



PEAK DISTRICT EAST VISUAL IMPACT PROVISION

BIODIVERSITY NET GAIN MONITORING 2024

National Grid

A report from RSK Wilding

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General notes

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1 Introduction

1.1 Purpose of the Report

- 1.1.1 This document has been prepared by RSK Wilding, on behalf of National Grid, to present the findings of biodiversity net gain (BNG) monitoring associated with the Peak District East Visual Impact Provision (hereafter 'VIP Peak East').
- 1.1.2 This document is delivered in support of the requirements of the 10 September 2020 Unilateral Undertaking between National Grid Electricity Transmission and Barnsley Metropolitan Borough Council which sets out the BNG requirements associated with VIP Peak East. Namely the provision of a monitoring report in the year of the fourth anniversary of the commencement of development.
- 1.1.3 This documents comprises:
 - **Section 1** – an introduction to the report and a background summary to the VIP Peak East project and its BNG delivery aims;
 - **Section 2** – the methodology used to collect and assess monitoring data, including any assumptions and limitations;
 - **Section 3** – the results of BNG monitoring;
 - **Section 4** – a summary of the conclusions drawn on progress towards BNG targets based on the 2024 monitoring assessment; and,
 - **Section 5** – a summary of the approach to future monitoring and key actions for future management.
- 1.1.4 Additional information is provided in Appendix A (figures), Appendix B (site photos) and Appendix C (BNG and condition assessments).

1.2 VIP Peak East Project and BNG Delivery Background

- 1.2.1 The VIP Peak East Project is located in the Peak District National Park, South Yorkshire and was intended to reduce the visual impact of overhead lines in and around the village of Dunford Bridge, by removing a section of overhead line and replacing it with an underground electricity connection running 1.8km west to east, parallel to the River Don. These works have now been completed.
- 1.2.2 While the Unilateral Undertaking sets out a 10% BNG requirement for the VIP Peak East Project, the project is not subject to current (i.e. post 12 February 2024) mandatory BNG requirements. As such, this monitoring report considers the BNG requirements for VIP Peak East in the context of the state of BNG at the point of the Unilateral Undertaking being agreed in 2020.
- 1.2.3 Baseline surveys of the project area were undertaken between 2015 and 2019 by AECOM using the Phase 1 habitat classification methodology. To enable BNG assessments this habitat data was then converted into Defra Biodiversity Metric compatible UKHab categories.
- 1.2.4 Based on anticipated impacts and subsequent habitat reinstatement and landscaping it was considered that it would not be feasible to attain 10% BNG within the confines of the red line boundary. As a result, a long-term lease agreement was made between National Grid and The Banks Group for a 13.5 ha area of heathland and woodland at Crow Edge (hereafter 'Crow Edge') where off-site BNG measures could be delivered, approximately 990m to the north, north-east of the VIP Peak East Project. The location of both the VIP Peak East red line boundary and the Crow Edge off-site BNG delivery location are illustrated on Figure 1.
- 1.2.5 The original BNG calculations, which used anticipated levels of habitat loss, estimated the loss of 15.76 ha of habitat equating to 69.95 habitat area units. Following the inclusion of post-

development landscaping within the red line boundary and off-site habitat enhancement at Crow Edge a net increase of 12.32 habitat units, or a 11.99% net gain was calculated.

- 1.2.6 Updated BNG calculations based on actual land-take were undertaken in October 2022 and identified significantly lower levels of habitat loss, at 7.01 ha, equating to 41.66 habitat area units, which is a reduction of 8.75 ha and 28.29 habitat units compared to the original habitat loss expectations. These changes in land-take resulted in a requirement to revise the landscape drawings. In light of this reduced land-take and revisions to the landscape plans a net increase of 19 habitat area units, equating to 18.08%, was calculated.
- 1.2.7 The management of habitats within the red line boundary are currently covered by a Landscape and Ecological Management Plan (LEMP). This document focuses on the establishment of landscape planting provided as part of the VIP Peak East project including the watering, weeding, grass cutting and the monitoring and replacement of failed stock.
- 1.2.8 The management of habitats at Crow Edge is covered by a BNG Delivery Plan. The objectives of management at Crow Edge are to enhance and expand the extent of upland heathland and to enhance the condition of retained areas of woodland. The primary measures to achieve these objectives are focused on the eradication of undesirable species, in particular rhododendron, and management of tree and scrub encroachment into areas of upland heathland.
- 1.2.9 Prior to completion of the LEMP, in 2027, the BNG Delivery Plan will be updated into a Habitat Management and Monitoring Plan (HMMP) which includes both habitats within the red line boundary (including landscaping and retained habitats as appropriate) and those at Crow Edge. The HMMP will then act as the primary document guiding the delivery of BNG for VIP Peak East for the remainder of the timeframe set out in the Unilateral Undertaking (i.e. up to 2045).

2 Methodology

2.1 Survey and Assessment

- 2.1.1 To assess the status of habitats within the red line boundary and at Crow Edge in 2024 a UK Habitat (UKHab) survey and associated habitat condition assessment was undertaken between 20 and 22 August 2024 when the weather was largely dry and sunny with occasional light showers. The survey was undertaken by Lizi Pimlott, who is a full member of the Chartered Institute of Ecology and Environmental Management (CIEEM) with over ten years of survey experience. Lizi was assisted during the survey by Bethany Robinson.
- 2.1.2 The UKHab system is the habitat classification that underpins the Defra Biodiversity Metric and is therefore the favoured habitat classification to use when surveys need to inform a BNG assessment. Secondary codes were allocated to help describe habitats, such as management and land use features, alongside a narrative description of the key species and features. Plant names follow Stace (2019) for native and naturalised species for vascular plants.
- 2.1.3 The quality of identified habitats was assessed using version 2.0 of the habitat condition assessment sheets (Crosher *et al.*, 2019), and input into version 2.0 of the Defra Biodiversity Metric (Panks and Arthur, 2019) to ensure consistency with the metric used at the time of the initial assessment. The results of the UKHab survey and habitat condition assessment were then considered in relation to the BNG targets to determine the extent of progress towards these goals.
- 2.1.4 Based on this comparison, recommendations were made as to the key management considerations for the short to medium term. These may include actions already detailed within the LEMP and/or BNG Delivery Plan or adaptive management actions. Potential risks to achieving the BNG targets were identified and recommendations made as to how these should be addressed.

2.2 Baseline Habitat Category Inconsistencies

- 2.2.1 During the course of the 2024 UKHab survey it was noted that several areas of retained habitat were being assigned to a different habitat category than they had been assigned to via the conversion of Phase 1 to UKHab undertaken for the baseline originally. As retained habitats it is reasonable to expect these habitats to be classified in the same manner pre- and post-works. The absence of this consistency identified issues for completing updated BNG assessments and determining progress towards BNG targets.
- 2.2.2 As such this document proposes changes to the baseline data where there is robust evidence to support such action. While it is recognised that this is not an ideal or standard approach it is considered suitable here due to the age of the baseline data and that baseline data was collected using a different methodology and converted into a BNG compatible format, noting that while there is guidance for this process it is not an exact science and errors in re-classification are therefore possible. This approach is considered to be the most effective method to ensure that long term BNG monitoring can be accurately undertaken.
- 2.2.3 A breakdown of the identified inconsistencies and associated amendments is provided below. It should be noted that some of these changes do result in a change in habitat distinctiveness, in turn having a knock-on effect on biodiversity unit numbers.

