

# Harras Moor

## BIODIVERSITY NET GAIN (BNG) ASSESSMENT

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## GLOSSARY

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BNG	Biodiversity Net Gain
CIEEM	Chartered Institute of Ecology & Environmental Management
DBH	Diameter at Breast Height
DEFRA	Department for the Environment, Food and Rural Affairs
EA	Ecological Assessment
HMP	Habitat Management Plan
HPI	Habitat of Principle Importance
JNCC	Joint Nature Conservation Committee
LBAP	Local Biodiversity Action Plan
MCIEEM	Member of Chartered Institute of Ecology & Environmental Management
NE	Natural England
NERC Act	Natural Environment and Rural Communities Act 2006
SSSI	Site(s) of Special Scientific Interest
TEP	The Environment Partnership
TT	Tetra Tech

## 1.0 INTRODUCTION

### 1.1 BACKGROUND

Tetra Tech was commissioned by Homes England in January 2022 to prepare a Biodiversity Net Gain (BNG) Assessment using “The Biodiversity Metric 3.0” (Natural England, 2021a), for the site known as Harras Moor.

The purpose of this assessment is to quantify the biodiversity value of the site prior to development, to provide insight as to the location of valuable habitats to inform the master planning process; this information will also be used to aid discussions around the predicted biodiversity value of the post development site. The biodiversity value of the site is measured in biodiversity units calculated according to the habitats present and their size, distinctiveness and condition. This will enable the quantitative calculation of the predicted change in biodiversity value as a result of the proposed development with the objective of achieving a net gain in biodiversity.

This report has been prepared by Consultant Ecologist Elizebeth Wilcox MSc and the conditions pertinent to it are provided in Appendix A.

### 1.2 SITE LOCATION

The ‘site’ is located at Harras Moor in Whitehaven, Cumbria and is centred at Ordnance Survey National Grid Reference NX986180 – see Figure 1. It comprises broadleaved plantation woodland, scattered trees, scrub, semi-improved grassland, marshy grassland, tall ruderal, hard standing and various boundary features including hedgerows and fences.

### 1.3 DEVELOPMENT PROPOSALS

The proposed development comprises a residential development to provide up to 370 new homes. An outline planning application (Planning ref: 4/18/2287/001) was submitted on the 26<sup>th</sup> June 2018. Access to the development will be from Caldbeck Road and Harras Road. The development will consist of two Phases: Phase 1 and Phase 2, each with a north and south element.

This report is version 1 using Illustrative Layout 04 E (All housing), provided in Appendix B.

### 1.4 EXISTING ECOLOGICAL INFORMATION

The following reports were completed for the site prior to the assessment:

- Tetra Tech (2021a), Harras Moor: Biodiversity Net Gain (BNG) Assessment, August 2021
- Tetra Tech (2021b), Harras Moor: Ecological Appraisal, August 2021
- Tetra Tech (2021c), Harras Moor: Report to inform habitats regulations assessment Stage 1 assessment of likely significant effects and stage 2 appropriate assessment, September 2021
- TEP (2019), Harras Moor, Whitehaven. Ecological Assessment. 5060.Eco.Harras.003
- TEP (2018a), Harras Moor, Whitehaven, Bat Survey Appendix Report. 5810.66.002
- TEP (2018b), Harras Moor, Whitehaven, Breeding Bird Survey. 5810.66.001
- TEP (2018c), Harras Moor, Whitehaven. Winter Bird Survey Report. 5060.Eco. HarrasMoorEcoandArb.005.004.

- TEP (2018d), Harras Moor, Whitehaven, Woodland and Hedgerow Survey Report. 5060.Eco.HarrasMoor.008.
- TEP (2018e), Harras Moor, Whitehaven, Vegetation Survey Technical Report. 5810.66.003
- TEP (2018f), Harras Moor, Whitehaven, Arboricultural Impact Assessment (Outline Planning). 5060.Eco.Harras.006.
- WYG (2018), Proposed development at Harras Moor: Design and Access Statement, May 2018

## **1.5 PURPOSE OF THE REPORT**

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The aim of this BNG assessment is to:

- Quantify the pre-development baseline biodiversity units present on site;
- Quantify the likely post-development biodiversity units possible on site, based on the available indicative plans; and
- Calculate the likely change in biodiversity units from pre to post-development to provide an indication of the biodiversity losses / gains that may occur should the proposed development proceed.

## 2.0 METHODOLOGY

### 2.1 BIODIVERSITY OFFSETTING GUIDANCE

The assessment has been made using Defra's Biodiversity Metric 3.0 (Natural England, 2021a), in conjunction with the user guide (Natural England, 2021b) and technical supplement (Natural England, 2021c). This comprises the following steps, described in Section 0.

### 2.2 HABITAT ASSESSMENT

#### 2.2.1 Site Visit

A site visit to undertake an update Ecological Appraisal of the site and to complete Condition Assessments of the habitats present. This was undertaken by Tetra Tech Senior Ecologist Patryk Gruba MCIEEM and Consultant Ecologist Elizebeth Wilcox on 7<sup>th</sup> July 2021, with a second visit by Elizebeth Wilcox on 15<sup>th</sup> July 2021 to complete the condition assessments using Biodiversity Metric 2.0 (see Section 2.2.5). The woodlands and disused football field in the east of the site were reassessed using the Biodiversity Metric 3.0 condition assessment sheets, (Natural England, 2021d) by Elizebeth Wilcox on 26<sup>th</sup> January 2022.

#### 2.2.2 Habitat Conversions

The pre-development habitats were mapped in accordance with the JNCC Phase 1 habitat types (JNCC, 2010) within the Ecological Appraisal (Tetra Tech, 2021b). The habitats were converted into UKHab<sup>1</sup> classification (UK Habitat Classification Working Group, 2018) for using the Biodiversity Metric 3.0 which are shown on Figure 2 and set out in Table 1.

**Table 1: Phase 1 habitats present on site and their conversion into UKHab**

Phase 1 habitat Category (Tetra Tech, 2021b)	Corresponding UKHab Category (Figure 2)
<b>Area</b>	
Broadleaved woodland – plantation	Woodland and forest – Other woodland; broadleaved
Scrub – dense/continuous	Heathland and shrub – Mixed scrub
Scrub – dense/continuous	Heathland and shrub – Bramble scrub
Neutral grassland – semi-improved	Grassland – Other neutral grassland
Marshy grassland	Grassland – Other neutral grassland
Tall ruderal	Sparsely vegetated land – Ruderal/Ephemeral
Buildings	Urban – Developed land; sealed surface
Hardstanding	Urban – Developed land; sealed surface
Swamp	Grassland – Other neutral grassland
Continuous bracken	Grassland - Bracken
Poor semi-improved grassland	Grassland – Modified grassland
Scattered trees	Urban tree
<b>Linear Feature</b>	

<sup>1</sup> UK Habitat Classification system, available from: <https://ecountability.co.uk/ukhabworkinggroup-ukhab>

Species-poor defunct hedge	Native Hedgerow
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Each of the post-development habitats, as set out on the draft illustrative layout (Appendix B), were assigned the UKHab category which was considered to best represent the habitat present post-development. See Figure 3 for the post-development habitats and Table for the conversion categories.

### 2.2.3 Area and Length

The area of identified habitats is calculated in hectares (ha), ignoring linear features such as hedgerows or ditches (the area should be measured to the centre line of such features). The length of linear features is measured separately in kilometres (km).

### 2.2.4 Habitat Distinctiveness

Each habitat is assigned a score for distinctiveness. Distinctiveness includes parameters such as species richness, diversity, rarity (at local, regional, national and international scales) and the degree to which a habitat supports species rarely found in other habitats (Treweek *et al.*, 2010). The categories for distinctiveness within Biodiversity Metric 3.0 are shown within

Table 2.

**Table 2: Categories and scores for distinctiveness**

Categories	Score
Very High (Section 41 Priority Habitats that are threatened, internationally scarce and require conservation action)	8
High (Section 41 Priority Habitats)	6
Medium (Semi-natural habitats not classified as Priority Habitat)	4
Low (Habitat of low biodiversity value)	2
Very Low (Little or no biodiversity value)	0

### 2.2.5 Habitat Condition

The condition of each habitat is assessed using the methods set out in the Biodiversity Metric 3.0: habitat condition assessment sheets with instructions (Natural England, 2021c).

This approach determines how many of the condition criteria descriptions for each habitat type are met or are not met. For each habitat type, thresholds then apply for the numbers of condition criteria that must be met. For instance, if any of the 8 condition criteria for Ditches are not met, then the condition should be assigned as Moderate.

Conditions and associated scores in the DEFRA 3.0 Metric are as follows:

- Good: 3
- Fairly Good: 2.5
- Moderate: 2
- Fairly Poor: 1.5
- Poor: 1
- N/A Agriculture: 1
- N/A: 0



A number of lower distinctiveness habitats including cropland and urban habitats are assigned default values and do not require a detailed condition assessment.

For linear features including Hedgerows and Lines of Trees, the condition assessment is simplified, whereby a threshold for achieving good, moderate and poor is weighted solely upon criteria met.

Conditions and criteria thresholds for Hedgerows without trees are detailed in Table 4.

**Table 4: Hedgerows condition assessment and weighting**

Condition	Criteria Met	Score
Good	No more than 2 failures in total and no more than 1 in any functional group.	3
Moderate	No more than 4 failures in total and fails both attributes in a maximum of one functional group.	2
Poor	Fails a total of more than 4 attributes or both attributes in more than one functional group.	1

## 2.2.6 Strategic Significance

The strategic significance of a site within the Biodiversity Metric 3.0 is based upon whether the location of the development, and/or off-site work, has been identified locally as significant for nature. This is determined by information set out in local plans or policies.

Strategic significance scores in the Biodiversity Metric 3.0 are as follows:

- High strategic significance:
  - High potential & within area formally identified in local policy      1.15
- Medium strategic significance:
  - Location ecologically desirable but not in local strategy      1.1
- Low Strategic Significance:
  - Low potential and area/compensation not in local strategy/ no local strategy      1

Within the Copeland Local Plan (Copeland Borough Council, 2013), part of the site is included under the following policy:

- *Policy HSG 2: New Housing Allocations: Land is designated for housing purposes in Table HS7 which can accommodate 852 dwellings on a mixture of new and previously used sites. Planning permission will only be granted for their development where the proposed scheme incorporates the requirements of Policies outlined in Copeland Local Plan 2013 – 2028.*

The site is formally designated as a residential site. The Copeland Local Plan 2017 – 2035 Preferred options draft (Copeland Borough Council, 2020) states the following regarding the site;

***Harras Moor, Whitehaven 23.05ha Approx. 370m homes:***

*Harras Moor has the potential to provide a high quality and distinctive new residential development comprising a mix of housing types, sizes and tenure to cater for local needs at an appropriate density. The scale of the site warrants a Masterplan approach to development which should allow development to be based on established key design principles. This will ensure that the development provides attractive streets, generous public open spaces and high quality landscaping that reinforces the existing mature vegetation and provides distinctive green corridors. The site provides the opportunity*

*to establish new and safer pedestrian routes to key existing services, particularly the new education campus.*

The Cumbria Local Action Plan (LBAP) includes habitat targets for the following habitats of relevance to the site (Cumbria Wildlife Trust, 2009): Boundary: Hedgerows

The MAGIC website<sup>2</sup> indicates that 'Deciduous Woodland' is present within the central area of the site, south of the industrial estate. This is included on both the National Forest Inventory and the Priority Habitat Inventory for England<sup>3</sup>. The woodland is plantation screening woodland and is unlikely to be a Habitat of Principle Importance (HPI) under the Natural Environment and Rural Communities (NERC) Act 2006, however it serves as a green corridor. The woodlands onsite comprise a connecting feature between the east and west of the site. TEP (2018a) reported bat foraging and commuting activity associated with the majority of the woodlands onsite and valued the site using Wray et al. (2010) as of county importance for pipistrelle species and local importance for noctule, brown long-eared and Myotis species. Based on this evidence, the broadleaved woodlands onsite have been assigned a strategic significance value of 'medium'.

Therefore, for this assessment, all habitats have been allocated a strategic significance of 'low', except for 'native hedgerow' and 'woodland and forest – other woodland; broadleaved' which have been classified as 'medium'.

## 2.2.7 Risk Factors

As part of any proposed habitat creation and restoration, risk factors must be considered to correct for disparity, delay or risk, these are:

- Time to target condition; and,
- Difficulty of restoration / creation.

To take this into account, creation of a habitat which will take many years to get to target condition or is difficult to recreate, would have a reduced biodiversity value compared to the same habitat already *in situ*. Therefore, to compensate for loss of that original habitat a larger area would be required as an offset.

Default values are provided for a range of habitats as part of the Biodiversity Metric 3.0. These may be altered if informed by knowledge of the site and proposed management prescriptions, as detailed within the habitat assessment tables.

## 2.3 LIMITATIONS

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The optimal period to undertake a botanical survey is April-September. The initial condition assessment survey was completed in July which is within the optimal survey window. The woodland and disused football field were reassessed in January 2022, which is outside of the optimal survey window. For the woodland assessment, of the thirteen criteria, two criteria could not be assessed due to the time of year:

8. Tree health

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<sup>2</sup> [www.magic.defra.gov.uk](http://www.magic.defra.gov.uk)

<sup>3</sup> <https://jncc.gov.uk/our-work/uk-bap-priority-habitats/#list-of-uk-bap-priority-habitats>

## 9. Vegetation and ground flora

The data on tree health collected during the summer was used to inform the assessment and the total value that could be scored was adjusted to account for the fact that the ground flora could not be assessed (See Appendix C, Table C1). The adjusted score ranges are given below:

- Total score >29 (30 to 36): Good (3)
- Total score 23 to 29: Moderate (2)
- Total score <23 (10 to 22): Poor (1)

As such this is not considered to be a significant limitation to the woodland assessment as the majority of the criteria could be fully assessed.