Within the red line boundary

Woodland

- 2.2.4 With the exception of some small areas of *other coniferous woodland*, woodland within the red line boundary was assigned to the *lowland mixed deciduous woodland* UKHab category following the conversion of habitats from Phase 1 to UKHab for the original baseline. Following in person assessment using the UKHab methodology in 2024 areas of this woodland that had been retained were instead assessed as most closely aligning to the *other woodland; broadleaved* category.
- 2.2.5 Given that the 2024 UKHab survey considered areas of woodland that had been retained with no change to species composition as a result of the works, a consistent assessment of these areas of woodland between the baseline and 2024 monitoring assessment is appropriate. In light of there being several options for the conversion of Phase 1 broadleaved woodland into UKHab (including both *lowland mixed deciduous woodland* and *other woodland; broadleaved*) and the direct assignment of retained woodland to the *other woodland; broadleaved* category during the 2024 survey, an amendment of the habitat classification for these areas to *other woodland; broadleaved* in both the baseline and 2024 survey results was considered appropriate. No change to the baseline habitat condition has been made.
- 2.2.6 In the area immediately adjacent to the north of the new substation (i.e. centred at Grid Reference SE 17403 02659), comprising retained habitats, the baseline assessed the entire area as comprising woodland. In 2024 the UKHab survey noted a clear distinction between an area of woodland and area of mature *mixed scrub*. There was no evidence to indicate the recent removal of woodland and the mature nature of the scrub suggested a long-term presence. A review of aerial photographs dating back to 2002 indicated the long-term and continuous presence of woodland grading into scrub in this location at approximately consistent proportions to that recorded in person during the 2024 survey.
- 2.2.7 To ensure the accurate reflection of this distinction between habitat types, and to ensure there was not the suggestion within the Defra Biodiversity Metric of woodland loss where no such loss had occurred, the baseline was updated to reflect a split of *other woodland; broadleaved* (see paragraphs 2.2.4 and 2.2.5 above) and *mixed scrub* in this location. No change to the baseline habitat condition was made.

Heathland

- 2.2.8 Areas of heathland within the red line boundary were classified as *lowland heathland* in the original baseline. The site sits at an approximate elevation of 329m¹, with 300m typically considered to the average lowland / upland cut off point. As such, either *lowland* or *upland heathland* could be considered appropriate in this location; however, the 2024 UKHab survey identified a species composition that more closely aligned to that of upland heathland (i.e. bilberry and cross-leaved heather) than that of lowland heathland (e.g. bracken and gorse).
- 2.2.9 In light of this, the baseline categorisation of heathland was amended to upland heath to ensure the accurate reflection of the habitats present. This change has no impact on BNG calculations with both upland and lowland heathland assigned a high distinctiveness. No change to the baseline habitat condition was made.

¹ https://elevation.maplogs.com/poi/dunford_bridge_sheffield_s36_4te_uk.527164.html

Crow Edge

Woodland

- 2.2.10 The majority of woodland at Crow Edge was originally assigned to the *other woodland; mixed* category, an assignment which was supported by the 2024 UKHab survey. However, a small area (0.283 ha) of woodland was originally classified as *lowland mixed deciduous woodland*. Since baseline data was collected habitat management works to woodland at Crow Edge have comprised the removal and management of rhododendron, management of tree encroachment into areas of heathland and the creation of small glades and clearings. No planting has occurred and therefore no change to the habitat type should have occurred. However, in 2024 no distinction between woodland habitat types was identified, with all areas of woodland found to comprise a consistent mix of species which reflected other woodland; mixed.
- 2.2.11 To ensure that this BNG monitoring report accurately reflects the woodland habitats present and to enable accurate reflection of changes in habitat condition within the Defra Biodiversity Metric the baseline has therefore been amended to classify all areas of woodland at Crow Edge as *other woodland; mixed*. No change to the baseline habitat condition has been made.

Heathland / Grassland Mosaic

- 2.2.12 Outside of areas of woodland, habitats at Crow Edge have narratively been described as an upland acid grassland – upland heathland mosaic. The Defra Biodiversity Metric cannot account for mosaic habitats, instead requiring a single habitat to be entered for a given area. Within the original baseline all areas of Crow Edge outside of the woodland and pond were categorised as upland heathland. However, during the 2024 UKHab survey the area at the southern extent of Crow Edge, around the pond, was found to clearly comprise an area of solely *upland acid grassland* with no evidence of dwarf scrub species indicative of heathland. A review of aerial photography indicated no change in the extent of heathland into this area since the baseline was collected and no management actions to remove heathland from this area have occurred since habitat management works commenced in 2022.
- 2.2.13 As such, it is considered that the area of *upland acid grassland* would have been present at the time the baseline was collected and represents a sufficiently discrete habitat area so as to be classified as *upland acid grassland*, to separate it from the wider area of heathland. To ensure that this BNG monitoring report accurately reflects the original extent of heathland at Crow Edge, and the other habitats present within the site, as well as enabling the accurate reflection of changes in habitat condition, and future changes in habitat extent, the baseline has therefore been amended within the Defra Biodiversity Metric to classify the southern area of the Crow Edge site as *upland acid grassland*. As there is insufficient information to assess the condition of this habitat at the time of baseline collection, a moderate condition assessment, consistent with that recorded in 2024, has been assigned.

2.3 Assumptions and Limitations

- 2.3.1 The assessment of BNG within this document uses version 2.0 of the Defra Biodiversity Metric and version 2.0 of the associated habitat condition assessment sheets. This was the form of metric at the time of the initial assessment and on which the BNG targets and Unilateral Undertaking are based, and therefore ensures a consistency of approach that could not be achieved if the current Statutory Metric was used, due to the number of, sometimes significant, changes that have occurred.
- 2.3.2 Access restrictions at the time of survey prevented some areas within the red line boundary from being fully assessed. These are indicated on Figure 2. Baseline habitats, knowledge of the nature of

the works in these areas and aerial photography pre / during the works have been reviewed to make a determination on the nature of habitats within these areas. Where it was considered that habitat has been retained the baseline habitat type and condition has been assigned in the Defra Biodiversity Metric.

- 2.3.3 While watercourse units were identified within the baseline of the red line boundary, no impacts to these units were identified and therefore, in line with the understanding of BNG requirements at the time, no uplift requirements were identified. As such, this monitoring report does not consider watercourse units further.

3 Results

3.1 Within Red Line Boundary

- 3.1.1 The results of the 2024 UKHab survey within the red line boundary are illustrated on Figure 3. In summary, the survey identified the presence of:
- *Developed land; sealed surface;*
 - *Artificial unvegetated; unsealed surface;*
 - *Other neutral grassland;*
 - *Woodland; other broadleaved;*
 - *Mixed scrub;*
 - *Upland heathland;*
 - *Modified grassland;*
 - *Sparsely vegetated land – ruderal/ephemeral; and,*
 - *Other woodland; young trees planted.*
- 3.1.2 Table 1 below provides a detailed description of the current status of these habitats, alongside a review of the baseline condition and BNG targets. Photographs of these habitats at the time of the 2024 survey are provided in Appendix B.

Table 1. On-site 2024 UKHab Results and BNG Progress Assessment

2024 UKHab Classification and Reference	Location	2024 Habitat Description	Baseline Habitat and Condition*	BNG Target **	Key Actions Required
<i>Developed land; sealed surface – U1b-1</i>	U1b-1 relates to the Trans Pennine Trail route that passes through the VIP Peak East red line boundary from SE 15929 02406 to SE 18629 02745	At the time of the 2024 survey, Flexi Pave had been used to create an unvegetated surface for the Trans Pennine Trail (Plate 1). The trail is surrounded by grassland and woodland on both sides for the majority of its length within the red line boundary. These habitats are described separately below. A condition assessment of this habitat type is not required.	<i>Developed land; sealed surface</i> - Condition Assessment: N/A	<i>Developed land; sealed surface</i> - Condition Assessment: N/A	N/A
<i>Developed land; sealed surface – U1b-2</i>	U1b-2 relates to a car park for those accessing the Trans Pennine Trail, which is located at the western end of the site at SE 15812 02402 and falls partially within, and partially outside, the VIP Peak East red line boundary.	In 2024 the car park predominately comprised a tarmacked surface, although individual parking spaces used grasscrete, which is described separately below under ' <i>sparsely vegetated land – ruderal/ephemeral</i> ' (Plate 2). Small areas of herbaceous planting were also present but fell below the minimal mappable area or were located in parts of the car park which fall outside the red line boundary. A condition assessment of this habitat type is not required.	<i>Developed land; sealed surface</i> - Condition Assessment: N/A	<i>Developed land; sealed surface</i> - Condition Assessment: N/A	N/A
<i>Developed land; sealed surface – U1b-3</i>	U1b-3 relates to the Dunford Bridge substation which is located at the western end of the site at grid reference SE 15816 02369.	In 2024 this area primarily comprised concrete surfaces with some gravelled areas (see ' <i>sparsely vegetated land – ruderal/ephemeral</i> ' below). Buildings were also present. The substation was surrounded by vegetated rocky slopes which were located outside of the red line boundary. No heathland was present in this area in 2024 (Plate 3). A condition assessment of this habitat type is not required.	<i>Developed land; sealed surface</i> - Condition Assessment: N/A <i>Upland heathland</i> – Condition Assessment: Poor	<i>Developed land; sealed surface</i> - Condition Assessment: N/A	N/A
<i>Developed land; sealed surface – U1b-3</i>	U1b-4 relates to a new substation and associated access track, created as part of the VIP Peak East project which is located in the centre of the site at grid reference SE 17344 02649.	In 2024 this area was found to predominately comprises concrete surfaces and build infrastructure. Although a grasscrete track (see ' <i>sparsely vegetated land – ruderal/ephemeral</i> ' below) was also present (Plate 4). A condition assessment of this habitat type is not required.	<i>Other woodland; broadleaved</i> – Condition Assessment: Moderate <i>Other lowland acid grassland</i> – Condition Assessment: Fairly Good <i>Other neutral grassland</i> – Condition Assessment: Fairly Good	<i>Developed land; sealed surface</i> - Condition Assessment: N/A	N/A
<i>Artificial unvegetated; unsealed surface – U1c-1</i>	U1c-1 relates to an access track leading from Windle Edge Road at grid reference SE 15634 02121 to the former substation located at grid reference SE 15580 02230 at the far western extent of the site.	In 2024 this area comprised a compacted gravel and soil surface (Plate 5). While the access track was surrounded by woodland located outside the red line boundary the track had been widened such that the thin margin of other coniferous woodland on either side of the access track was no longer present within the red line. A condition assessment of this habitat type is not required.	<i>Developed land; sealed surface</i> - Condition Assessment: N/A <i>Other coniferous woodland</i> ; Condition Assessment - Poor	<i>Developed land; sealed surface</i> - Condition Assessment: N/A <i>Other coniferous woodland</i> ; Condition Assessment - Poor	The absence of other coniferous woodland from this location in 2024 may be due to a widening of the access track compared to that anticipated and/or variations in mapping between the baseline and 2024 and other coniferous woodland remains outside of the red line boundary in 2024. Given the minimal extent of this area of habitat originally assumed to be retained (0.02 ha) and the creation of new areas of woodland of higher distinctiveness as part of the VIP Peak East landscaping works no works to remediate for this specific difference are proposed and it is not considered that this will adversely impact on achieving a minimum 10% net gain.
<i>Artificial unvegetated; unsealed surface – U1c-2</i>	U1c-2 relates to a public footpath that leads from Windle Edge Road at grid reference SE 15765 02328 to a former pylon site at SE 16122	In 2024 the footpath was assessed as comprising a stony substrate with occasional annual meadow grass (<i>Poa annua</i>) (Plate 6). Areas of other woodland; broadleaved and upland heathland were no longer present within the red line boundary.	<i>Developed land; sealed surface</i> - Condition Assessment: N/A <i>Other woodland; broadleaved</i> – Condition Assessment: Moderate	<i>Developed land; sealed surface</i> - Condition Assessment: N/A	N/A

2024 UKHab Classification and Reference	Location	2024 Habitat Description	Baseline Habitat and Condition*	BNG Target **	Key Actions Required
	02316 on the southern side of the Trans Pennine Trail.	A condition assessment of this habitat type is not required.	<i>Upland heathland</i> – Condition Assessment: Poor		
<i>Artificial unvegetated; unsealed surface</i> – U1c-3	U1c-3 relates to a private access track located to the north of the Trans Pennine Trail, starting at the car park (SE 15935 02419) and ending a former pylon site (SE 16872 02628).	<p>In 2024 the track was assessed as comprising a compacted soil surface surrounded on both sides, by a combination of woodland, heathland and grassland habitats (Plate 7).</p> <p>A condition assessment of this habitat type is not required.</p>	<p><i>Developed land; sealed surface</i> - Condition Assessment: N/A</p> <p><i>Bracken</i> – Condition Assessment: Poor</p> <p><i>Other woodland; broadleaved</i> – Condition Assessment: Moderate</p> <p><i>Upland heathland</i> – Condition Assessment: Poor</p> <p><i>Other neutral grassland</i> – Condition Assessment: Moderate</p>	<p><i>Developed land; sealed surface</i> - Condition Assessment: N/A</p> <p><i>Bracken</i> – Condition Assessment: Poor</p>	Original BNG assessments assumed that a small area of <i>bracken</i> would be recreated / allowed to regenerate. In 2024 this had not occurred; however, while the natural regeneration of bracken (where it does not impinge on the functionality of the access track) may be permitted to occur in the future no active actions to recreate this habitat are proposed. Due to the minimal extent of this area of habitat (0.01 ha) it is not considered that this will adversely impact on achieving a minimum 10% net gain.
<i>Other neutral grassland</i> – G3c-1	G3c-1 relates to the former substation site at the western extent of the site at SE 15553 02252.	<p>In 2024 this area was comprised predominately of other neutral grassland with small areas of landscape planting (which extended outside the red line boundary considered for BNG) intended to create woodland and woodland edge / scrub habitats (see <i>other woodland; young trees</i> planted and new <i>mixed scrub</i> below).</p> <p>In 2024 the area of grassland in this location was assessed as being other neutral grassland with abundant crested dog’s tail (<i>Cynosurus cristatus</i>) and Yorkshire fog (<i>Holcus lanatus</i>) with clover (<i>Trifolium</i> spp.), broad leaved dock (<i>Rumex obtusifolius</i>), creeping buttercup (<i>Ranunculus repens</i>), lesser trefoil (<i>Trifolium dubium</i>) and rough meadow grass (<i>Poa trivialis</i>) also recorded. Rare occurrences of ladies tresses orchid (<i>Spiranthes</i> spp.) were also recorded (Plate 8).</p> <p>This area of grassland was assessed as being in moderate condition. It was considered to be a good example of a neutral grassland with a limited extent of bare ground.</p>	<p><i>Developed land; sealed surface</i> - Condition Assessment: N/A</p> <p><i>Modified grassland</i> – Condition Assessment: Poor</p>	<p><i>Other neutral grassland</i>- Condition Assessment: Good</p> <p>(see also <i>other woodland; young trees</i> planted and new <i>mixed scrub</i> below).</p>	<p>Progress towards the BNG target for <i>other neutral grassland</i> in this location can be seen in the 2024 results. Further improvements; however, are required to achieve the BNG target.</p> <p>In line with the LEMP this area of grassland will be subject to grass cuts intended to support the development of increased species diversity. This will be monitored to determine if any additional interventions e.g. reseeding, are required.</p> <p>The extent of bare ground will be monitored to determine whether any additional interventions are required to enable this to achieve its optimal extent</p>
<i>Other neutral grassland</i> – G3c-2	G3C-2 relates to an area adjacent to a car park in the west of the site at SE 15901 02386.	<p>While works in this area have resulted in the removal of areas of <i>developed land; sealed surface</i> the impacts of the works also meant the effective loss of areas of <i>other neutral grassland</i>. However, the area has since been re-sown with a grassland mix and in 2024 this area was assessed as comprising other neutral grassland.</p> <p>In 2024 the vegetation was dominated by crested dog’s tail with abundant Yorkshire fog and meadow vetchling (<i>Lathyrus pratensis</i>), frequent common knapweed (<i>Centaurea nigra</i>), occasional oxeye daisy (<i>Leucanthemum vulgare</i>), yarrow (<i>Achillea millefolium</i>), selfheal (<i>Prunella vulgaris</i>), clover and vetch (<i>Vicia</i> spp) species. Rare occurrences of spear thistle (<i>Cirsium vulgare</i>), ragwort (<i>Jacobaea vulgaris</i>), broad leaved dock, nettle (<i>Urtica dioica</i>), ribwort plantain (<i>Plantago lanceolata</i>) and rosebay willowherb (<i>Chamaenerion angustifolium</i>) were also recorded (Plate 9).</p> <p>This area of grassland was assessed as being in moderate condition. It was considered to be a good example of a neutral grassland with a limited extent of bare ground.</p>	<p><i>Developed land; sealed surface</i> - Condition Assessment: N/A</p> <p><i>Other neutral grassland</i> – Condition Assessment: Moderate</p>	<p><i>Other neutral grassland</i> – Condition Assessment: Good</p> <p>(see also <i>other woodland; young trees</i> planted and new <i>mixed scrub</i> below).</p>	<p>Progress towards the BNG target for <i>other neutral grassland</i> in this location can be seen in the 2024 results. Further improvements; however, are required to achieve the BNG target.</p> <p>In line with the LEMP this area of grassland will be subject to grass cuts intended to support the development of increased species diversity. This will be monitored to determine if any additional interventions e.g. reseeding, are required.</p> <p>The extent of bare ground will be monitored to determine whether any additional interventions are required to enable this to achieve its optimal extent</p>