However, the assessment of the disused football field during the winter season, is considered to be a limitation to the survey. Grassland habitats cannot be fully assessed in winter as many grassland species are annual and die back during the winter season. Therefore, this may give an underestimation of the number of species present (see Appendix C Table C16). In addition, the structure of grassland vegetation varies during the growing season. In winter, vegetation tends to be flattened, affecting the height and structural diversity of the sward. During the January assessment ten quadrats (1m x 1m) were taken in the disused football field and the collated data was used to inform the assessment (see Appendix C Table C16). The average number of species found across the ten quadrats was 4.7, below the threshold range of 6-8. The margins of the disused football field have been mapped separately from the central playing area and have been assigned a higher condition value, to indicate that this area is distinct from the rest of the football field and is likely to have a species average within the 6-8 range.

The majority of the site was fully accessible. The only areas that could not be accessed were two fields containing horses in the south of the site, west of Caldbeck Road (see Appendix C Table C13 and C15). These fields were not entered but were viewed from the field boundary using binoculars. Sufficient views of the habitats and species being assessed were possible, so this is not considered to be a significant limitation to the survey methodology.

To conduct the assessment of habitats pre and post-development required conversion of the JNCC Phase 1 habitat types (Tetra Tech, 2021b) and the draft illustrative layout (Appendix B) into UKHab habitat categories. This information could then be relayed into the Biodiversity Metric 3.0 in terms of the habitat areas being retained, lost or enhanced. Whilst not a significant limitation, when using the calculation tool to convert the JNCC Phase 1 habitat types into UKHab types, the different habitat types do not exactly align. Therefore, some habitats were included within a more general habitat category under UKHab to allow the calculation tool to be applied. For transparency, the conversion tables in Section 0.2 (Tables 1 and 2) set out which habitats have been paired during the conversion.

The outputs of Biodiversity Metric 3.0 are not absolute values but provide a proxy for the relative biodiversity worth of a site pre- and post-intervention. The quality and reliability of outputs is dependent upon the quality of the inputs. The calculations within this report should be reviewed and updated should there be any significant changes to the ecological conditions on site. As the change in biodiversity units is determined by subtracting the number of pre-intervention biodiversity units (i.e. those originally existing on-site and off-site) from the number of post-intervention units (i.e. those projected to be provided), this report should be updated should the proposals for the site change (Appendix B).

Biodiversity Metric 3.0 differs from the previous version in various ways, including the criteria used for assessing habitat condition in the field. The majority of the condition assessments used within this assessment were conducted using Biodiversity Metric 2.0 and have been transcribed onto the 3.0 condition assessment forms. Species lists and photographs from the Phase 1 survey, were used when

any additional information was needed. Any habitats where the assessment criteria significantly changed between the two versions (such as for woodlands), these habitats were reassessed using the 3.0 condition assessment forms during the January survey.

The Biodiversity Metric 3.0 does not override or undermine any existing planning policy or legislation, including the mitigation hierarchy, which should always be considered as the metric calculation is applied. Furthermore, Biodiversity Metric 3.0 does not change the protection afforded to biodiversity. Existing levels of protection afforded to protected species (such as for bats) and to habitats, are not changed by use of this or any other biodiversity metric.









This assessment aims to provide guidance to steer decision making on site in relation to landscaping and master planning to maximise biodiversity gains and to inform decision-making around whether the proposed scheme has the potential to / would likely meet policy requirements. The actual balance of gains/losses will likely differ depending on the nature of the finalised detailed landscaping plans. Any significant changes to the indicative layouts, will alter the results of the BNG assessment.



## 2.4 ASSUMPTIONS

This assessment is based upon the draft Illustrative layout (Appendix B) for the site boundary and therefore provides an indication of the biodiversity gains/losses possible, based on the information available. A landscape plan for the site was not available for this assessment. As no landscape plan was available, a 'best-fit' approach has been taken, as to the types of habitats and conditions that will be present post-development.

Some categories indicated on the draft illustrative layout, such as open space do not have an obvious equivalent habitat in UKHab. Habitats such as these have been converted into what are considered the most appropriate UKHab Categories (Table 5). In this case, it has been assumed that unless the area is one of the retained grassland areas documented in 'Assumptions' (Section 2.4, *Retained Areas*) the habitat most likely to be present post development is 'Grassland – modified grassland'.

**Table 5: Proposed habitats shown on the Draft Illustrative Layout (Appendix B) and their conversion into UKHab categories**

Habitat terminology on Illustrative layout (Appendix B)	Corresponding UKHab Category (Figure 3)
 Indicative dwellings	Urban – Developed land; sealed surface
 Indicative back gardens	Urban – Vegetated garden
 Indicative primary streets	Urban – Developed land; sealed surface
 Indicative shared surface / private drives	
 Open space	Grassland - Modified grassland
	Grassland – Other neutral grassland
 Retained trees / woodland	Woodland and forest - Other woodland; broadleaved
 Proposed trees	Urban - tree
 Acoustic bund	Grassland - Modified grassland

 Attenuation areas	Urban – Sustainable urban drainage feature
 Local Equipped Area of Play (LEAP)	Urban – Artificial unvegetated, unsealed surface

The habitat types present pre and post development are detailed in Appendix C and D. The condition of the post-development habitats are shown in Table 6.

**Table 6: UKHab types present post-development with condition**

UKHab habitat type		Condition
Broad habitat	Habitat type	
Woodland and Forest	Other woodland; Broadleaved	Moderate
Grassland	Modified grassland	Moderate
Heathland and shrub	Mixed scrub	Moderate
Urban	Developed land; sealed surface	N/A
Urban	Artificial unvegetated, unsealed surface	N/A
Urban	Urban tree	Moderate
Urban	Sustainable urban drainage feature	Moderate
Urban	Vegetated garden	Poor

Unless otherwise stated, post-development habitats will be created to a standard that will comply with the UKHab condition assessment descriptions. The expected condition of post-development habitats are given in Table 6. Improving habitat condition or the creation of a more distinctive habitat type such as 'other neutral grassland' instead of 'modified grassland', presents opportunities towards improving scores and achieving net gain (See Section 3.2).

The expected target conditions of post-development habitats as input into the Biodiversity Metric 3.0 are shown in Table 4 (see section 2.2.5).

### **Retained areas**





Four areas of existing other neutral grassland will be protected and retained for inclusion in the post-development layout these include parts of TN24 (marshy grassland in the south of the site), TN31 (grassland north of the industrial estate) and parts of TNs 32 and 34 not used for SUDS or acoustic bunds (Figure 2 and Figure 3).

It is assumed that woodlands will be retained except for a few obvious areas of land take, described below. Areas of woodland that will be lost include some of the woodland south of the industrial estate (Figure 2, TN2) and part of the woodland in the centre of the site (Figure 2 TN28) for new roads. Retained woodland areas will require protection during construction. The retained woodland will over time be enhanced from moderate to good value (actions to achieve this are outlined in the Habitat Management Plan (HMP).

### ***Scrub and proposed planting***

Assumptions have also been made for the scrub areas present post development. The draft illustrative layout (Appendix B) has been interpreted as depicting different planting types, shown below in Table 7. From the illustrative layout, an approximate number of 210 trees to be included within the new development, have been included in the Biodiversity Matrix 3.0 calculation. Tree size has been assumed as small (30cm Diameter at Breast Height (DBH) at maturity).

**Table 7: Proposed planting types interpreted from the draft illustrative layout (Appendix B)**

<b>Proposed planting as depicted on the Draft illustrative layout (Appendix B)</b>	<b>Interpreted UKHab habitat type</b>	<b>UKHab Description of habitat</b>	<b>Habitat distinctiveness &amp; score</b>
	Urban - Urban tree	Non-woodland habitats that include trees growing at low density, with canopy cover <20%.	Medium, 4
	Heathland and shrub – mixed scrub	Dense scrub comprised of a mixture of species without a single species dominant, native to the UK.	Medium, 4
	Woodland and forest – Other woodland; broadleaved	Broadleaved mixed and yew woodland not meeting any of the other woodland definitions	Medium, 4
	Native Hedgerow	A boundary line of shrubs, provided that at one time the shrubs were stock proof and more or less continuous. Comprised of species native to the UK.	Low, 2

Should the proposed planting vary from Table 7 this will alter the results of the BNG assessment. Using native planting throughout the site, offers opportunities towards improving distinctiveness scores and achieving net gain.

### ***Existing hedgerows***

There are currently three hedgerows present onsite pre-development (Figure 2). Of these, Hedgerow 2 will be entirely removed result of the development. The entirety of Hedgerows 1 and 3 are expected to be retained within open space areas surrounding the industrial estate. Should the retention/removal of hedgerows vary from what is outlined above, this will alter the results of the BNG assessment.

### ***Marshy grassland and swamp***

The EA (Tetra Tech, 2021b) noted the presence of swamp vegetation within marshy grassland at two points onsite. These have been assessed as the UKHab Grassland – Other neutral grassland, which includes the Phase 1 Marshy grassland type, rather than Wetland – Fens (upland and lowland) which

includes the Phase 1 swamp type. The decision was made to include the swamp areas as part of the marshy grassland rather than assessing them separately, as they are small elements (<0.1ha) of a larger habitat type and don't hold standing water throughout the year.

***Other habitats***

The draft Illustrative Layout (Appendix B) shows the approximate volume of gardens, buildings and driveways that will be present onsite post-development. This detail is not included within the draft illustrative layout. In order to include gardens in the calculation for post-development habitats a conservative ratio of 40% Urban – Vegetated garden to 60% Urban – Developed land; sealed surface, has been used. This estimate can be adjusted when the landscape plan is available, to reflect the true volume of gardens that will be present post development.



## 3.0 RESULTS

The data used to inform the condition assessments for the habitats pre- and post-development and calculations from the Biodiversity Metric 3.0 are provided in Appendix C and D. Where possible (i.e. the same habitat type achieved the same condition assessment score through passing or failing the same criteria), habitats have been combined to reduce the number of tables and avoid unnecessary repetition throughout the report.

The pre-development habitats have been mapped in accordance with UKHab for use with the Biodiversity Metric 3.0, as shown on Figure 2. Figure 3 shows the post-development habitats using the UKHab classifications.

### 3.1 HEADLINE HABITAT RESULTS

Headline habitat results are provided in Table 8. This shows the scores that will be achieved with the implementation of the habitats within the Draft Indicative layout (Appendix B), achievement of the conditions as set out in Section 2.4. **Development proposals would likely result in a net loss of approximately 58.91 habitat units (-44.56%) and a loss of approximately 0.29 hedgerow units (-27.80%).**

**Table 8: Headline Habitat, Hedgerow and River Results**

Project Stage	Habitat Type	Units
On-site baseline	Habitat units	132.21
	Hedgerow units	1.06
	River units	0.00
On site post-intervention (including habitat retention, creation & enhancement)	Habitat units	74.30
	Hedgerow units	0.77
	River units	0
Total net unit change (including all on-site habitat retention, creation and enhancement)	Habitat units	<b>-57.91</b>
	Hedgerow units	<b>-0.29</b>
	River units	<b>0.00</b>
Total net % change (including all on-site habitat retention, creation and enhancement)	<b>Habitat units</b>	<b>-43.80%</b>
	<b>Hedgerow units</b>	<b>-27.80%</b>
	<b>River units</b>	<b>0.00%</b>

Based on the current layout and assumptions outlined in Section 2.4, 58.91 additional habitat units and 0.29 additional hedgerow units will be required for the project to 'break even' and a total of 72.13 habitat units and 1.16 hedgerow units would be required to achieve a 10% net gain value.

### 3.2 RECOMMENDATIONS

The following recommendations suggested by Homes England are detailed below and shown on Figure 4:



- Four SUDS areas to be created as open water and included within Biodiversity Metric 3.0 as Lakes – Ponds (non-priority).
- Increase the native scrub area by 5m.
- Add a new native species-rich hedgerow to the roadside on Caldbeck Road (Hedgerow 4).
- New native species-rich Hedgerows 5 and 6 on the western edge of the development.
- Add small urban street trees to the spine road at a spacing of 15m between trees. The main spine road is approximately 600m long (therefore 40 small trees at 15m distance along one side of the road) and the spur road from the spine road to the west of the site is approximately 520m long (therefore 34 small trees at 15m distance, on one side of the road).
- Enhancement of existing Hedgerow 3 from Moderate to good through removal of non-native species (Criteria D1) and appropriate management of the ground flora to reduce nutrient richness and disturbance (Criteria C2).
- Creation of other broadleaved woodland as screen planting adjacent to the industrial estate and in the east of the site.
- Create other neutral grassland (marshy grassland) in area adjacent to SUDS and on woodland margins.
- Enhancement of retained other neutral grassland north of houses and gardens on Chatsworth Drive (Appendix C TN24), from poor to moderate, through removal of undesirables and appropriate management to improve structural diversity of sward.
- Enhancement of retained other neutral grassland in west of the site (Appendix C TN34), from moderate to good through appropriate management to improve structural diversity of sward.
- Children's play areas are amenity grassland (poor condition) rather than Urban - artificial unvegetated sealed surface.

The effect of the inclusion of the recommendations listed above are shown in the Table 9.

**Table 9: Headline Habitat, Hedgerow and River Results with the inclusion of recommendations**

Project Stage	Habitat Type	Units
On-site baseline	Habitat units	132.21
	Hedgerow units	1.06
	River units	0.00
On site post-intervention (including habitat retention, creation & enhancement)	Habitat units	83.68
	Hedgerow units	2.37
	River units	0
Total net unit change (including all on-site habitat retention, creation and enhancement)	Habitat units	<b>-48.53</b>
	Hedgerow units	<b>1.31</b>
	River units	<b>0.00</b>
Total net % change (including all on-site habitat retention, creation and enhancement)	<b>Habitat units</b>	<b>-36.71%</b>
	<b>Hedgerow units</b>	<b>123.83%</b>
	<b>River units</b>	<b>0.00%</b>

Additional changes to the layout that would increase the volume of on-site post-intervention biodiversity units include:

- Replacing 'other neutral grassland' with like for like, or a more distinctive habitat type such as 'lowland meadows'. A lowland meadow habitat or other wildflower planting, may require long term management.
- Enhancement of more onsite areas, such as areas of grassland. These would require environmental protection during the construction process to avoid compaction from vehicle movements and could not be used for storage of materials.

### **3.3 SUMMARY**

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The results of the assessment are based on an Indicative layout. A more thorough assessment of total net % change can be calculated when a landscape plan has been produced for the site. Changes to the landscaping across the site offers the potential to improve biodiversity units, to reduce losses and the potential offsetting that may be required.