2024 UKHab Classification and Reference	Location	2024 Habitat Description	Baseline Habitat and Condition*	BNG Target **	Key Actions Required
<i>Other neutral grassland</i> – G3c-3	G3c-3 relates to areas of grassland adjacent to the north and south of the Trans Pennine Trail	<p>Works in this area replaced the Trans Pennine Trail (see U1b-1 above) with new developed land; sealed surface and in the process resulted in the removal of areas of other broadleaved; woodland and the effective loss of areas of <i>other neutral grassland</i>. However, the area has since been re-sown with a grassland mix and in 2024 this area was assessed as comprising other neutral grassland.</p> <p>The species composition of grassland in this location in 2024 was noted to be less diverse than other areas of other neutral grassland within the red line boundary, with low forb content and abundant crested dog’s tail and Yorkshire fog (Plate 10).</p> <p>This area of grassland was assessed as being in moderate condition. It was considered to be a good example of a neutral grassland with the extent of bare ground being even lower than that of other areas of other neutral grassland within the red line boundary.</p>	<p><i>Developed land; sealed surface</i> - Condition Assessment: N/A</p> <p><i>Other neutral grassland</i> – Condition Assessment: Moderate</p> <p><i>Other woodland; broadleaved</i> – Condition Assessment: Moderate</p>	<i>Other neutral grassland</i> – Condition Assessment: Good (see also <i>other woodland; young trees</i> planted and new <i>mixed scrub</i> below).	<p>Progress towards the BNG target for <i>other neutral grassland</i> in this location can be seen in the 2024 results. Further improvements; however, are required to achieve the BNG target.</p> <p>Grassland habitats along the Trans Pennine Trail are due to be managed by the Barnsley Metropolitan Borough Council and therefore fall outside of the LEMP; however, the area will continue to be monitored as part of BNG assessments and management review visits and key feedback passed to Barnsley Metropolitan Borough Council for incorporation into their management plans.</p>
<i>Other neutral grassland</i> – G3c-4	G3c-4 relates to areas of other neutral grassland that have been created within Wogden Foot LWS which is located to the north of the Trans Pennine Trail and to the east of the new substation at SE 17197 02632.	<p>Works in this area have resulted in the loss of areas of <i>modified grassland, other lowland acid grassland, other neutral grassland, other woodland; broadleaved, mixed scrub</i> and <i>developed land; sealed surface</i>. Some areas of other neutral grassland were retained with additional areas of grassland, assessed as <i>other neutral grassland</i> in 2024, have been created through re-seeding.</p> <p>In 2024 this area of <i>other neutral grassland</i> was found to have a varied sward height and greater extent of bare ground than noted in other grassland areas. The species composition was found to be similar to those of other, already described areas of other neutral grassland but with the notable addition of occasional common centaury (<i>Centaureum erythraea</i>), mignonette (<i>Reseda lutea</i>), wild marjoram (<i>Origanum vulgare</i>), St. John’s wort (<i>Hypericum perforatum</i>) and harebell (<i>Campanula rotundifolia</i>) (Plate 11).</p> <p>This area of grassland considered to be a good example of a neutral grassland and was assessed as being in moderate condition.</p>	<p><i>Modified grassland</i> – Condition Assessment: Poor</p> <p><i>Other lowland acid grassland</i> – Condition Assessment: Fairly Good</p> <p><i>Other neutral grassland</i> – Condition Assessment: Fairly Good / Moderate</p> <p><i>Other woodland; broadleaved</i> – Condition Assessment: Moderate</p> <p><i>Mixed scrub</i> – Condition Assessment: Moderate</p> <p><i>Developed land; sealed surface</i> - Condition Assessment: N/A</p>	<p><i>Lowland Meadow</i> – Condition Assessment: Moderate</p> <p><i>Other lowland acid grassland</i> – Condition Assessment: Fairly Good</p> <p>(see also <i>other woodland; young trees</i> planted and new <i>mixed scrub</i> below).</p>	<p>The seeding mixes in this location included bespoke mixes intended to reflect the species composition of Wogden Foot LWS prior to the works. Based on the species listed it was considered that once established this grassland would best reflect a <i>lowland meadow</i> composition, although from baseline data it was recognised that the in some areas an acid soil would be likely to result in a <i>lowland acid grassland</i>.</p> <p>While this grassland has currently been assessed as <i>other neutral grassland</i> instead this is not considered to exclude the ability for this area of grassland to develop into the requisite grassland habitats.</p> <p>In line with the LEMP this area of grassland will be subject to grass cuts intended to support the development of increased species diversity. The species composition of this area of grassland will be closely monitored to ensure continue progress towards the level of species diversity required as well as the extent to which any underlying soil conditions are influencing the diversity. The need for interventions to supplement species diversity and or adapt the species diversity to better suit soil conditions (i.e. acidic soils) will be continuously reviewed.</p> <p>The extent of bare ground will be monitored to ensure it does not exceed that considered to be optimal for grassland habitats.</p>
<i>Other woodland; broadleaved</i> – W1g-1	W1G-1 relates to a former pylon corridor which crosses the Trans Pennine Trail.	<p>This habitat parcel relates to an area of woodland retained during the works. In 2024 <i>other woodland; broadleaved</i> woodland parcels were present on either side of the Trans Pennine Trail (SE 16096 02382 and SE 16138 02409). As these parcels were consistent in composition and appearance they have been grouped for the purposes of this assessment.</p> <p>The woodland comprised areas of young woodland with small sized trees including abundant birch (<i>Betula</i> spp.) and willow (<i>Salix</i> spp.) species, occasional rowan (<i>Sorubus aucuparia</i>), sycamore (<i>Acer pseudoplatanus</i>), hawthorn and alder (<i>Alnus glutinosa</i>) and rare occurrences of oak (<i>Quercus</i> spp.) and cherry (<i>Prunus</i> spp.) species. The ground flora was relatively sparse comprising frequent bramble</p>	<p><i>Other woodland; broadleaved</i> – Condition Assessment: Moderate</p> <p><i>Upland Heathland</i> – Condition Assessment: Poor</p> <p><i>Other neutral grassland</i> – Condition Assessment: Moderate</p>	<i>Other woodland; broadleaved</i> – Condition Assessment: Moderate	<p>No specific change in condition of areas of retained woodland in location was proposed. The 2024 survey indicates that this habitat has been retained and continues to achieve moderate condition.</p> <p>Future management and monitoring will focus on ensuring that a minimum of moderate condition continues to be achieved.</p> <p>Where appropriate arisings are generated from other activities on-site steps will be taken to increase the extent of deadwood in this area of woodland, one of the current criteria limiting its condition assessment.</p>