Where any changes to the layout and landscaping of the site occur, this assessment should be reviewed and updated to best reflect the current level of likely gains or losses across the site as a result of the development.

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## FIGURES

**Figure 1 – Site Location Plan**

**Figure 2 – Pre-Development Habitats**

**Figure 3 – Post-Development Habitats**

**Figure 4 – Post-Development Habitats Additional Enhancements**





# Site Location Plan

Harras Moor



Homes England

## Legend

Site boundary

## Notes:

Drawn by: BB  
Checked by: EW  
Office: Southampton

Figure No. 1  
Revision No. A

0 300 600 900 Meters  
Scale 1:20,000 @A3

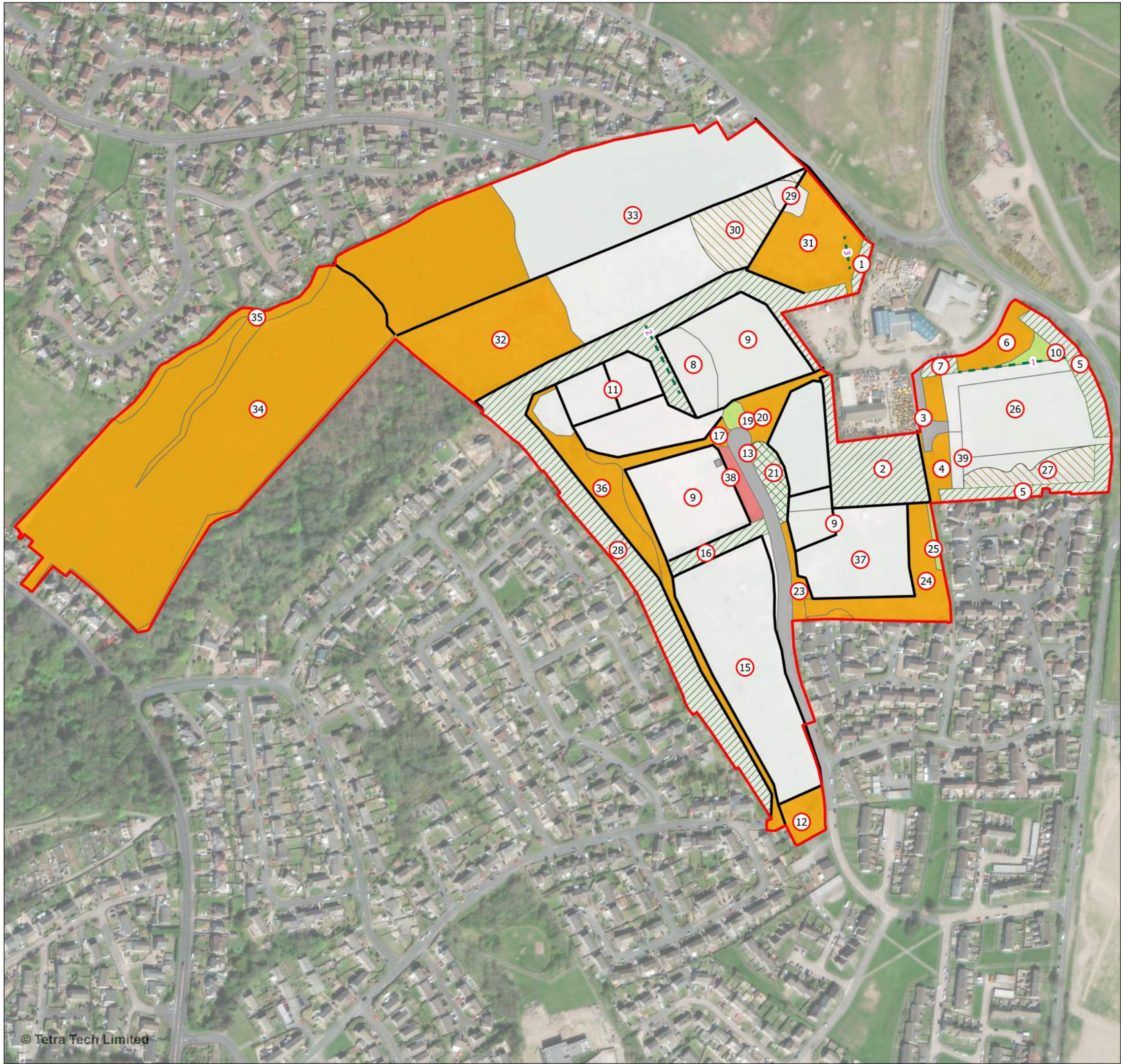
04 August 2021  
NGR: 298633E 517973N

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Hampshire, SO30 2AF





# Pre-Development Habitats

Harras Moor



## Homes England

### Legend

- Site boundary
- Grassland - Bracken
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Heathland and shrub - Mixed scrub
- Sparsely vegetated land - Ruderal/Ephemeral
- Urban - Developed land; sealed surface
- Woodland and forest - Other woodland; broadleaved
- Heathland and shrub - Bramble scrub
- Native Hedgrow
- Urban - Built linear features
- Target note

### Notes:

Drawn by: SB  
Checked by: EW  
Office: Southampton

Figure No. 2  
Revision No. A

0 40 80 120 Meters  
Scale 1:3,300 @A3

28 February 2022  
NGR: 298633E 517926N

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# Post-Development Habitats

Harras Moor

Homes England



## Legend

- Site boundary
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Heathland and shrub - Mixed scrub
- Urban - Developed land; sealed surface
- Woodland and forest - Other woodland; broadleaved
- Urban – Artificial unvegetated, unsealed surface
- Urban – Sustainable urban drainage feature
- Native Hedgrow
- Scattered Trees

Notes: Basemap = A090070-410 004E Harras Moor Illustrative Layout

Drawn by: CD  
Checked by: EW  
Office: Southampton

Figure No. 3  
Revision No. A

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Scale 1:3,500 @A3

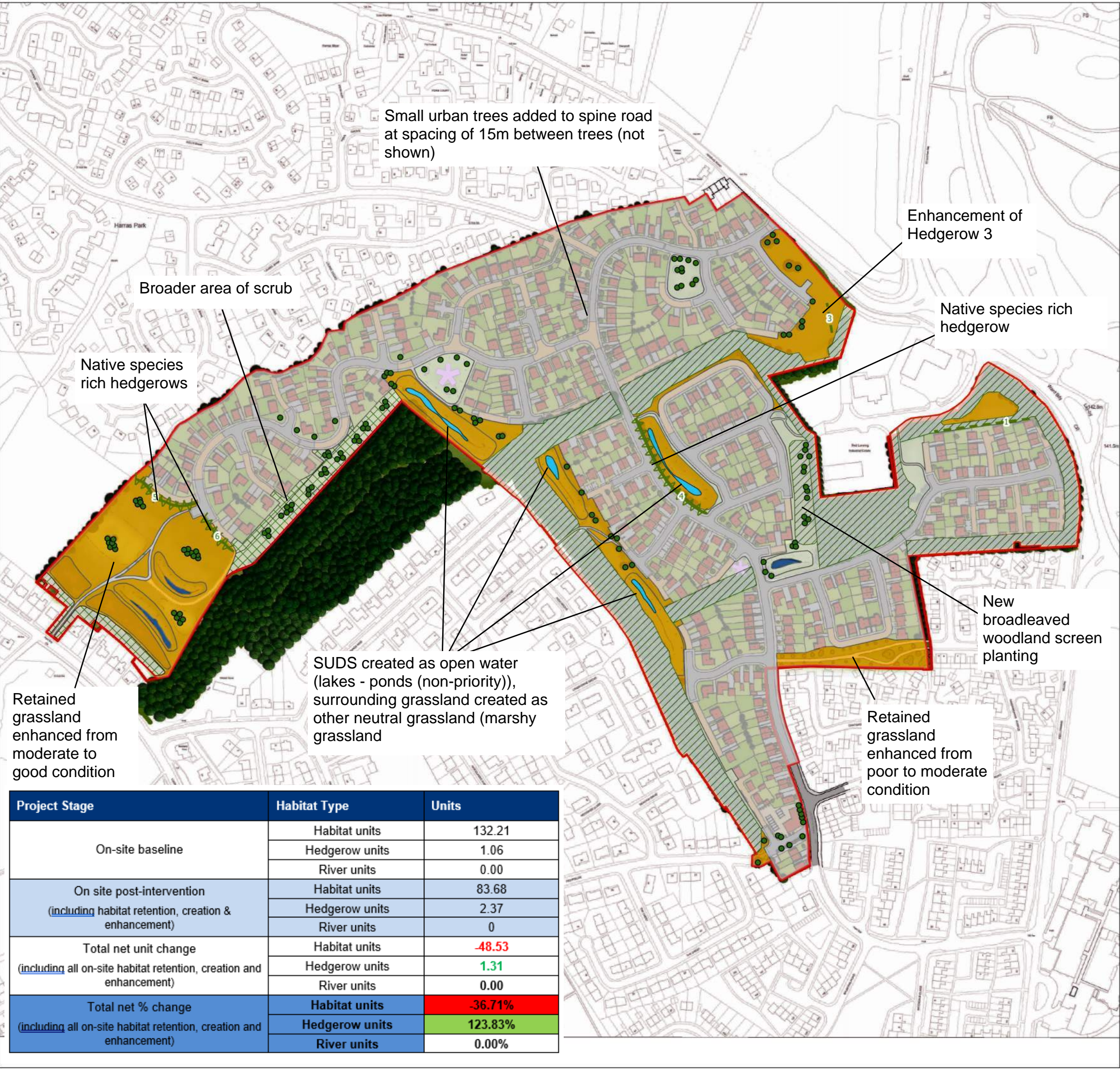
02 March 2022  
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Post-Development Habitats  
Additional Enhancements

Harras Moor

Homes England

Legend

- Site boundary
- Grassland - Modified grassland
- Grassland - Other neutral grassland
- Heathland and shrub - Mixed scrub
- Urban - Developed land; sealed surface
- Woodland and forest - Other woodland; broadleaved
- Urban – Sustainable urban drainage feature
- Lakes - Ponds (non-priority habitat)
- Intact hedge - native species-rich
- Defunct hedge - native species-poor
- Scattered Trees

Notes: Basemap = A090070-410 004E Harras Moor Illustrative Layout

Drawn by: SB  
Checked by: EW  
Office: Southampton

Figure No. 4  
Revision No. A

0 50 100 150 Meters  
Scale 1:3,500 @A3

02 March 2022  
NGR: 298633E 517972N

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Project Stage	Habitat Type	Units
On-site baseline	Habitat units	132.21
	Hedgerow units	1.06
	River units	0.00
On site post-intervention (including habitat retention, creation & enhancement)	Habitat units	83.68
	Hedgerow units	2.37
	River units	0
Total net unit change (including all on-site habitat retention, creation and enhancement)	Habitat units	-48.53
	Hedgerow units	1.31
	River units	0.00
Total net % change (including all on-site habitat retention, creation and enhancement)	Habitat units	-36.71%
	Hedgerow units	123.83%
	River units	0.00%



## APPENDIX A – REPORT CONDITIONS

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The report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections’. Environmental conditions can vary, and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions. The “shelf life” of the Report will be determined by a number of factors including; its original purpose, the Client’s instructions, passage of time, advances in technology and techniques, changes in legislation etc. and therefore may require future re-assessment.

The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. Tetra Tech accept no liability for issues with performance arising from such factors.

## **APPENDIX B – DRAFT ILLUSTRATIVE LAYOUT AND OTHER SUPPORTING DOCUMENTS**



- Indicative dwellings
- Indicative primary streets
- Indicative shared surface / private drives
- Open space
- Indicative back gardens
- Retained trees / woodland
- Proposed trees
- Acoustic bund
- Attenuation areas
- Local Equipped Area of Play (LEAP)

**Harras Moor, Whitehaven  
Homes England**

**Illustrative layout**

TTE Proj No	Drwn / date	Ch'ked / date	Appr'd / date	Scale @ A2	Suitability		
090070-410	EI / FEB '22	BR/ FEB '22	JL/ FEB '22	1:2500	-		
Client Proj No	Origin	Vol/System	Level/Loc	Type/Code	Role	Drwg no	Revision
-	TTE	00	XX	DR	UD	04	E

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## APPENDIX C: A-1 SITE HABITAT BASELINE

The following tables outline the Condition Assessments undertaken with reference to the Technical Supplement (Natural England, 2020c). Refer to the Target Notes (TN) on Figure 2 for locations of habitats.

### Woodland and forest – Other woodland; broadleaved

Native and non-native trees and shrubs as defined in the England's Woodland Biodiversity Group condition assessment for non-SSSI woodlands: <https://woodlandwildlifetoolkit.sylva.org.uk/assess>

**Table C1: Condition assessment of plantation broadleaved woodland north of Red Lonning Industrial Estate**

<b>Map reference</b>	TNs 1, 2, 5, 7, 16 and 28		
<b>Habitat</b>	Woodland and Forest – other woodland; broadleaved		
<b>Habitat Description</b>	<p>TN1: Small strip of woodland north of the industrial estate. Trees were generally young to semi-mature. Species present included: ash, hawthorn, alder, rowan, sycamore, oak, cherry, pine, willow and poplar.</p> <p>TN2: Block of broad-leaved plantation woodland south of the industrial estate. Woodland was even aged. Species present included: ash, sycamore, beech, elder, rowan, wild cherry and crack willow.</p> <p>TN5: Woodland present between the discharged football field and housing estate. Trees were generally young to semi-mature. Species present included: ash, alder, hazel, crack willow and oak.</p> <p>TN7: A small area of plantation woodland adjacent to industrial units. Trees semi-mature. Species present included: ash, alder, osier and Scot's pine.</p> <p>TN16: Block of woodland separating horse grazed fields. Trees were semi-mature. Species present included: ash, blackthorn, willow, elder, oak, pine and rowan.</p> <p>TN28: Continuous woodland on the western site boundary and across the centre of the site. Trees were generally young to semi-mature. Species present included: hawthorn, ash, Norway maple, silver birch, sycamore, oak and rowan.</p>		
<b>Area</b>	2.94 ha		
<b>Distinctiveness</b>	Medium		
<b>Condition Table</b>	Woodland		
<b>Condition Assessment</b>	Assessment Criteria	Site Condition	Good (3 points)/ Moderate (2 points)/ Poor (1 point)
	1. Age distribution	Two age classes present. (young and	Moderate - 2

	of trees <sup>4</sup>	intermediate, present in 5/6 plots).	
	2. Wild, domestic and feral herbivore damage	No significant browsing pressure is present in 40% or less of whole woodland. <sup>5</sup> Significant browsing pressure was evident in 1 of 6 plots.	Moderate - 2
	3. Invasive plant Species <sup>6</sup>	Rhododendron and laurel not present, other invasive species <10%. Himalayan balsam and yellow archangel were present (below the <10% threshold).	Moderate – 2
	4. Number of native tree species	Five or more native tree or shrub species found across woodland parcel. Ash, alder, hawthorn, oak, willow and rowan were generally consistently present across the woodland.	Good - 3
	5. Cover of native tree and shrub species	50 - 80% of canopy trees and 50 - 80% of understory shrubs are native across all plots.	Moderate - 2
	6. Open space within woodland. <sup>7</sup>	10 – 20% of woodland has areas of temporary open space, unless woodland is <10ha in which case lower threshold of 10%	Good - 3

<sup>4</sup> See EWBG method INDICATOR 1 for more information. If tree species is not a birch, cherry or Sorbus: 0 – 20 years (Young); 21 - 150 years (Intermediate); and >150 years (Old). A recognisable age class should be a consistent recognisable layer across the woodland or stand being assessed. Presence of a few saplings would not indicate that the woodland has an 'age class' of young trees.