2024 UKHab Classification and Reference	Location	2024 Habitat Description	Baseline Habitat and Condition*	BNG Target **	Key Actions Required
		<p>(<i>Rubus fruticosus</i>) and nettle, occasional common hogweed (<i>Heracleum sphondylium</i>) and broad buckler fern (<i>Dryopteris dilatata</i>) and rare rosebay willowherb (Plate 12).</p> <p>This area of other woodland; broadleaved was assessed as being in moderate condition failing only on condition criteria relating to tree age, height and deadwood.</p>			
<i>Other woodland; broadleaved – W1g-2</i>	W1g-2 relates to areas of woodland within Wogden Foot LWS.	<p>The majority of woodland in this location was retained through the works, although some areas of woodland removal did occur. W1g-2 relates to the parts of this woodland that have been retained. In 2024 it was found that the woodland was split into three distinct parcels (SE 17366 02598, SE 17212 02614 and SE 17212 02652); however, given their consistent composition and appearance and they have been considered together in this assessment.</p> <p>The woodland comprised young woodland of similar composition to W1g-1, namely abundant birch and willow, occasional rowan, sycamore, hawthorn and alder and rare occurrences of oak and cherry species (Plate 13).</p> <p>This area of other woodland; broadleaved was assessed as being in moderate condition failing only on condition criteria relating to tree age, height and deadwood.</p>	<i>Other woodland; broadleaved – Condition Assessment: Moderate</i>	<i>Other woodland; broadleaved – Condition Assessment: Moderate</i>	<p>No specific change in condition of areas of retained woodland in location was proposed. The 2024 survey indicates that this habitat has been retained and continues to achieve moderate condition.</p> <p>Future management and monitoring will focus on ensuring that a minimum of moderate condition continues to be achieved.</p> <p>Where appropriate arisings are generated from other activities on-site steps will be taken to increase the extent of deadwood in this area of woodland, one of the current criteria limiting its condition assessment.</p>
<i>Other woodland; broadleaved – W1g-3</i>	W1g-3 relates to an area of woodland to the north of the new substation at SE 17395 02697 and on a steep embankment leading down to the River Don, outside the red line boundary.	<p>This area of woodland was retained without impact during the works.</p> <p>In 2024 this woodland was assessed as being other woodland; broadleaved of more mature structure than other areas of other woodland; broadleaved within the red line boundary, with some medium sized trees present (Plate 14). Tree species within this woodland parcel included alder, willow species and sycamore. Deadwood was noted within the woodland parcel and the ground flora was grassy due to light being able to enter through the canopy.</p> <p>This area of other woodland; broadleaved was assessed as being in good condition passing all condition criteria.</p>	<i>Other woodland; broadleaved – Condition Assessment: Moderate</i>	<i>Other woodland; broadleaved – Condition Assessment: Moderate</i>	<p>Although no specific change in the condition of this area of woodland was originally targeted the 2024 survey indicates that an improvement from moderate to good condition has occurred.</p> <p>Future management and monitoring will focus on ensuring that this new, improved condition, is retained.</p>
<i>Mixed scrub – H3h-1</i>	H3h-1 relates to an area adjacent to the path at SE 15863 02393.	<p>This area of <i>mixed scrub</i> was retained without impact during the works.</p> <p>In 2024 this area comprised entire of <i>mixed scrub</i> which was found to be largely mature and dense in structure. The composition of this scrub included abundant dogwood (<i>Cornus sanguinea</i>) and occasional alder, birch species, hazel (<i>Corylus avellana</i>), hawthorn, ash (<i>Fraxinus excelsior</i>) and dog rose (<i>Rosa canina</i>), with no single species comprising more than 75% of the cover (Plate 15). A varied age range of shrubs was noted with an absence of invasive species and limited occurrence of any pernicious weeds A well-developed edge comprising grassland and tall forbs was present on the southern side.</p> <p>This area of mixed scrub was assessed as being in moderate condition meeting all bar one condition criteria.</p>	<i>Mixed scrub – Condition Assessment: Poor</i>	<i>Mixed scrub – Condition Assessment: Good</i>	<p>This area of <i>mixed scrub</i> has shown positive progression towards the BNG target of good condition with only a single criteria currently failed; namely the presence of glades and clearings.</p> <p>Future monitoring and management will assess the suitability of creating glades and clearings within this area of <i>mixed scrub</i> and if deemed appropriate implement the necessary actions to deliver on this criteria.</p> <p>Where this is deemed unsuitable (e.g. due to the small extent of the habitat) the management and monitoring will focus on maintaining at least moderate condition and assessing whether other criteria have developed to such an extent that a ‘fairly good’ condition assessment is appropriate. While this would result in this specific habitat not achieving the targeted condition of good the small extent of this habitat (0.059 ha), the overall % net gain deemed feasible and positive progression of other habitats means that it is not considered that this would</p>

2024 UKHab Classification and Reference	Location	2024 Habitat Description	Baseline Habitat and Condition*	BNG Target **	Key Actions Required
					prevent at least a 10% net gain from being achieved across the project as a whole.
<i>Mixed scrub</i> – H3h-2	H3h-2 relates to an area adjacent to the new substation at SE 17397 02662.	<p>This area was largely retained during the works.</p> <p>In 2024 this area was assessed as being an area of grassland with a large number of young trees and mature shrubs which covered more than 25% of the area, but which did not exceed 5m in height and was therefore assessed as being <i>mixed scrub</i>.</p> <p>Woody species in this area included willow and birch species, as well as hawthorn (Plate 16). A number of clearings were present within the scrub where the grassland species composition was consistent with that of adjacent areas of other neutral grassland (G3c-4). A well-developed edge of grassland and tall forbs was also present.</p> <p>This area of mixed scrub was assessed as being in good condition meeting all five of the condition criteria.</p>	<i>Mixed scrub</i> – Condition Assessment: Moderate	<i>Mixed scrub</i> – Condition Assessment: Good	<p>This area of mixed scrub was assessed as having achieved the target BNG condition of 'good' in 2024.</p> <p>Future management and monitoring will focus on ensuring good condition is maintained.</p>
<i>Mixed Scrub</i> – New Mixed Scrub	The former substation location, at the Trans Pennine Trail car park, on the edges of retained woodland along the Trans Pennine Trail and on the edges of retained woodland within Wogden Foot LWS.	<p>As part of the habitat reinstatement and landscaping works for the VIP Peak East Project woodland edge, scrub planting has been created at the aforementioned locations, where previously areas of <i>other woodland broadleaved and other neutral grassland</i>, were located.</p> <p>The species composition of areas of new scrub planting included hawthorn, elder (<i>Sambucus nigra</i>), guelder rose (<i>Viburnum opulus</i>) and honeysuckle (<i>Lonicera periclymenum</i>) (Plate 17).</p> <p>All areas of new scrub planting were assigned to the mixed scrub habitat category and assessed as being in poor condition due to their recent creation and limited establishment at the time of the 2024 monitoring visit.</p>	N/A	<i>Mixed scrub</i> – Condition Assessment: Good	<p>The current status of areas of new mixed scrub planting reflects the recent planting of these areas.</p> <p>In the immediate future these areas of habitat will be managed in accordance with the LEMP with a focus on appropriate watering and weeding to ensure the establishment of specimens. Specimens will be regularly monitored with failures identified and replaced.</p>
<i>Upland Heathland</i> – H1b-1	H1h-1 relates to the area around a former pylon location at SE 16077 02328 to the south of the Trans Pennine Trail	<p>This area was largely retained during the works.</p> <p>In 2024 this area was assessed as upland heathland with the area being dominated by ling heather (<i>Calluna vulgaris</i>) with occasional bell heather (<i>Erica cinerea</i>), cross leaved heather (<i>Erica tetralix</i>) and billberry (<i>Vaccinium myrtillus</i>) (Plate 18). Heather and other dwarf shrubs of varied ages covered more than 50% of the area. There was no evidence of damage or the presence of undesirable species and the extent of any trees or scrub cover was less than 15%.</p> <p>This area of upland heathland was therefore assessed as being in good condition, passing all seven condition criteria.</p>	<i>Upland Heathland</i> – Condition Assessment: Poor	<i>Upland Heathland</i> – Condition Assessment: Poor / Moderate	<p>This area of upland heath was assessed as having exceeded the target BNG conditions for upland heathland on site in which some areas were targeting moderate condition while others assumed the retention of poor condition.</p> <p>Future management and monitoring will focus on ensuring good condition is maintained.</p>
<i>Modified grassland</i> – G4-1	G4-1 relates to land under the former pylon corridor which occurs across a number of fields, separated by stone walls, to the north of the Trans Pennine Trail.	Prior to the works this area predominantly comprised <i>modified grassland</i> , used for agricultural purposes and small areas of <i>developed land; sealed surface, bracken</i> and <i>vacant / derelict / bare ground</i> . Much of this area was retained during the works; however, some impacts occurred as a result of access routes and disturbance from works activities.	<i>Modified grassland</i> – Condition Assessment: Poor	<i>Modified grassland</i> – Condition Assessment: Poor / Moderate	The majority of modified grassland across the site targeted poor condition due to the ongoing use of these areas for agricultural purposes. Smaller areas of modified grassland targeted moderate condition. While some of these areas fall within parts of the site that could not be accessed in 2024 (see below) areas that could be surveyed were all in use of agricultural purposes and therefore poor condition is considered to be the maximum condition that can be achieved without a change in land use.