<sup>5</sup> See EWBG method INDICATOR 2 for more information. Browsing pressure is considered to be significant where >20% of vegetation visible within each survey plot shows damage from any type of browsing pressure listed.

<sup>6</sup> See EWBG method INDICATOR 3 for more information. Check for presence of the following invasive non-native species: American skunk cabbage *Lysichiton americanus*; Himalayan balsam *Impatiens glandulifera*; Japanese knotweed *Fallopia japonica*; Cherry Laurel *Prunus laurocerasus*; Shalloon *Gaultheria shallon*; Snowberry *Symphoricarpos albus*; Variegated yellow archangel *Lamiasstrum galeobdolon* subsp. *argentatum*; and Rhododendron *Rhododendron ponticum*.

<sup>7</sup> See EWBG method INDICATOR 6 for more information. Open space within woodland in this context is temporary open space in which trees can be expected to regenerate (e.g. glades, rides, footpaths, areas of clear-fell). This differs from permanent open space where tree regeneration is not possible or desirable (e.g. tarmac, buildings, rivers). Area is at least 10m wide with less than 20% covered by shrubs or trees.

		does not apply. Woodland is less than 10ha threshold has approximately 5% open space.	
	7. Woodland Regeneration. <sup>8</sup>	One or two classes only present in woodland. Across the whole woodland 3 classes were present total, usually one class was present per plot, with 2 being the maximum (average used).	Moderate - 2
	8. Tree health	11% to 25% mortality and/or crown dieback. Evidence of ash die back in 3 of 8 plots during summer assessment. Ash dieback classed as a high risk disease, particular as it affects the woodland on the western edge of the site which is dominantly ash.	Poor 1
	9. Vegetation and ground flora	Not assessed (wrong time of year).	N/A
	10. Woodland vertical structure. <sup>9</sup>	Two storeys across all survey plots (canopy and shrub layer).	Moderate - 2
	11. Veteran trees. <sup>10</sup>	No veteran trees present in woodland.	Poor - 1

<sup>8</sup> See EWBG method INDICATOR 8 for more information. This indicator measures regeneration potential of the woodland by considering three classes: seedlings; saplings; and young trees of 4-7 cm DBH. All three classes would fall in the 'young' category of the 'age distribution of trees' indicator, the regeneration indicator is gathers additional information by considering regeneration potential i.e. if seedlings, saplings and young trees are all present that means natural regeneration processes are happening.

<sup>9</sup> This indicator is looking at structural diversity and is useful to understand in conjunction with the age of trees in a woodland. Vertical structure is defined as the number of canopy storeys present. Possible storey values are: 1) Upper; 2) Complex: recorded when the stand is composed of multiple tree heights that cannot easily be stratified into broad height bands (such as upper, middle or lower); 3) Middle; 4) Lower; and 5) Shrub layer.

<sup>10</sup> See EWBG method INDICATOR 12 for more information. All ancient trees are veteran trees, but not all veteran trees are ancient. A veteran tree may not be very old, but it has decay features, such as branch death and hollowing. These features contribute to its biodiversity, cultural and heritage value. Veteran trees can be classified if they have four out of the five following features:

1. Rot sites associated with wounds which are decaying >400 cm<sup>2</sup>;

	12. Amount of deadwood	50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps. Deadwood was present primarily as fallen deadwood > 20cm diameter, in 4 out of 6 plots.	Good - 3
	13. Woodland Disturbance <sup>11</sup>	Less than 1 hectare in total of nutrient enrichment across the woodland areas and/or less than 20% of woodland area has damaged ground. The primarily disturbance was flytipping.	Moderate – 2
<b>Result</b>	<b>Moderate</b> – Passes 25 out of 36 criteria (ground flora criteria not included).  Total score >29 (30 to 36): Good (3) <b>Total score 23 to 29: Moderate (2)</b>  Total score <23 (10 to 22): Poor (1)		

## Urban – Developed land; sealed surface

**Table C2: Condition assessment of Urban – Developed land; sealed surface (all buildings and hardstanding on site)**

<b>Map Reference</b>	TN3, TN13, TN38
<b>Habitat</b>	Urban – Developed land; sealed surface
<b>Habitat Description</b>	TN3: Hardstanding: road south of Red Lonning Industrial Estate. TN13: Caldbeck Road. TN38: Building: horse shelter.
<b>Area</b>	0.31 ha
<b>Distinctiveness</b>	V.Low
<b>Condition Table</b>	N/A
<b>Condition Assessment</b>	N/A – no condition assessment required.

2. Holes and water pockets in the trunk and mature crown >5 cm diameter;

3. Dead branches or stems >15 cm diameter;

4. Any hollowing in the trunk or major limbs;

5. Fruit bodies of fungi known to cause wood decay.

<sup>11</sup> See EWBG method INDICATOR 15 for more information. Examples of disturbance are: significant nutrient enrichment; soil compaction from trampling, machinery or animal poaching; litter.



<b>Result</b>	<b>N/A - Other</b> – default score.
---------------	-------------------------------------

## Grassland – Other neutral grassland

**Table C3: Condition assessment of area of marshy grassland at the entrance to the disused football field**

<b>Map reference</b>	TN4		
<b>Habitat</b>	Grassland – Other neutral grassland		
<b>Habitat Description</b>	Small area of marshy grassland at the entrance to the disused football field		
<b>Area</b>	0.19 ha		
<b>Distinctiveness</b>	Medium		
<b>Condition Table</b>	Grassland – medium, high & very high distinctiveness		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward.	Marshy grassland. Fits g3c8 ( <i>Holcus-Juncus</i> neutral grassland) type best, although missing constant species creeping bent and creeping buttercup. False oat grass and other ruderal species such as creeping thistle occasional. Possible between g3c8 and g3c5 ( <i>Arrhenatherum</i> neutral grassland). Not considered a good example of habitat.	Fail
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Yes, variation in sward height due to variation in grass species.	Pass
	3. Cover of bare ground between 0 and 5%, including localised areas, for example, rabbit warrens.	0%	Pass

	4. Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	0% bracken. <5% scrub.	Pass
	5. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species 1 and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.	c. 10% cover of undesirables.	Fail
Result	<b>Moderate – Passes 3 out of 5 criteria.</b>  Passes 5 of 5 criteria -Good (3) <b>Passes 3 or 4 of 5 criteria - Moderate (2)</b> Passes 0, 1 or 2 of 5 criteria - Poor (1)		
Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , creeping buttercup <i>Ranunculus repens</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> , cow parsley <i>Anthriscus sylvestris</i> .			

## Grassland – Other neutral grassland

**Table C4: Condition assessment of marshy grassland alongside road to Red Lonning industrial estate.**

<b>Map reference</b>	TN6		
<b>Habitat</b>	Grassland – Other neutral grassland		
<b>Habitat Description</b>	Marshy grassland alongside road to Red Lonning industrial estate.		
<b>Area</b>	0.19 ha		
<b>Distinctiveness</b>	Medium		
<b>Condition Table</b>	Grassland – medium, high & very high distinctiveness		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges	Marshy grassland with indicators such as marsh bird's-foot trefoil and tufted hair grass. Best fits g3c7 ( <i>Deschampsia</i> neutral grassland).	Pass

	and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward.		
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Yes, variation in sward height due to variation species.	Pass
	3. Cover of bare ground between 0 and 5%, including localised areas, for example, rabbit warrens.	0% bareground	Pass
	4. Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	0% bracken. 25% bramble scrub.	Fail
	5. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species 1 and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.	c. 20% cover of undesirables (creeping thistle and rosebay willowherb)	Fail
<b>Result</b>	<b>Moderate – Passes 3 out of 5 criteria.</b>  Passes 5 of 5 criteria -Good (3) <b>Passes 3 or 4 of 5 criteria - Moderate (2)</b> Passes 0, 1 or 2 of 5 criteria - Poor (1)		

Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, greater plantain *Plantago major*, white clover *Trifolium repens*, cow parsley *Anthriscus sylvestris*.

## Grassland – Other neutral grassland

**Table C5: Condition assessment of marshy grassland and swamp vegetation on southern boundary of site**

<b>Map reference</b>	TN12		
<b>Habitat</b>	Grassland – Other neutral grassland		
<b>Habitat Description</b>	Marshy grassland with swamp and scrub, off Caldbeck Road in the south of the site		
<b>Area</b>	0.14 ha		
<b>Distinctiveness</b>	Medium		
<b>Condition Table</b>	Grassland – medium, high & very high distinctiveness		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward.	g3c8 (Holcus-Juncus neutral grassland). Not a good example of the habitat.	Fail
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Sward is generally tall with few pockets of vegetation less than 7cm.	Fail
	3. Cover of bare ground between 0 and 5%, including localised areas, for example, rabbit warrens.	0% bare ground	Pass

	4. Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	0% bracken 10% scrub	Fail
	5. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species 1 and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.	No – Montbretia <i>Crocasmia x crocosmiiflora</i> present	Fail
Result	<b>Poor– Passes 1 out of 5 criteria.</b>  Passes 5 of 5 criteria -Good (3) Passes 3 or 4 of 5 criteria - Moderate (2) <b>Passes 0, 1 or 2 of 5 criteria - Poor (1)</b>		
Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , creeping buttercup <i>Ranunculus repens</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> , cow parsley <i>Anthriscus sylvestris</i> .			

## Grassland – Other neutral grassland

**Table C6: Condition assessment of semi-improved grassland between and alongside fenced poor-semi-improved fields**

<b>Map reference</b>	TN17, TN20, TN23		
<b>Habitat</b>	Grassland – Other neutral grassland		
<b>Habitat Description</b>	Fenced areas of 'semi-improved neutral grassland' between and alongside grazed fields and alongside Caldbeck Road. Used as a public footpaths.		
<b>Area</b>	0.64 ha		
<b>Distinctiveness</b>	Medium		
<b>Condition Table</b>	Grassland – medium, high & very high distinctiveness		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges	Semi-improved neutral grassland. Unmanaged area between two fenced fields. Best fit for g3c6/MG6 ( <i>Lolium-Cynosurus</i> neutral grassland).	Pass

	and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward.		
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	No generally uniform in height with few microclimates.	Fail
	3. Cover of bare ground between 0 and 5%, including localised areas, for example, rabbit warrens.	<5% in the form of public footpath	Pass
	4. Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	0% bracken. <5% bramble scrub.	Pass
	5. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species 1 and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.	c. 20% cover of undesirables (creeping thistle and creeping buttercup). <5% physical damage (public footpath)	Fail
<b>Result</b>	<b>Moderate – Passes 3 out of 5 criteria.</b>  Passes 5 of 5 criteria -Good (3) <b>Passes 3 or 4 of 5 criteria - Moderate (2)</b> Passes 0, 1 or 2 of 5 criteria - Poor (1)		

Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, greater plantain *Plantago major*, white clover *Trifolium repens*, cow parsley *Anthriscus sylvestris*.

## Grassland – Other neutral grassland

**Table C7: Condition assessment of marshy grassland north of houses on Chatsworth Drive**

<b>Map reference</b>	TN22 and 24		
<b>Habitat</b>	Grassland – Other neutral grassland		
<b>Habitat Description</b>	Area of 'marshy grassland' north of houses and gardens on Chatsworth Drive		
<b>Area</b>	0.45 ha		
<b>Distinctiveness</b>	Medium		
<b>Condition Table</b>	Grassland – medium, high & very high distinctiveness		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward.	Marshy grassland. Best fit for g3c8 (Holcus-Juncus neutral grassland).	Pass
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	No height is generally between 30cm and 2m.	Fail
	3. Cover of bare ground between 0 and 5%, including localised areas, for example, rabbit warrens.	0% bare ground	Pass
	4. Cover of bracken less than 20% and cover	0% bracken. 10% scrub.	Fail

	of scrub (including bramble) less than 5%.		
	5. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species 1 and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.	20% cover of undesirables (not listed on undesirables list but large area of dotted loosestrife (garden escape) present. Montbretia (invasive) also present.	Fail
Result	<b>Poor – Passes 2 out of 5 criteria.</b>  Passes 5 of 5 criteria -Good (3) Passes 3 or 4 of 5 criteria - Moderate (2) <b>Passes 0, 1 or 2 of 5 criteria - Poor (1)</b>		
Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , creeping buttercup <i>Ranunculus repens</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> , cow parsley <i>Anthriscus sylvestris</i> .			

## Grassland – Other neutral grassland

**Table C8: Condition assessment of unmanaged semi-improved neutral grassland in the north-east of the site**

<b>Map reference</b>	TN31		
<b>Habitat</b>	Grassland – Other neutral grassland		
<b>Habitat Description</b>	Area of 'semi-improved neutral grassland' in the north-east of the site.		
<b>Area</b>	0.62 ha		
<b>Distinctiveness</b>	Medium		
<b>Condition Table</b>	Grassland – medium, high & very high distinctiveness		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific	Semi-improved neutral grassland. Unmanaged. Closest fit to g3c5 ( <i>Arrhenatherum</i> neutral grassland).	Pass



	grassland habitat type are very clearly and easily visible throughout the sward.		
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	The sward height is tall and largely uniform.	Fail
	3. Cover of bare ground between 0 and 5%, including localised areas, for example, rabbit warrens.	0% bareground	Pass
	4. Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	0% bracken. 0% scrub.	Pass
	5. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species 1 and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.	20% creeping thistle	Fail
<b>Result</b>	Moderate – Passes 3 out of 5 criteria.  Passes 5 of 5 criteria -Good (3) <b>Passes 3 or 4 of 5 criteria - Moderate (2)</b> Passes 0, 1 or 2 of 5 criteria - Poor (1)		

Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, greater plantain *Plantago major*, white clover *Trifolium repens*, cow parsley *Anthriscus sylvestris*.

## Grassland – Other neutral grassland

**Table C9: Condition assessment of marshy grassland in the north of the site**

<b>Map reference</b>	TN32		
<b>Habitat</b>	Grassland – Other neutral grassland		
<b>Habitat Description</b>	Area of 'marshy grassland' in the north of the site		
<b>Area</b>	1.1 ha		
<b>Distinctiveness</b>	Medium		
<b>Condition Table</b>	Grassland – medium, high & very high distinctiveness		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward.	Tussocky marshy grassland: between g3c7 (Deschampsia neutral grassland) and g3c8 (Holcus-Juncus neutral grassland). Yorkshire fog and tufted hair-grass abundant and dominant soft rush.	Fail
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Some variation in sward height, but largely taller than 7cm	Fail
	3. Cover of bare ground between 0 and 5%, including localised areas, for example, rabbit warrens.	0% bare ground	Pass
	4. Cover of bracken less than 20% and cover	0% bracken. 0% scrub.	Pass



	of scrub (including bramble) less than 5%.		
	5. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species 1 and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.	<5% cover of undesirables	Pass
Result	<b>Moderate – Passes 3 out of 5 criteria.</b>  Passes 5 of 5 criteria -Good (3) <b>Passes 3 or 4 of 5 criteria - Moderate (2)</b> Passes 0, 1 or 2 of 5 criteria - Poor (1)		
Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , creeping buttercup <i>Ranunculus repens</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> , cow parsley <i>Anthriscus sylvestris</i> .			

## Grassland – Other neutral grassland

**Table C10: Condition assessment of semi-improved neutral grassland in the north-western part of the site**

<b>Map reference</b>	TN34 + TN35		
<b>Habitat</b>	Grassland – Other neutral grassland		
<b>Habitat Description</b>	Area of 'semi-improved neutral grassland' in the north-western part of the site, marshy grassland flush within grassland.		
<b>Area</b>	5.68 ha		
<b>Distinctiveness</b>	Medium		
<b>Condition Table</b>	Grassland – medium, high & very high distinctiveness		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific	Semi-improved neutral grassland. Unmanaged. G3c6 (Lolium – Cynosurus neutral grassland).	Pass

	grassland habitat type are very clearly and easily visible throughout the sward.		
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Sward uniform in height.	Fail
	3. Cover of bare ground between 0 and 5%, including localised areas, for example, rabbit warrens.	0% bare ground	Pass
	4. Cover of bracken less than 20% and cover of scrub (including bramble) less than 5%.	0% bracken. 0% scrub.	Pass
	5. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species 1 and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.	<5% cover of undesirables (white clover)	Pass
<b>Result</b>	<b>Moderate – Passes 4 out of 5 criteria.</b>  Passes 5 of 5 criteria -Good (3) <b>Passes 3 or 4 of 5 criteria - Moderate (2)</b> Passes 0, 1 or 2 of 5 criteria - Poor (1)		

Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, creeping buttercup *Ranunculus repens*, greater plantain *Plantago major*, white clover *Trifolium repens*, cow parsley *Anthriscus sylvestris*.

## Grassland – Other neutral grassland

**Table C11: Condition assessment of marshy grassland in western part of the site**

<b>Map reference</b>	TN36		
<b>Habitat</b>	Grassland – Other neutral grassland		
<b>Habitat Description</b>	Area of marshy grassland, with scattered scrub in the western part of the site		
<b>Area</b>	0.34 ha		
<b>Distinctiveness</b>	Medium		
<b>Condition Table</b>	Grassland – medium, high & very high distinctiveness		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. The appearance and composition of the vegetation closely matches characteristics of the specific grassland habitat type (see UKHab definition). Wildflowers, sedges and indicator species for the specific grassland habitat type are very clearly and easily visible throughout the sward.	Marshy grassland. Best fit for g3c8 (Holcus-Juncus neutral grassland).	Pass
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Sward is varied with microclimates present.	Pass
	3. Cover of bare ground between 0 and 5%, including localised areas, for example, rabbit warrens.	0% bare ground	Pass
	4. Cover of bracken less than 20% and cover	0% bracken. c.10% scrub.	Fail



	of scrub (including bramble) less than 5%.		
	5. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981). Combined cover of undesirable species 1 and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.	c.20% cover of undesirables (curled dock and creeping thistle)	Fail
Result	<b>Moderate – Passes 3 out of 5 criteria.</b>  Passes 5 of 5 criteria -Good (3) <b>Passes 3 or 4 of 5 criteria - Moderate (2)</b> Passes 0, 1 or 2 of 5 criteria - Poor (1)		
Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , creeping buttercup <i>Ranunculus repens</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> , cow parsley <i>Anthriscus sylvestris</i> .			

## Grassland – Modified Grassland

**Table C12: Condition assessment of marshy grassland present within poor semi-improved field in central part of site**

<b>Map reference</b>	TN8		
<b>Habitat</b>	Grassland – Modified grassland		
<b>Habitat Description</b>	Area of marshy grassland within poor semi-improved field.		
<b>Area</b>	0.25 ha		
<b>Distinctiveness</b>	Low		
<b>Condition Table</b>	Grassland – Low distinctiveness		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. There must be 6-8 species per m <sup>2</sup> . Note - if a grassland has 9 or more species per m <sup>2</sup> it should be classified as a moderate distinctiveness grassland habitat type. <b>NB - this criterion is non-negotiable for</b>	g3c8 (Holcus-Juncus neutral grassland). Average below the threshold of 6 species.	Fail

	<b>achieving good condition.</b>		
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Yes – variation between Juncus tussocks and grasses, due to grazing.	Pass
	3. Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	0% scrub.	Pass
	4. Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.	Evidence of mowing and grazing, but no poaching or excessive damage.	Pass
	5. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	0% bare ground	Pass
	6. Cover of bracken less than 20%.	0% bracken.	Pass
	7. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species <sup>1</sup> make up less than 5% of ground cover.	<1% cover of undesirables (creeping buttercup and common nettle)	Pass

<b>Result</b>	<b>Moderate</b> – Passes 6 out of 7 criteria.  Passes 6 or 7 of 7 criteria including non-negotiable criterion 7: Good (3) Passes 4 or 5 of 7 criteria; OR <b>Passes 6 of 7 criteria excluding non-negotiable criterion 7: Moderate (2)</b> Passes 0, 1, 2 or 3 of 7 criteria: Poor (1)
Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> , cow parsley <i>Anthriscus sylvestris</i> .	

## Grassland – Modified grassland

**Table C13: Condition assessment of modified ‘semi-improved’ grasslands around Caldbeck Road**

<b>Map reference</b>	TN9		
<b>Habitat</b>	Grassland – Modified grassland		
<b>Habitat Description</b>	Modified grasslands to the west, east and north of Caldbeck Road, used as agricultural grazing for horses and sheep.		
<b>Area</b>	1.75 ha		
<b>Distinctiveness</b>	Low		
<b>Condition Table</b>	Grassland – Low distinctiveness		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. There must be 6-8 species per m <sup>2</sup> . Note - if a grassland has 9 or more species per m <sup>2</sup> it should be classified as a moderate distinctiveness grassland habitat type. <b>NB - this criterion is non-negotiable for achieving good condition.</b>	Semi-improved grassland – standard pastoral grassland, much of which was in grazing. Average was four species: abundant meadow foxtail, perennial rye-grass, creeping buttercup and white clover.	Fail
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	No – uniformly grazed.	Fail
	3. Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland	0% bracken. 0% scrub cover.	Pass



	area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.		
	4. Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.	5% due to grazing	Fail
	5. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	5% bare ground, grazing and activity from horses causing bare areas	Fail
	6. Cover of bracken less than 20%.	0% bracken. 0% scrub cover.	Pass
	7. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species <sup>1</sup> make up less than 5% of ground cover.	10% cover of undesirable species: ryegrass and white clover.	Fail
Result	<b>Poor – Passes 2 out of 7 criteria.</b>  Passes 6 or 7 of 7 criteria including non-negotiable criterion 7: Good (3) Passes 4 or 5 of 7 criteria; OR Passes 6 of 7 criteria excluding non-negotiable criterion 7: Moderate (2) <b>Passes 0, 1, 2 or 3 of 7 criteria: Poor (1)</b>		
Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> , cow parsley <i>Anthriscus sylvestris</i> .			

## Grassland – Modified grassland

**Table C14: Condition assessment of grassland west of Caldbeck Road**

<b>Map reference</b>	TN11
<b>Habitat</b>	Grassland – Modified grassland
<b>Habitat Description</b>	'Semi-improved' grassland fields west of Caldbeck Road
<b>Area</b>	0.87ha
<b>Distinctiveness</b>	Low

Condition Table	Grassland – Low distinctiveness		
Condition Assessment	Assessment Criteria	Site Condition	Pass/Fail
	1. There must be 6-8 species per m <sup>2</sup> . Note - if a grassland has 9 or more species per m <sup>2</sup> it should be classified as a moderate distinctiveness grassland habitat type. <b>NB - this criterion is non-negotiable for achieving good condition.</b>	Improved grassland – standard pastoral grassland. Average was four species: abundant meadow foxtail, perennial rye-grass, creeping buttercup and white clover.	Fail
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Some areas were grazed and some were unmanaged, but the sward was generally a uniform height in both.	Fail
	3. Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	10% scrub in some places	Pass
	4. Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.	5% bare ground, grazing and activity from horses causing bare areas	Fail
	5. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	0 – 30%	Fail

	6. Cover of bracken less than 20%.	0% bracken.	Pass
	7. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species <sup>1</sup> make up less than 5% of ground cover.	c.30% cover of undesirables.	Fail
Result	<p><b>Poor</b> – Passes 2 out of 7 criteria.</p> <p>Passes 6 or 7 of 7 criteria including non-negotiable criterion 7: Good (3) Passes 4 or 5 of 7 criteria; OR Passes 6 of 7 criteria excluding non-negotiable criterion 7: Moderate (2) <b>Passes 0, 1, 2 or 3 of 7 criteria: Poor (1)</b></p>		
Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> , cow parsley <i>Anthriscus sylvestris</i> .			

## Grassland – Modified grassland

**Table C15: Condition assessment of grazed semi-improved grassland field east of Caldbeck Road**

<b>Map reference</b>	TN15		
<b>Habitat</b>	Grassland – Other neutral grassland		
<b>Habitat Description</b>	Large grazed 'semi-improved neutral grassland' field east of Caldbeck Road.		
<b>Area</b>	1.55 ha		
<b>Distinctiveness</b>	Low		
<b>Condition Table</b>	Grassland – Low distinctiveness		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. There must be 6-8 species per m <sup>2</sup> . Note - if a grassland has 9 or more species per m <sup>2</sup> it should be classified as a moderate distinctiveness grassland habitat type. <b>NB - this criterion is non-negotiable for achieving good condition.</b>	Semi-improved neutral grassland. Area grazed by horses. Marshy grassland component to sward. Best fit to g3c8 (Holcus-Juncus neutral grassland). Generally dominated by Yorkshire fog and creeping buttercup.	Fail
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates	Yes sward height varies across field, due to grazing.	Pass



	which provide opportunities for insects, birds and small mammals to live and breed.		
	3. Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	0% scrub	Pass
	4. Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.	Limited evidence of damaging activities, bar grazing.	Pass
	5. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	Bare ground between 1 – 5%	Pass
	6. Cover of bracken less than 20%.	0% bracken.	Pass
	7. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species <sup>1</sup> make up less than 5% of ground cover.	40% cover of undesirables (creeping buttercup & broadleaved dock).	Fail
	<b>Result</b>	<b>Moderate</b> – Passes 5 out of 7 criteria.  Passes 6 or 7 of 7 criteria including non-negotiable criterion 7: Good (3) <b>Passes 4 or 5 of 7 criteria; OR Passes 6 of 7 criteria excluding non-negotiable criterion 7: Moderate (2)</b> Passes 0, 1, 2 or 3 of 7 criteria: Poor (1)	
Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> , cow parsley <i>Anthriscus sylvestris</i> .			

## Grassland – Modified grassland

**Table C16: Condition assessment of disused football field**

<b>Map reference</b>	TN26		
<b>Habitat</b>	Grassland – Modified grassland		
<b>Habitat Description</b>	Disused football field adjacent to industrial estate. Poor semi-improved – lower distinctiveness grassland type.		
<b>Area</b>	0.75 ha		
<b>Distinctiveness</b>	Low		
<b>Condition Table</b>	Grassland – Low distinctiveness		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. There must be 6-8 species per m <sup>2</sup> . Note - if a grassland has 9 or more species per m <sup>2</sup> it should be classified as a moderate distinctiveness grassland habitat type. <b>NB - this criterion is non-negotiable for achieving good condition.</b>	Average number of species over 10 quadrats was 5 (4.7). The most frequent were creeping buttercup, Yorkshire fog and common bent.	Fail
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	6/10 quadrats passed this criteria, there were mammal runs and holes in the grass throughout the field.	Pass
	3. Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	No scrub in any quadrat.	Pass
	4. Physical damage evident in less than 5% of total grassland area, such as excessive	No damage evident.	Pass

	poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.		
	5. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	Localised bare ground in one quadrat from small mammal activity, below threshold levels.	Pass
	6. Cover of bracken less than 20%.	No bracken in any quadrat.	Pass
	7. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species <sup>1</sup> make up less than 5% of ground cover.	No non-native species present. The volume of undesirable species was limited – curled dock was present in one quadrat but was below threshold levels.	Pass
<b>Result</b>	<b>Moderate – Passes 6 out of 7 criteria.</b>  Passes 6 or 7 of 7 criteria including non-negotiable criterion 7: Good (3) Passes 4 or 5 of 7 criteria; OR <b>Passes 6 of 7 criteria excluding non-negotiable criterion 7: Moderate (2)</b> Passes 0, 1, 2 or 3 of 7 criteria: Poor (1)		
Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> , cow parsley <i>Anthriscus sylvestris</i> .			