2024 UKHab Classification and Reference	Location	2024 Habitat Description	Baseline Habitat and Condition*	BNG Target **	Key Actions Required
		<p>In 2024 this area continued to be used for agricultural purposes, a habitat and usage that was consistent with the wider parts of these fields which fall outside the red line boundary</p> <p>Species diversity was poor with perennial ryegrass (<i>Lolium perenne</i>) dominating as well as frequent Yorkshire fog and smooth meadow grass (<i>Poa pratensis</i>), occasional broad leaved dock, ragwort and creeping thistle (<i>Cirsium arvense</i>) and rare Timothy (Phleum pratense), spear thistle and butterbur (<i>Petasites hybridus</i>) (Plate 19, Plate 20). Some areas of bare ground were noted following the relatively recent reinstatement of the grassland. The topography of these areas was undulating with some areas of dampness indicated by the presence of soft rushes (<i>Juncus effusus</i>).</p> <p>Areas of modified grassland were assessed as being in poor condition due to it representing an agricultural grassland characterised by rye-grass and managed as pasture.</p>			These areas have been handed back to the landowners and therefore no active management as part of the VIP Peak East project is proposed. However, these areas will continue to be monitored during BNG assessment visits and it is considered that the continued use of these areas in the manner that they have historically been used will continue to see them achieve modified grassland in poor condition.
<i>Sparsely Vegetated Land – Ruderal / Ephemeral</i>	Trans Pennine Trail car park, at Dunford Bridge Substation and associated with the new substation at Wogden Foot LWS	<p>Small areas of <i>Sparsely Vegetated Land – Ruderal / Ephemeral</i> were located in each of the aforementioned locations.</p> <p>Areas of <i>sparsely vegetated land – ruderal / ephemeral</i> within the Trans Pennine Trail car park related to new car parking bays in which grasscrete had been used, through which some vegetation growth could occur. During the 2024 survey these areas were found to contain frequent annual meadow grass (Plate 21).</p> <p>At Dunford Bridge substation this habitat took the form of ruderal / ephemeral vegetation present along the site boundaries which comprised frequent ragwort and rosebay willowherb, as well as occasional bramble and horsetail species (<i>Equisetum</i> spp.) (Plate 22).</p> <p>At Wogden Foot a grasscrete access track was present between the Trans Pennine Trail and the new substation which contained frequent annual meadow grass (Plate 23).</p> <p>All areas of <i>Sparsely Vegetated Land – Ruderal / Ephemeral</i> were assessed as being in poor condition in 2024.</p>	N/A	<i>Sparsely Vegetated Land – Ruderal / Ephemeral – Condition Assessment: Moderate</i>	<p>The status of these areas of habitat in 2024 is considered in large part to be due to the relatively recent establishment of these areas.</p> <p>Areas of <i>Sparsely Vegetated Land – Ruderal / Ephemera</i> will be monitored to assess the progress of natural colonisation and development</p>
<i>Other woodland; young trees planted</i>	Former substation location, at the Trans Pennine Trail car park, on the edges of retained woodland along the Trans Pennine Trail and on the edges of retained woodland within Wogden Foot LWS.	<p>As part of the habitat reinstatement and landscaping works for the VIP Peak East Project areas of tree planting to create woodland (i.e. <i>other woodland; young trees planted</i>) were located in each of the aforementioned locations.</p> <p>New tree planting included a mix of native tree and shrub saplings including birch, oak, hawthorn and elder (Plate 24). Across areas of new tree planting saplings were largely considered to be in good health although a small number of specimens were noted to be dead or in poor condition.</p> <p>All areas of other woodland; young trees planted were assessed as being in poor condition in line with this being the only condition assessment score applicable to this habitat type and reflecting its recent creation and limited establishment at the time of the 2024 monitoring visit. During future BNG monitoring assessments these areas of habitat will be re-assessed and, providing sufficient development has occurred, may be re-classified to an appropriate</p>	N/A	<i>Other woodland; broadleaved – Condition Assessment: Moderate</i>	<p>The current status of areas of new tree planting reflects the recent planting of these areas.</p> <p>In the immediate future these areas of habitat will be managed in accordance with the LEMP with a focus on appropriate watering and weeding to ensure the establishment of specimens. Specimens will be regularly monitored with failures identified and replaced.</p>

2024 UKHab Classification and Reference	Location	2024 Habitat Description	Baseline Habitat and Condition*	BNG Target **	Key Actions Required
		woodland habitat category and subject to the condition assessment criteria appropriate for woodlands.			
<i>Un-surveyed Area (Western)</i>	This area relates to the wayleave between the former substation and Windle Edge road and an area of land on the eastern side of Windle Road	This area could not be surveyed in 2024 due to access constraints. Based on this being an area of limited works, with no notable areas of damage shown when comparing before and during aerial photographs it has been assumed that these areas have been retained with no change in condition for the purposes of these calculations	<i>Other neutral grassland</i> – Condition Assessment: Moderate <i>Developed land; sealed surface</i> – Condition Assessment: N/A <i>Upland heathland</i> – Condition Assessment: Poor <i>Modified grassland</i> – Condition Assessment: Poor	<i>Other neutral grassland</i> – Condition Assessment: Moderate <i>Developed land; sealed surface</i> – Condition Assessment: N/A <i>Upland Heathland</i> – Condition Assessment: Poor / Moderate <i>Modified grassland</i> – Condition Assessment: Poor / Moderate	The immediate aim for this area will be to obtain access to confirm the assumptions that have had to be made as part of this BNG assessment.
<i>Un-surveyed Area (Mid)</i>	This area relates to the parcel of land between the Trans Pennine Trail and area of modified grassland in agricultural use.	This area could not be surveyed in 2024 due to access constraints. Based on this being an area of limited works, with no notable areas of damage shown when comparing before and during aerial photographs it has been assumed that these areas have been retained with no change in condition for the purpose of these calculations	<i>Modified grassland</i> – Condition Assessment: Poor <i>Upland heathland</i> – Condition Assessment: Poor <i>Other neutral grassland</i> – Condition Assessment: Moderate	<i>Modified grassland</i> – Condition Assessment: Poor <i>Upland Heathland</i> – Condition Assessment: Poor / Moderate <i>Other neutral grassland</i> – Condition Assessment: Moderate	The immediate aim for this area will be to obtain access to confirm the assumptions that have had to be made as part of this BNG assessment.
<i>Un-surveyed Area (North)</i>	This area relates to an access road that has been created as part of the works from Brook Hill Lane in the north across agricultural grassland fields to areas where works occurred.	This area could not be surveyed in 2024 due to access constraints. However, based on aerial photographs it appears that the access road created as part of the works may still be present. As such it has been assumed that this section of the red line boundary comprises <i>developed land; sealed surface</i> as of 2024.	<i>Developed land; sealed surface</i> – Condition Assessment: N/A	<i>Modified grassland</i> – Condition Assessment: Poor	The immediate aim for this area will be to obtain access to confirm the assumptions that have had to be made as part of this BNG assessment.
<i>Un-surveyed Area (East)</i>	This area relates to an access route created between the Trans Pennine Trail and a former pylon location to the north at the far eastern extent of the site.	This area could not be surveyed in 2024 due to access constraints. Based on this being an area of limited works, with no notable areas of damage shown when comparing before and during aerial photographs it has been assumed that these areas have been retained with no change in condition for the purpose of these calculations	<i>Other lowland acid grassland</i> – Condition Assessment: Fairly Good	<i>Other lowland acid grassland</i> – Condition Assessment: Fairly Good	The immediate aim for this area will be to obtain access to confirm the assumptions that have had to be made as part of this BNG assessment.