## Grassland – Modified Grassland

**Table C17: Condition assessment of marshy grassland present within poor semi-improved field in central part of site**

<b>Map reference</b>	TN29		
<b>Habitat</b>	Grassland – Modified grassland		
<b>Habitat Description</b>	Marshy grassland within fenced area of northern field		
<b>Area</b>	0.08 ha		
<b>Distinctiveness</b>	Low		
<b>Condition Table</b>	Grassland – Low distinctiveness		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. There must be 6-8 species per m <sup>2</sup> . Note - if a grassland has 9 or more species per m <sup>2</sup> it should be classified as a moderate distinctiveness	g3c8 (Holcus-Juncus neutral grassland). Average below the threshold of 6 species.	Fail



	grassland habitat type. <b>NB - this criterion is non-negotiable for achieving good condition.</b>		
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Variation is present but vegetation is all taller than 7cm.	Fail
	3. Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	0% scrub.	Pass
	4. Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.	Evidence of mowing and grazing, but no poaching or excessive damage.	Pass
	5. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	0% bare ground	Pass
	6. Cover of bracken less than 20%.	0% bracken.	Pass
	7. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species <sup>1</sup> make up less	No INNS and no undesirable species	Pass

	than 5% of ground cover.		
Result	<b>Moderate</b> – Passes 5 out of 7 criteria.		
	Passes 6 or 7 of 7 criteria including non-negotiable criterion 7: Good (3) Passes 4 or 5 of 7 criteria; OR <b>Passes 6 of 7 criteria excluding non-negotiable criterion 7: Moderate (2)</b>		
	Passes 0, 1, 2 or 3 of 7 criteria: Poor (1)		
Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> , cow parsley <i>Anthriscus sylvestris</i> .			

## Grassland – Modified Grassland

**Table C18: Condition assessment of 'Poor semi-improved neutral' grassland in the northern part of the site.**

<b>Map reference</b>	TN33		
<b>Habitat</b>	Grassland – Modified grassland		
<b>Habitat Description</b>	'Poor semi-improved neutral' grassland in the northern part of the site.		
<b>Area</b>	2.88 ha		
<b>Distinctiveness</b>	Low		
<b>Condition Table</b>	Grassland – Low distinctiveness		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. There must be 6-8 species per m <sup>2</sup> . Note - if a grassland has 9 or more species per m <sup>2</sup> it should be classified as a moderate distinctiveness grassland habitat type. <b>NB - this criterion is non-negotiable for achieving good condition.</b>	Poor semi-improved neutral grassland. Species present included; perennial rye-grass, annual meadow grass, meadow foxtail, creeping buttercup, white clover, Yorkshire fog. Average 5 species.	Fail
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Largely uniform and taller than 7cm.	Fail
	3. Some scattered scrub (including bramble) may be present, but scrub accounts for less than	0% scrub.	Pass

	20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.		
	4. Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.	Limited physical damage.	Pass
	5. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	<5%	Pass
	6. Cover of bracken less than 20%.	0% bracken.	Pass
	7. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species <sup>1</sup> make up less than 5% of ground cover.	5% cover of white clover.	Fail
Result	Moderate – Passes 4 out of 7 criteria.  Passes 6 or 7 of 7 criteria including non-negotiable criterion 7: Good (3) <b>Passes 4 or 5 of 7 criteria; OR Passes 6 of 7 criteria excluding non-negotiable criterion 7: Moderate (2)</b> Passes 0, 1, 2 or 3 of 7 criteria: Poor (1)		
Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> , cow parsley <i>Anthriscus sylvestris</i> .			

## Grassland – Modified Grassland

**Table C19: Condition assessment of 'Poor semi-improved neutral' east of Caldbeck Road.**

<b>Map reference</b>	TN37
<b>Habitat</b>	Grassland – Modified grassland
<b>Habitat Description</b>	'Poor semi-improved neutral' grassland east of Caldbeck Road.
<b>Area</b>	0.80 ha



<b>Distinctiveness</b>	Low		
<b>Condition Table</b>	Grassland – Low distinctiveness		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. There must be 6-8 species per m <sup>2</sup> . Note - if a grassland has 9 or more species per m <sup>2</sup> it should be classified as a moderate distinctiveness grassland habitat type. <b>NB - this criterion is non-negotiable for achieving good condition.</b>	Poor semi-improved neutral grassland. Species present included; meadow foxtail, creeping bent, creeping thistle and white clover. Average 4 species.	Fail
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.	Some structural diversity due to grazing.	Pass
	3. Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	0% scrub.	Pass
	4. Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.	Poaching and bare ground evident.	Fail
	5. Cover of bare ground between 1% and 5%, including localised	5%	Fail

	areas, for example, rabbit warrens.		
	6. Cover of bracken less than 20%.	0% bracken.	Pass
	7. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species <sup>1</sup> make up less than 5% of ground cover.	10% cover of white clover and creeping thistle.	Fail
<b>Result</b>	<b>Moderate – Passes 3 out of 7 criteria.</b>  Passes 6 or 7 of 7 criteria including non-negotiable criterion 7: Good (3) Passes 4 or 5 of 7 criteria; OR Passes 6 of 7 criteria excluding non-negotiable criterion 7: Moderate (2) <b>Passes 0, 1, 2 or 3 of 7 criteria: Poor (1)</b>		
Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle <i>Cirsium arvense</i> , spear thistle <i>Cirsium vulgare</i> , curled dock <i>Rumex crispus</i> , broad-leaved dock <i>Rumex obtusifolius</i> , common nettle <i>Urtica dioica</i> , greater plantain <i>Plantago major</i> , white clover <i>Trifolium repens</i> , cow parsley <i>Anthriscus sylvestris</i> .			

## Grassland – Modified grassland

**Table C20: Condition assessment of margin of disused football field adjacent to industrial estate.**

<b>Map reference</b>	TN39		
<b>Habitat</b>	Grassland – Modified grassland		
<b>Habitat Description</b>	Margin of disused football field adjacent to industrial estate.		
<b>Area</b>	1.09 ha		
<b>Distinctiveness</b>	Low		
<b>Condition Table</b>	Grassland – Low distinctiveness		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. There must be 6-8 species per m <sup>2</sup> . Note - if a grassland has 9 or more species per m <sup>2</sup> it should be classified as a moderate distinctiveness grassland habitat type. <b>NB - this criterion is non-negotiable for achieving good condition.</b>	6-8 species present: including creeping buttercup and Yorkshire fog constant. Common spotted-orchid present.	Pass
	2. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20 per cent	Yes – microclimates present.	Pass

	is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed.		
	3. Some scattered scrub (including bramble) may be present, but scrub accounts for less than 20% of total grassland area. Note - patches of shrubs with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	No scrub evident.	Pass
	4. Physical damage evident in less than 5% of total grassland area, such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities.	No physical damage.	Pass
	5. Cover of bare ground between 1% and 5%, including localised areas, for example, rabbit warrens.	Limited bare ground.	Pass
	6. Cover of bracken less than 20%.	0% bracken	Pass
	7. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species <sup>1</sup> make up less than 5% of ground cover.	No INNS and no undesirable species.	Pass
	<b>Result</b> <b>Good – Passes 7 out of 7 criteria.</b>  <b>Passes 6 or 7 of 7 criteria including non-negotiable criterion 7: Good (3)</b> Passes 4 or 5 of 7 criteria; OR Passes 6 of 7 criteria excluding non-negotiable criterion 7: Moderate (2) Passes 0, 1, 2 or 3 of 7 criteria: Poor (1)		



Footnote 1 - Species considered undesirable for this habitat type include: Creeping thistle *Cirsium arvense*, spear thistle *Cirsium vulgare*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, common nettle *Urtica dioica*, greater plantain *Plantago major*, white clover *Trifolium repens*, cow parsley *Anthriscus sylvestris*.

## Heathland and shrub – Bramble scrub

**Table C21: Condition assessment of bramble scrub on the edge of the disused football field**

<b>Map Reference(s)</b>	TN 10
<b>Habitat</b>	Heathland and shrub – Bramble scrub
<b>Habitat Description</b>	Area of low-growing bramble scrub on the edge of the disused football field.
<b>Area</b>	0.06 ha
<b>Distinctiveness</b>	Medium
<b>Condition Table</b>	N/A
<b>Condition Assessment</b>	Poor
<b>Result</b>	<b>Poor</b> – default score allocated of 1

## Heathland and shrub – Bramble scrub

**Table C22: Condition assessment of dense scrub at the northern end of Caldbeck Road**

<b>Map Reference(s)</b>	TN 19
<b>Habitat</b>	Heathland and shrub – Bramble scrub
<b>Habitat Description</b>	Area of dense scrub north of Caldbeck Road.
<b>Area</b>	0.04 ha
<b>Distinctiveness</b>	Medium
<b>Condition Table</b>	N/A
<b>Condition Assessment</b>	Poor
<b>Result</b>	<b>Poor</b> – default score allocated of 1

## Heathland and shrub – Bramble scrub

**Table C23: Condition assessment of bramble scrub west of houses on Winchester Drive**

<b>Map Reference(s)</b>	TN 25
<b>Habitat</b>	Heathland and Shrub – bramble scrub
<b>Habitat Description</b>	Area of low-growing bramble scrub west of Winchester Drive
<b>Area</b>	0.03 ha
<b>Distinctiveness</b>	Medium
<b>Condition Table</b>	N/A
<b>Condition Assessment</b>	Poor

<b>Result</b>	<b>Poor</b> – default score allocated of 1
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## Heathland and shrub – Mixed scrub

**Table C24: Condition assessment of dense scrub east of Caldbeck Road**

<b>Map reference</b>	TN 21		
<b>Habitat</b>	Heathland and shrub – Mixed scrub		
<b>Habitat Description</b>	Area of dense scrub east of Caldbeck Road.		
<b>Area</b>	0.14 ha		
<b>Distinctiveness</b>	Medium		
<b>Condition Table</b>	Scrub		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	1. Habitat is representative of UKHab description (where in its natural range). There are at least three woody species, with no one species comprising more than 75% of the cover (except common juniper, sea buckthorn or box, which can be up to 100% cover).	Ten species present including; blackthorn, bramble, hawthorn, hazel, rowan, wild cherry, goat willow, elder, whitebeam and pine. Maximum dominance was c.50% by blackthorn.	Pass
	2. There is a good age range – all of the following are present: seedlings, young shrubs and mature shrubs.	Mixed ages.	Pass
	3. There is an absence of invasive non-native species (as listed on Schedule 9 of WCA, 1981) and undesirable species <sup>1</sup> make up less than 5% of ground cover.	No INNS. <5% Present on some edges (common nettle).	Pass
	4. The scrub has a well-developed edge with scattered scrub and tall grassland and/or herbs present between the scrub and adjacent habitat(s).	Yes, tall herbs present.	Pass
	5. There are clearings, glades or rides present within the scrub,	Scrub is dense without clearings.	Fail

	providing sheltered edges.		
Result	<b>Moderate</b> – Passes 4 out of 5 criteria.		
	(Passes 5 of 5 criteria: Good (3)) <b>Passes 3 or 4 of 5 criteria: Moderate (2)</b> Passes 0, 1 or 2 of 5 criteria: Poor (1))		
Footnote 1 - Species considered undesirable for this habitat type include: creeping thistle <i>Cirsium arvense</i> , common nettle <i>Urtica dioica</i> , cherry laurel <i>Prunus laurocerasus</i> , snowberry <i>Symphoricarpos spp.</i> , buddleia <i>Buddleja spp.</i> , cotoneaster <i>Cotoneaster spp.</i> , Spanish bluebell <i>Hyacinthoides hispanica</i> (or hybrids).			

## Grassland - Bracken

**Table C25: Condition assessment of continuous bracken west of Caldbeck road.**

<b>Map Reference(s)</b>	TN14
<b>Habitat</b>	Grassland - Bracken
<b>Habitat Description</b>	Area of continuous bracken in ditch west of Caldbeck Road.
<b>Area</b>	0.08 ha
<b>Distinctiveness</b>	Low
<b>Condition Table</b>	N/A
<b>Condition Assessment</b>	Poor
<b>Result</b>	<b>Poor</b> – default score allocated of 1

## Sparsely vegetated land – Ruderal/Ephemeral

**Table C26: Condition assessment of ruderal vegetation on the edge of disused football field**

<b>Map reference</b>	TN27		
<b>Habitat</b>	Sparsely vegetated land – Ruderal/Ephemeral		
<b>Habitat Description</b>	Tall ruderal vegetation with scattered alder scrub within disused football field.		
<b>Area</b>	0.24ha		
<b>Distinctiveness</b>	Low		
<b>Condition Table</b>	Urban – non priority		
<b>Condition Assessment</b>	Assessment Criteria	Site Condition	Pass/Fail
	1. Vegetation structure is varied, providing opportunities for insects, birds and bats to live and breed. A single ecotone (i.e. scrub, grassland, herbs) should not account for more than	Not varied, over 80% of the area is covered is tall ruderal vegetation.	Fail

	80% of the total habitat area.		
	2. There is a diverse range of flowering plant species, providing nectar sources for insects. These species may be either native, or non-native but beneficial to wildlife. NB - To achieve GOOD condition, criterion 2 must be satisfied by native species only (rather than non-natives beneficial to wildlife).	Dominated by hogweed with abundant creeping thistle, broadleaved dock, false-oat grass and Yorkshire fog. Possibly a version of g3c5 ( <i>Arrhenatherum</i> neutral grassland).	Pass
	3. Invasive non-native species (Schedule 9 of WCA) cover less than 5% of total vegetated area. NB - To achieve GOOD condition, criterion 3 must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	No non-native species. c. 50% broad-laved dock and creeping thistle.	Fail
<b>Result</b>	<p>Passes 3 of 3 core criteria; AND • Meets the requirements for good condition within criteria 2 and 3: Good (3)</p> <p>Passes 2 of 3 core criteria; OR Passes 3 of 3 core criteria but does not meet the requirements for good condition within criteria 2 and 3: Moderate (2)</p> <p><b>Passes 0 or 1 of 3 core criteria: Poor (1)</b></p>		

### Sparsely vegetated land – Ruderal/Ephemeral

**Table C27: Condition assessment of tall ruderal vegetation in northern field**

<b>Map reference</b>	TN 30		
<b>Habitat</b>	Sparsely vegetated land – Ruderal/Ephemeral		
<b>Habitat Description</b>	Ruderal vegetation within northern field		
<b>Area</b>	0.39 ha		
<b>Distinctiveness</b>	Low		
<b>Condition Table</b>	Urban – non priority		
	Assessment Criteria	Site Condition	Pass/Fail



<b>Condition Assessment</b>	1. Vegetation structure is varied, providing opportunities for insects, birds and bats to live and breed. A single ecotone (i.e. scrub, grassland, herbs) should not account for more than 80% of the total habitat area.	The vegetation is largely uniform and comprises a single ecotone.	Fail
	2. There is a diverse range of flowering plant species, providing nectar sources for insects. These species may be either native, or non-native but beneficial to wildlife. NB - To achieve GOOD condition, criterion 2 must be satisfied by native species only (rather than non-natives beneficial to wildlife).	Area within poor semi-improved field dominated by creeping thistle and is not diverse.	Fail
	3. Invasive non-native species (Schedule 9 of WCA) cover less than 5% of total vegetated area. NB - To achieve GOOD condition, criterion 3 must be satisfied by a complete absence of invasive non-native species (rather than <5% cover).	No non-native species. c. 80% creeping thistle	Fail
<b>Result</b>	<p>Passes 3 of 3 core criteria; AND • Meets the requirements for good condition within criteria 2 and 3: Good (3)</p> <p>Passes 2 of 3 core criteria; OR Passes 3 of 3 core criteria but does not meet the requirements for good condition within criteria 2 and 3: Moderate (2)</p> <p><b>Passes 0 or 1 of 3 core criteria: Poor (1)</b></p>		

**Table C28: Condition assessment of urban trees on western edge of modified grassland**

<b>Map reference</b>	Green circle within TN15
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<b>Habitat</b>	Urban – Urban tree		
<b>Habitat Description</b>	Alder trees on western edge of modified grassland		
<b>Area</b>	0.02 ha (5 trees)		
<b>Distinctiveness</b>	Medium		
<b>Condition Table</b>	Line of trees		
<b>Condition Assessment</b>	Assessment Criteria	Site Condition	Pass/Fail
	1. More than 70% of trees are native species.	Yes – all trees native alder.	Pass
	2. 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 – trees are relatively close together with no large gaps.	Pass
	3. Includes one or more mature <sup>12</sup> or veteran tree <sup>13</sup> .	No – all immature	Fail
	4. 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 anthropogenic operations.	No, there is an undisturbed margin of 1m from the public footpath and trees are within grazed field with no buffer.	Fail
	5. At least 95% of the 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	Yes, in good condition with no evidence of damage.	Pass

<sup>12</sup> A mature tree in this context is one that is at least 2/3 expected fully mature height for the species.

<sup>13</sup> All ancient trees are veteran trees, but not all veteran trees are ancient. A veteran tree may not be very old, but it has decay features, such as branch death and hollowing. These features contribute to its biodiversity, cultural and heritage value. Veteran trees can be classified if they have four out of the five following features:

1. Rot sites associated with wounds which are decaying >400 cm<sup>2</sup>;
2. Holes and water pockets in the trunk and mature crown >5 cm diameter;
3. Dead branches or stems >15 cm diameter;
4. Any hollowing in the trunk or major limbs;
5. Fruit bodies of fungi known to cause wood decay.

	livestock or wild animals, pests or diseases, or human activity.		
<b>Result</b>	Passes 5 of 5 criteria: Good (3) <b>Passes 3 or 4 of 5 criteria: Moderate (2)</b> Passes 0, 1 or 2 of 5 criteria: Poor (1)		

**Table C29: A-1 Site Habitat Baseline for Non-Linear Habitats**

Ref	Habitats and areas			Habitat distinctiveness		Habitat condition		Strategic significance		
	Broad Habitat	Habitat type	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier
1	Woodland and forest	Woodland and forest – Other woodland; broadleaved	2.94	Medium	4	Moderate	2	Location ecologically desirable but not in local strategy	Medium Strategic Significance	1.1
2	Urban	Urban – Developed land; sealed surface	0.41	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
3	Grassland	Grassland - Other neutral grassland	8.77	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
4	Grassland	Grassland - Other neutral grassland	0.6	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
5	Grassland	Grassland - Modified grassland	0.34	Low	2	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
6	Grassland	Grassland - Modified grassland	5.4	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
7	Grassland	Grassland - Modified grassland	3.43	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
8	Heathland and shrub	Heathland and shrub - Bramble scrub	0.11	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
9	Heathland and shrub	Heathland and shrub - Mixed scrub	0.14	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
10	Heathland and shrub	Heathland and shrub - Mixed scrub	0.03	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
11	Grassland	Grassland - Bracken	0.09	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
12	Sparsely vegetated land	Sparsely vegetated land – Ruderal/Ephemeral	0.63	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
13	Urban	Urban – Urban Tree	0.02	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
<b>Total site area ha</b>			<b>22.91</b>							



**Table C29: A-1 Site Habitat Baseline for Non-Linear Habitats (Continued)**

Ref	Suggested action to address habitat losses	Ecological baseline	Retention category biodiversity value					
		Total habitat units	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area lost	Units lost
1	Same broad habitat or a higher distinctiveness habitat required	25.87	0	2.58	0.00	22.70	0.36	3.17
2	Compensation not required	0.00	0.33	0.00	0.00	0.00	0.08	0.00
3	Same broad habitat or a higher distinctiveness habitat required	70.16	2.12	0.00	16.96	0.00	6.65	53.20
4	Same broad habitat or a higher distinctiveness habitat required	2.40	0.28	0.00	1.12	0.00	0.32	1.28
5	Same distinctiveness or better habitat required	2.04	0	0.00	0.00	0.00	0.34	2.04
6	Same distinctiveness or better habitat required	21.60	0	0.00	0.00	0.00	5.40	21.60
7	Same distinctiveness or better habitat required	6.86	0	0.00	0.00	0.00	3.43	6.86
8	Same broad habitat or a higher distinctiveness habitat required	0.44	0	0.00	0.00	0.00	0.11	0.44
9	Same broad habitat or a higher distinctiveness habitat required	1.12	0	0.00	0.00	0.00	0.14	1.12
10	Same broad habitat or a higher distinctiveness habitat required	0.12	0	0.00	0.00	0.00	0.03	0.12
11	Same distinctiveness or better habitat required	0.18	0	0.00	0.00	0.00	0.09	0.18
12	Same distinctiveness or better habitat required	1.26	0	0.00	0.00	0.00	0.63	1.26
13	Same broad habitat or a higher distinctiveness habitat required	0.16	0	0.00	0.00	0.00	0.02	0.16
<b>Total Site Baseline</b>		<b>132.21</b>	<b>2.51</b>	<b>2.58</b>	<b>16.32</b>	<b>22.70</b>	<b>17.82</b>	<b>93.19</b>

**Table C30: A-2 Site Habitat Creation for Non-Linear Habitats**

Ref	Habitats and areas			Habitat distinctiveness		Habitat condition		Strategic significance			Temporal multiplier		
	Broad Habitat	Habitat type	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier	Standard time to target condition/years	Habitat created in advance/years	Delay in starting habitat creation/years
1	Woodland and forest	Woodland and forest – Other woodland; broadleaved	0.71	Medium	4	Moderate	2	Location ecologically desirable but not in local strategy	Medium Strategic Significance	1.1	15	0	0
2	Urban	Urban – Developed land; sealed surface	8.53	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0	0	0
3	Heathland and shrub	Heathland and shrub – Mixed Scrub	0.33	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5	0	0
4	Grassland	Grassland - Modified grassland	1.44	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	4	0	0
5	Urban	artificial unvegetated, unsealed surface	0.31	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0	0	0
6	Urban	Sustainable urban drainage feature	0.12	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	3	0	0
7	Urban	Urban tree	0.12	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	27	0	0
8	Urban	Vegetated garden	5.68	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0	0
9	Grassland	Grassland – Other neutral	0.46	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5	0	0
Total site area ha			17.92										

**Table C30: A-2 Site Habitat Creation for Non-Linear Habitats (Continued)**

Ref	Temporal multiplier							Habitat units delivered
	Standard or adjusted time to target condition	Final time to target condition/years	Final time to target multiplier	Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation	Difficulty multiplier applied	
1	Standard time to target condition applied	15	0.586	Low	Standard difficulty applied	Low	1	3.66
2	Standard time to target condition applied	0	1.000	Low	Standard difficulty applied	Medium	0.67	0.00
3	Standard time to target condition applied	5	0.837	Low	Standard difficulty applied	Low	1	2.21
4	Standard time to target condition applied	4	0.867	Low	Standard difficulty applied	Low	1	4.99
5	Standard time to target condition applied	0	1.000	Low	Standard difficulty applied	Low	1	0.00
6	Standard time to target condition applied	3	0.899	Medium	Standard difficulty applied	Medium	0.67	0.29
7	Standard time to target condition applied	27	0.382	Low	Standard difficulty applied	Low	1	0.37
8	Standard time to target condition applied	1	0.965	Low	Standard difficulty applied	Low	1	10.96
9	Standard time to target condition applied	5	0.837	Low	Standard difficulty applied	Low	1	3.08
<b>Total Site Creation</b>								<b>26.33</b>

**Table C31: A-3 Site Habitat Enhancement for Non-Linear Habitats**

Ref	Baseline Habitats										Post development/post intervention habitats	
											Proposed habitat	
	Baseline Habitat	Total Habitat Area	Baseline Distinctiveness Band	Baseline Distinctiveness Score	Baseline Condition category	Baseline condition Score	Baseline Strategic significance Category	Baseline Strategic significance score	Baseline Habitat units	Suggested action to address habitat losses	Proposed broad habitat	Proposed habitat
1	Woodland and forest – Other woodland; broadleaved	2.94	Medium	4	Moderate	2	Medium Strategic Significance	1.1	25.87	Same broad habitat or a higher distinctiveness habitat required	Woodland and forest	Other woodland; Broadleaved

**Table C31: A-3 Site Habitat Enhancement for Non-Linear Habitats (Continued)**

Post development/post intervention habitats															
Change in distinctiveness and condition		Area (Hectares)	Distinctiveness	Score	Condition	Score	Strategic significance			Temporal risk multiplier					
Distinctiveness change	Condition change						Strategic significance	Strategic significance	Strategic position multiplier	Standard time to target condition/ years	Habitat enhanced in advance/ years	Delay in starting habitat enhancement/ years	Standard or adjusted time to target condition	Final time to target condition/ years	Final time to target multiplier
Medium - Medium	Moderate - Good	2.58	Medium	4	Good	3	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	10	0	0	Standard time to target condition applied	10	0.700

**Table C31: A-3 Site Habitat Enhancement for Non-Linear Habitats (Continued)**

Post development/post intervention habitats				Habitat units delivered
Difficulty risk multipliers				
Standard difficulty of enhancement	Applied difficulty multiplier	Final difficulty of enhancement	Difficulty multiplier applied	
Low	Standard difficulty applied	Low	1	30.65



## APPENDIX D: B-1 SITE HEDGEROW BASELINE

### Native Hedgerow

**Table D1: Condition assessment for 'defunct species poor hedgerow'**

<b>Hedgerow number</b>	TN1		
<b>UKHab Habitat Type</b>	Native Hedgerow		
<b>Length</b>	0.096 km		
<b>Distinctiveness</b>	Low		
<b>Condition assessment sheet used</b>	Hedgerows		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	A1. Height >1.5 m average along length.	c. 2m.	Pass
	A2. Width >1.5 m average along length.	c. 1.5m.	Pass
	B1. Gap between ground and base of canopy <0.5 m for >90% of length (unless 'line of trees').	Base gap 50cm for 50 – 75% of length	Fail
	B2. Gaps make up <10% of total length <b>and</b> no canopy gaps >5 m.	<10% gaps. No canopy gaps.	Pass
	C1. >1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length is present on one side of the hedge (at least).	>1m width undisturbed ground for 100% of length. Hedgerow is undisturbed.	Pass
	C2. Plants indicative of nutrient enrichment or soils dominate <20% cover of the area of undisturbed ground.	<5% of species indicative of disturbance/high fertility.	Pass
	D1. >90% of the hedgerow and undisturbed ground is free of invasive and neophyte species.	None observed.	Pass
	D2. >90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	None observed.	Pass
<b>Result</b>	<b>Good</b> – 0-2 failures in total <b>and</b> no more than 1 fail in any functional group (A, B, C or D).		

### Native Hedgerow

**Table D2: Condition assessment for defunct hedgerow within broad-leaved plantation woodland**

<b>Hedgerow number</b>	TN2
<b>UKHab Habitat Type</b>	Native Hedgerow
<b>Length</b>	0.067 km
<b>Distinctiveness</b>	Low

<b>Condition assessment sheet used</b>	Hedgerows		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	A1. Height >1.5 m average along length.	c. 1.5m.	Pass
	A2. Width >1.5 m average along length.	c. 2m.	Pass
	B1. Gap between ground and base of canopy <0.5 m for >90% of length (unless 'line of trees').	Base gap 50-70 cm for c. 75% length.	Fail
	B2. Gaps make up <10% of total length <b>and</b> no canopy gaps >5 m.	Gaps 15-20%	Fail
	C1. >1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length is present on one side of the hedge (at least).	>1m width undisturbed ground for 100% of length. Hedgerow is undisturbed.	Pass
	C2. Plants indicative of nutrient enrichment or soils dominate <20% cover of the area of undisturbed ground.	None observed.	Pass
	D1. >90% of the hedgerow and undisturbed ground is free of invasive and neophyte species.	None observed.	Pass
	D2. >90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	Evidence of fly tipping.	Fail
<b>Result</b>	<b>Moderate</b> – 2-4 failures in total and fails both attributes in any one functional group.		