*Note. Baseline habitat reflects all baseline habitats present in the location of a 2024 habitat category

**Note. The BNG target relates to the specific 2024 habitat category listed in a given row. Other habitats may also be present in these areas with BNG targets for these habitats listed in their respective rows.

3.2 Crow Edge

- 3.2.1 The results of the 2024 UKHab survey at Crow Edge are illustrated on Figure 4. In summary, the survey identified the presence of:
- *Upland heathland;*
 - *Upland acid grassland;*
 - *Pond (non-priority); and,*
 - *Other woodland, mixed.*
- 3.2.2 Table 2 below provides a detailed description of the current status of these habitats, alongside a review of the baseline condition and BNG targets. Photographs of these habitats at the time of the 2024 survey are provided in Appendix B.

Table 2. Crow Edge 2024 UKHab Results and BNG Progress Assessment

2024 UKHab Classification and Reference	Location	2024 Habitat Description	Baseline Habitat and Condition*	BNG Target **	Key Actions Required
<i>Upland heathland – H1b-2</i>	This area of upland heathland was located in the south of Crow Edge at grid reference of SE 18501 03972.	<p>In 2024 this area of upland heathland was found to have similar characteristics to the area of upland acid grassland (discussed in further detail below), but with a greater composition of dwarf shrub species resulting in its assignment as upland heathland rather than upland acid grassland</p> <p>Ling heather was frequent with occasional bilberry and cross leaved heath. Scattered rushes were present including soft rush and round-fruit rush (<i>Juncus compressus</i>). A variety of moss species were also present indicating the potential presence of areas of damp ground. Within this area a variety of scattered shrubs and small-sized trees were also present including Scot’s pine (<i>Pinus sylvestris</i>), willow, birch and oak species (Plate 25). Rhododendron (<i>Rhododendron ponticum</i>) was also noted within this area, with a particular prevalence noted within an area towards the south-eastern corner of this habitat block.</p> <p>This area of upland heathland was assessed as being in moderate condition.</p>	<i>Upland heathland – Condition Assessment: Moderate</i>	<i>Upland heathland – Condition Assessment: Good</i>	<p>The 2024 survey indicates positive progress towards the BNG targets for this habitat; however, further actions are required to remove undesirable species, notably rhododendron, manage tree encroachment and allow for an increase in the extent of heather and dwarf shrub in line with the management actions detailed in the Crow Edge BNG Delivery Plan.</p> <p>The management actions detailed in the Crow Edge BNG Delivery Plan will continue to be implemented and with annual monitoring offering frequent opportunities to apply adaptive management principles where required.</p>
<i>Upland heathland – H1b-3</i>	This area of upland heathland forms the main body of heathland at Crow Edge and is located on the western side of the site, located centrally around grid reference SE 18545 04326.	<p>In 2024 this area of upland heathland was dominated by ling heather with scattered trees, predominately comprising Scot’s pine present throughout (Plate 26).</p> <p>This area of upland heathland was assessed as being in good condition passing all seven habitat condition criteria.</p>	<i>Upland heathland – Condition Assessment: Moderate</i>	<i>Upland heathland – Condition Assessment: Good</i>	<p>This area of heathland was assessed as having met the BNG target of good condition.</p> <p>Management and monitoring in this area will focus on ensuring that good condition is maintained by continuing to ensure the absence of undesirable species and to manage tree encroachment to ensure that neither exceeds the maximum % set out in the heathland condition assessment criteria.</p>
<i>Upland heathland – H1b-4</i>	This area of upland heath is located on the eastern boundary of the site at grid reference SE 18738 04221. The upland heathland is located either side of a public footpath and is surrounded (within the Crow Edge site) by woodland.	<p>In 2024 this area of upland heath was assessed as being of similar composition to that of H1b-3, dominated by ling heather with scattered trees, predominately comprising Scot’s pine (Plate 27). However, within H1B-4 scrub and trees were more extensive and included the presence of the undesirable species Scotch broom (<i>Cytisus scoparius</i>).</p> <p>This area of upland heathland was assessed as being in moderate condition.</p>	<i>Upland heathland – Condition Assessment: Poor / Moderate</i>	<i>Upland heathland – Condition Assessment: Moderate / Good</i>	<p>Areas of upland heathland originally assessed as being in poor condition were proposed to be enhanced to moderate condition, something that the 2024 survey indicates has been achieved. Remaining areas of upland heathland were originally assessed as being in moderate condition with a target of progressing to moderate condition. In 2024 these areas were found to have retained but not improved their condition, in large part due to the extent of undesirable species and tree and scrub encroachment.</p> <p>Further actions are therefore required to remove undesirable species, notably rhododendron, manage tree encroachment and allow for an increase in the extent of heather and dwarf shrub in line with the management actions detailed in the Crow Edge BNG Delivery Plan. The management actions detailed in the Crow Edge BNG Delivery Plan will continue to be implemented and with annual monitoring offering frequent opportunities to apply adaptive management principles where required</p>
<i>Upland acid grassland – G1b-1</i>	A notably distinct area of upland acid grassland was present in the southern section of Crow Edge at Grid Reference SE 18373 03899.	<p>Within this area there was found to be a lack of heathland or shrub species with the vegetation instead comprising abundant hairgrass species (<i>Deschampsia spp.</i>), bent species (<i>Agrostis spp.</i>) and Yorkshire fog. Frequent soft rush, rosebay willowherb and tormentil (<i>Potentilla erecta</i>) were also recorded (Plate 28). A single, young oak tree was also noted adjacent to the eastern boundary wall.</p> <p>This area of upland acid grassland was assessed as being in moderate condition</p>	<i>Upland acid grassland – Condition Assessment: Moderate</i>	<i>Upland heathland – Condition Assessment: Good</i>	<p>To encourage the development of upland heathland into this area, deemed appropriate due to upland heathland being a priority habitat while upland acid grassland is not, a cut will be instigated to encourage the expansion of areas of upland heathland into this area. This may be supported by areas of turf stripping where monitoring deems this necessary to achieve BNG targets.</p>

2024 UKHab Classification and Reference	Location	2024 Habitat Description	Baseline Habitat and Condition*	BNG Target **	Key Actions Required
<i>Ponds (non-priority)</i> – R1-1	Located in the south-western corner of the Crow Edge site within the area of upland acid grassland.	The 2024 survey assessed the pond (non-priority) (Plate 29) as being in moderate condition with all bar three condition criteria met. Failed condition criteria related to the extent of shading being in excess of 50% due to the presence of willow scrub and the absence of water at the time of survey such that condition criteria relating to water quality and the extent of submerged or floating vegetation could not be assessed.	<i>Ponds (non-priority)</i> – Condition Assessment: Moderate	<i>Ponds (non-priority)</i> – Condition Assessment: Moderate	No specific change in condition of the <i>ponds (non-priority)</i> was proposed. The 2024 survey indicates that this habitat has been retained and continues to achieve moderate condition. Future management and monitoring will focus on ensuring that a minimum of moderate condition continues to be achieved.
<i>Other woodland; mixed</i> – W1h-1	W1h-1 relates to an area towards the southern end of Crow Edge at grid reference SE 18398 03984.	In 2024 this area of woodland was found to predominately comprise Scot's pine, with the frequent presence of birch species and rare occurrences of rowan and bramble. Rhododendron was found to be abundant within this area of woodland (Plate 30). This area of woodland was assessed as being in poor condition principally due to rhododendron cover exceeding 20%.	<i>Other woodland; mixed</i> – Condition Assessment: Fairly Poor	<i>Other woodland; mixed</i> – Condition Assessment: Fairly Good	The 2024 survey indicates a potential decrease in condition for this area of woodland from fairly poor to poor condition. This may be due to variations in the application of the 'fairly' category between the baseline and 2024 survey or due to increased presence of undesirable species which was noted to be a significant issue in this area of woodland. Future management and monitoring will focus on the eradication of undesirable species from this area of woodland, with a particular focus on the removal of rhododendron.
<i>Other woodland; mixed</i> – W1h-2	This area of other woodland; mixed was located in the north of the site along the eastern boundary at grid reference SE 18638 04371.	In 2024 this area of woodland was found to predominately comprise Scot's pine, with the frequent presence of birch species (Plate 31). No evidence of rhododendron was identified within this area of woodland. This woodland was assessed as being in moderate condition	<i>Other woodland; mixed</i> – Condition Assessment: Fairly Poor	<i>Other woodland; mixed</i> – Condition Assessment: Fairly Good	The 2024 survey indicates an improvement in the condition of this area of woodland, largely due to the effective management of undesirable species such as rhododendron. Future management and monitoring will focus on addressing other condition criteria currently being failed, in particular the current lack of deadwood. Actions will also be taken to ensure the continued absence of undesirable species.