## Native Hedgerow

**Table D3: Condition assessment for Native Hedgerow in the south of site**

<b>Hedgerow number</b>	TN3		
<b>UKHab Habitat Type</b>	Native Hedgerow		
<b>Length</b>	0.03 km		
<b>Distinctiveness</b>	Low		
<b>Condition assessment sheet used</b>	Hedgerows		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	A1. Height >1.5 m average along length.	c. 5m.	Pass
	A2. Width >1.5 m average along length.	c. 4m.	Pass
	B1. Gap between ground and base of canopy <0.5 m for >90% of length (unless 'line of trees').	Base gap 1m for c. 90% length.	Fail
	B2. Gaps make up <10% of total length <b>and</b> no canopy gaps >5 m.	<5% gaps.	Pass
	C1. >1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length is present on one side of the hedge (at least).	c.2m width undisturbed ground for 100% of length. Hedgerow is undisturbed.	Pass

	C2. Plants indicative of nutrient enrichment or soils dominate <20% cover of the area of undisturbed ground.	50% cover (common nettle, hogweed, cleavers and broad-leaved dock).	Fail
	D1. >90% of the hedgerow and undisturbed ground is free of invasive and neophyte species.	Himalayan balsam present	Fail
	D2. >90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	None observed.	Pass
<b>Result</b>	<b>Moderate</b> – 2-4 failures in total and fails both attributes in any one functional group.		

## Native Species Rich Hedgerow

**Table D4: Condition assessment for Native Hedgerow in the south of site**

<b>Hedgerow number</b>	Newly recreated hedgerows: TN4, TN5 and TN6		
<b>UKHab Habitat Type</b>	Native Species Rich Hedgerow		
<b>Length</b>	0.11 km, 0.06 km and 0.04 km		
<b>Distinctiveness</b>	Medium		
<b>Condition assessment sheet used</b>	Hedgerows		
<b>Condition Assessment</b>	<b>Assessment Criteria</b>	<b>Site Condition</b>	<b>Pass/Fail</b>
	A1. Height >1.5 m average along length.	>1.5m	Pass
	A2. Width >1.5 m average along length.	May be less than 1.5m until established	Fail
	B1. Gap between ground and base of canopy <0.5 m for >90% of length (unless 'line of trees').	Base gap <0.5m	Pass
	B2. Gaps make up <10% of total length <b>and</b> no canopy gaps >5 m.	<5% gaps.	Pass
	C1. >1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length is present on one side of the hedge (at least).	c.2m width undisturbed ground for 100% of length.	Pass
	C2. Plants indicative of nutrient enrichment or soils dominate <20% cover of the area of undisturbed ground.	Leave undisturbed 2m margin at hedgerow base. May not be possible for H4.	Fail
	D1. >90% of the hedgerow and undisturbed ground is free of invasive and neophyte species.	No INNS	Pass
	D2. >90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	None observed.	Pass
<b>Result</b>	<b>Moderate</b> – 2-4 failures in total and fails both attributes in any one functional group.		

**Table D4: B-1 Site Hedgerow Baseline Condition**

UK habitats – existing habitats			Habitat distinctiveness		Habitat condition		Strategic significance				Ecological baseline	Retention category biodiversity value					
Hedge number	Hedgerow type	Length KM	Distinctiveness	Score	Condition	Score											
							Strategic significance	Strategic significance	Strategic position multiplier	Suggested action to address habitat losses	Total hedgerow units	Length retained	Length enhanced	Units retained	Units enhanced	Length lost	Units lost
1	Native Hedgerow	0.096	Low	2	Good	3	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Same distinctiveness band or better	0.63	0.096	0.00	0.63	0	0	0
2	Native Hedgerow	0.067	Low	2	Moderate	2	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Same distinctiveness band or better	0.29	0	0.00	0	0	0.07	0.29
3	Native Hedgerow	0.03	Low	2	Moderate	2	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	Same distinctiveness band or better	0.13	0.03	0.00	0.132	0	0	0
	Total Site length / KM	0.193	Total Site baseline								1.06	0.12	0.00	0.77	0.00	0.07	0.29

**Table D5: B-2 Site Hedgerow Creation**

UK habitats – existing habitats			Habitat distinctiveness		Habitat condition		Strategic significance			Temporal multiplier		
Hedge number	Hedgerow type	Length KM	Distinctiveness	Score	Condition	Score						
							Strategic significance	Strategic significance	Strategic position multiplier	Standard time to target condition/years	Habitat created in advance/ years	Delay in starting habitat creation/years
4	Native species rich Hedgerow	0.11	Medium	4	Moderate	2	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	5	0	0
5	Native species rich Hedgerow	0.06	Medium	4	Moderate	2	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	5	0	0
6	Native species rich Hedgerow	0.04	Medium	4	Moderate	2	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	5	0	0
	<b>Total Site length / KM</b>	<b>0.21</b>										



Table D5: B-2 Site Hedgerow Creation (Continued)

Hedge number	Temporal multiplier							Hedge units delivered
	Standard or adjusted time to target condition	Final time to target condition/years	Final time to target multiplier	Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation	Difficulty multiplier applied	
4	Standard time to target condition applied	5	0.837	Low	Standard difficulty applied	Low	1	0.81
5	Standard time to target condition applied	5	0.837	Low	Standard difficulty applied	Low	1	0.44
6	Standard time to target condition applied	5	0.837	Low	Standard difficulty applied	Low	1	0.29
Total Site Creation								1.54

## APPENDIX E: A-1 SITE HABITAT BASELINE FOR RECOMMEDATIONS

Table E1: A-1 Site Habitat Baseline for Non-Linear Habitats

Ref	Habitats and areas			Habitat distinctiveness		Habitat condition		Strategic significance		
	Broad Habitat	Habitat type	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier
1	Woodland and forest	Woodland and forest – Other woodland; broadleaved	2.94	Medium	4	Moderate	2	Location ecologically desirable but not in local strategy	Medium Strategic Significance	1.1
2	Urban	Urban – Developed land; sealed surface	0.41	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
3	Grassland	Grassland - Other neutral grassland	8.77	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
4	Grassland	Grassland - Other neutral grassland	0.6	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
5	Grassland	Grassland - Modified grassland	0.34	Low	2	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
6	Grassland	Grassland - Modified grassland	5.4	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
7	Grassland	Grassland - Modified grassland	3.43	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
8	Heathland and shrub	Heathland and shrub - Bramble scrub	0.11	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
9	Heathland and shrub	Heathland and shrub - Mixed scrub	0.14	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
10	Heathland and shrub	Heathland and shrub - Mixed scrub	0.03	Medium	4	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
11	Grassland	Grassland - Bracken	0.09	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
12	Sparsely vegetated land	Sparsely vegetated land – Ruderal/Ephemeral	0.63	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
13	Urban	Urban – Urban Tree	0.02	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1
Total site area ha			22.91							

**Table E1: A-1 Site Habitat Baseline for Non-Linear Habitats (Continued)**

Ref	Suggested action to address habitat losses	Ecological baseline	Retention category biodiversity value					
		Total habitat units	Area retained	Area enhanced	Baseline units retained	Baseline units enhanced	Area lost	Units lost
1	Same broad habitat or a higher distinctiveness habitat required	25.87	0	2.58	0.00	22.70	0.36	3.17
2	Compensation not required	0.00	0.33	0.00	0.00	0.00	0.08	0.00
3	Same broad habitat or a higher distinctiveness habitat required	70.16	0.44	1.49	3.52	11.92	6.84	54.72
4	Same broad habitat or a higher distinctiveness habitat required	2.40	0	0.28	0.00	1.12	0.32	1.28
5	Same distinctiveness or better habitat required	2.04	0	0.00	0.00	0.00	0.34	2.04
6	Same distinctiveness or better habitat required	21.60	0	0.00	0.00	0.00	5.40	21.60
7	Same distinctiveness or better habitat required	6.86	0	0.00	0.00	0.00	3.43	6.86
8	Same broad habitat or a higher distinctiveness habitat required	0.44	0	0.00	0.00	0.00	0.11	0.44
9	Same broad habitat or a higher distinctiveness habitat required	1.12	0	0.00	0.00	0.00	0.14	1.12
10	Same broad habitat or a higher distinctiveness habitat required	0.12	0	0.00	0.00	0.00	0.03	0.12
11	Same distinctiveness or better habitat required	0.18	0	0.00	0.00	0.00	0.09	0.18
12	Same distinctiveness or better habitat required	1.26	0	0.00	0.00	0.00	0.63	1.26
13	Same broad habitat or a higher distinctiveness habitat required	0.16	0	0.00	0.00	0.00	0.02	0.16
Total Site Baseline		132.21	2.51	2.58	16.32	22.70	17.82	93.19

**Table E2: A-2 Site Habitat Creation for Non-Linear Habitats**

Ref	Habitats and areas			Habitat distinctiveness		Habitat condition		Strategic significance			Temporal multiplier		
	Broad Habitat	Habitat type	Area (hectares)	Distinctiveness	Score	Condition	Score	Strategic significance	Strategic significance	Strategic position multiplier	Standard time to target condition/years	Habitat created in advance/years	Delay in starting habitat creation/years
1	Woodland and forest	Woodland and forest – Other woodland; broadleaved	0.89	Medium	4	Moderate	2	Location ecologically desirable but not in local strategy	Medium Strategic Significance	1.1	15	0	0
2	Urban	Urban – Developed land; sealed surface	8.48	V.Low	0	N/A - Other	0	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	0	0	0
3	Heathland and shrub	Heathland and shrub – Mixed Scrub	0.56	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5	0	0
4	Grassland	Grassland - Modified grassland	0.4	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	4	0	0
5	Grassland	Grassland - Modified grassland	0.31	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0	0
6	Urban	Sustainable urban drainage feature	0.04	Low	2	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	3	0	0
7	Urban	Urban tree	0.15	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	27	0	0
8	Urban	Vegetated garden	5.64	Low	2	Poor	1	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	1	0	0
9	Lakes	Ponds (Non-Priority habitat)	0.08	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	3	0	0
10	Grassland	Grassland – Other neutral	1.37	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	5	0	0
Total area ha			17.92										



**Table E2: A-2 Site Habitat Creation for Non-Linear Habitats (Continued)**

Ref	Temporal multiplier							Habitat units delivered
	Standard or adjusted time to target condition	Final time to target condition/years	Final time to target multiplier	Standard difficulty of creation	Applied difficulty multiplier	Final difficulty of creation	Difficulty multiplier applied	
1	Standard time to target condition applied	15	0.586	Low	Standard difficulty applied	Low	1	4.59
2	Standard time to target condition applied	0	1.000	Low	Standard difficulty applied	Medium	0.67	0.00
3	Standard time to target condition applied	5	0.837	Low	Standard difficulty applied	Low	1	3.75
4	Standard time to target condition applied	4	0.867	Low	Standard difficulty applied	Low	1	1.39
5	Standard time to target condition applied	1	0.965	Low	Standard difficulty applied	Low	1	0.60
6	Standard time to target condition applied	3	0.899	Medium	Standard difficulty applied	Medium	0.67	0.10
7	Standard time to target condition applied	27	0.382	Low	Standard difficulty applied	Low	1	0.46
8	Standard time to target condition applied	1	0.965	Low	Standard difficulty applied	Low	1	10.89
9	Standard time to target condition applied	3	0.899	Low	Standard difficulty applied	Low	1	0.58
10	Standard time to target condition applied	5	0.837	Low	Standard difficulty applied	Low	1	9.17
<b>Total Site Creation</b>								<b>31.51</b>

**Table E3: A-3 Site Habitat Enhancement for Non-Linear Habitats**

Ref	Baseline Habitats										Post development/post intervention habitats	
											Proposed habitat	
	Baseline Habitat	Total Habitat Area	Baseline Distinctiveness Band	Baseline Distinctiveness Score	Baseline Condition category	Baseline condition Score	Baseline Strategic significance Category	Baseline Strategic significance score	Baseline Habitat units	Suggested action to address habitat losses	Proposed broad habitat	Proposed habitat
<b>1</b>	Woodland and forest – Other woodland; broadleaved	2.94	Medium	4	Moderate	2	Medium Strategic Significance	1.1	25.87	Same broad habitat or a higher distinctiveness habitat required	Woodland and forest	Other woodland; Broadleaved
<b>2</b>	Grassland - Other neutral grassland	8.77	Medium	4	Moderate	2	Low Strategic Significance	1	70.16	Same broad habitat or a higher distinctiveness habitat required	Grassland	Other neutral grassland
<b>3</b>	Grassland - Other neutral grassland	0.6	Medium	4	Poor	1	Low Strategic Significance	1	2.40	Same broad habitat or a higher distinctiveness habitat required	Grassland	Other neutral grassland

**Table E3: A-3 Site Habitat Enhancement for Non-Linear Habitats (Continued)**

Post development/post intervention habitats															
Change in distinctiveness and condition		Area (Hectares)	Distinctiveness	Score	Condition	Score	Strategic significance			Temporal risk multiplier					
Distinctiveness change	Condition change						Strategic significance	Strategic significance	Strategic position multiplier	Standard time to target condition/ years	Habitat enhanced in advance/ years	Delay in starting habitat enhancement/ years	Standard or adjusted time to target condition	Final time to target condition/ years	Final time to target multiplier
Medium - Medium	Moderate - Good	2.58	Medium	4	Good	3	Location ecologically desirable but not in local strategy	Medium strategic significance	1.1	10	0	0	Standard time to target condition applied	10	0.700
Medium - Medium	Moderate - Good	1.49	Medium	4	Good	3	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	10	0	0	Standard time to target condition applied	10	0.700
Medium - Medium	Poor - Moderate	0.28	Medium	4	Moderate	2	Area/compensation not in local strategy/ no local strategy	Low Strategic Significance	1	10	0	0	Standard time to target condition applied	10	0.700

**Table E3: A-3 Site Habitat Enhancement for Non-Linear Habitats (Continued)**

Post development/post intervention habitats				Habitat units delivered
Difficulty risk multipliers				
Standard difficulty of enhancement	Applied difficulty multiplier	Final difficulty of enhancement	Difficulty multiplier applied	
Low	Standard difficulty applied	Low	1	30.65
Low	Standard difficulty applied	Low	1	16.09
Low	Standard difficulty applied	Low	1	1.90