4 Conclusions

4.1 Within Red Line Boundary

- 4.1.1 Within the red line boundary areas of retained habitat in 2024 largely reflect those anticipated to be retained with the exception of small areas of *other coniferous woodland* and *bracken*, with condition assessments illustrating the maintenance or improvement on baseline condition.
- 4.1.2 Newly created areas of grassland were found to show steady progression towards target habitats and conditions with these areas assessed as being *other neutral grassland* in moderate condition in 2024. Close monitoring of those areas intended to deliver *lowland meadow* and *other lowland acid grassland* will be required to ensure that the appropriate species composition and other distinguishing features emerge, with appropriate management activities, including re-seeding and / or plug planting, implemented where such progress is not observed between this and the next BNG monitoring report (i.e. 2029).
- 4.1.3 Areas of new tree and *mixed scrub* planting were currently assessed as being in poor condition due to their relatively recent implementation and the requirements of certain habitat classifications within version 2.0 of the Defra Biodiversity Metric (i.e. other woodland; young trees planted not being permitted a condition assessment greater than poor). However, most specimens appeared to be in good health and establishing well, with failed specimens due to be replaced as part of the final inspection of the landscape rectification period.

4.2 Crow Edge

- 4.2.1 BNG proposals at Crow Edge are focused on the enhancement of areas of *upland heathland* and *other woodland; mixed* and the expansion of the extent of *upland heathland* through the management of tree encroachment and into areas currently assessed as *upland acid grassland*.
- 4.2.2 The baseline condition of *upland heathland* was predominately moderate, with a small area assessed as being in poor condition. Following three years of habitat management interventions which to date have largely focused on the removal and management of rhododendron, a substantial proportion of the *upland heathland* area identified in 2024 has been assessed as in good condition, while remaining areas of *upland heathland* are in moderate condition. Areas of *upland heathland* are therefore considered to have achieved, or be progressing appropriately towards, the BNG targets that have been set.
- 4.2.3 It should; however, be noted that the total extent of *upland heathland* recorded at Crow Edge in 2024 is 0.54 ha less than that recorded in the baseline assessment, even after accounting for the baseline change of some upland heathland areas to upland acid grassland (see Section 2.2).
- 4.2.4 In 2024 this difference was due to an equivalent increase in the area assigned to the *other woodland; mixed* habitat category. While a degree of additional tree encroachment into areas of *upland heathland* may have occurred since the baseline was assessed this variation is considered, at least in part, to be due to how the heathland was mapped for the baseline versus 2024, namely variations in where the line was drawn between *upland heathland* with tree and scrub encroachment and woodland with some species indicative of heathland. For the purposes of the metric this has meant that 0.54 ha of *upland heathland* is considered to have been lost and 0.54 ha of *other woodland; mixed* created, despite no tree planting activities occurring. This has a negative impact on the apparent biodiversity unit uplift achieved at Crow Edge as although both habitats are considered to be of medium distinctiveness the supposedly 'created' area of *other woodland; mixed* receives negative multipliers relating to time to target condition and difficulty to create. As there is

insufficient evidence as to the accurate baseline extent of woodland or heathland habitats to be able to robustly suggest a change to the baseline (as has been advanced for some areas – see paragraphs 2.2.4 to 2.2.13) this impact in metric terms remains.

- 4.2.5 The baseline condition of woodland was fairly poor. Following three years of habitat management interventions the largest woodland block has been assessed as in moderate condition due, in large part, to the effective management of rhododendron. The remaining woodland block was assessed as being in poor condition. This indicates that a notable proportion of woodland at Crow Edge is progressing well towards BNG targets.
- 4.2.6 The change from fairly poor to poor condition assessment suggests that remaining areas of woodland may have experienced a slight decrease in condition. However, it should be noted that there are no specific criteria for a fairly poor categorisation, with the use of 'fairly' categories dependent on professional judgement. It should also be noted that since the baseline data was collected the use of 'fairly' categories has been discouraged in all bar exceptional circumstances and therefore habitats that may previously have been assessed as fairly poor are now more likely to be assessed as poor. It is therefore considered that the change from a fairly poor condition assessment to a poor condition assessment does not necessarily reflect a notable decrease in the condition of this woodland area; however, it does clearly indicate that there has been no positive movement towards BNG targets and that a review of habitat management actions in this area may be required to ensure that this progress occurs. It should be noted that the area of woodland assessed as poor condition in 2024 has been listed in the Defra Biodiversity Metric calculations as *other woodland; mixed* retained in fairly poor condition, as version 2.0 of the metric does not offer a means of including retained habitat with a reduced condition assessment unless this woodland is added as new woodland, which offers a misleading impression of what has occurred (i.e. suggesting that this is new rather than retained woodland). This would also incur additional penalties with regards to habitat creation difficulty and time to target condition, which are not relevant in this scenario.

4.3 Progress Towards BNG Targets

- 4.3.1 Based on the 2024 monitoring visit and UKHab assessment, the works within the red line boundary, coupled with habitat reinstatement and landscaping, currently result in a 12.82 habitat area unit decrease, while the habitat intervention works to date at Crow Edge have generated an uplift of 14.21 habitat area units.
- 4.3.2 The BNG status of the project overall currently sits at a 1.39 habitat unit gain, equating to a 1.53% gain. A further 7.69 habitat area units are required to achieve the minimum target of a 10% net gain.
- 4.3.3 Within the red line boundary, habitats, in particular those created as part of the reinstatement / landscaping, are expected to show improvements in condition between the 2024 monitoring visit, the next monitoring visit in 2029 and beyond, particularly in light of the relatively recent implementation of landscaping. However, the majority of the remaining biodiversity unit requirements are being targeted through continued habitat enhancement works at Crow Edge, specifically the improvement in condition of areas of *other woodland; mixed* and *upland heathland* as well as the expansion of the extent of *upland heathland* within the Crow Edge site.
- 4.3.4 Overall, while it is recognised that there are still improvements required to deliver the BNG requirements for the VIP Peak East project, it is considered that positive progress is being made and the project remains on target to achieve a minimum of 10% BNG by 2045, with the potential for an up to 18% gain to be achieved subject to progress towards target conditions.

5 Future Management and Monitoring

5.1 Within the Red Line Boundary

Management

- 5.1.1 Actions to address landscaping failures prior to completion of the rectification period are due to occur in the winter of 2024/2025 and should therefore address those saplings noted in Section 4 to be dead or in poor health.
- 5.1.2 Habitat management works within the red line boundary are currently addressed under the Landscape and Ecological Management Plan (LEMP), which runs until 2027 and comprises tree and scrub management and grass cutting to support the development of species-rich grasslands.
- 5.1.3 Prior to the conclusion of the LEMP, a HMMP will be produced to bring together the habitat management requirements within the red line boundary and those required at Crow Edge into a single document, which will form the backbone of habitat management for the remainder of the BNG period (i.e. until 2045). The management requirements of the HMMP will be reviewed on an annual basis to ensure any adaptive management amendments necessary to deliver BNG targets are addressed.

Monitoring

- 5.1.4 Monitoring of areas of landscaping within the red line boundary will be completed in line with LEMP requirements, namely visits to inspect replacement planting and identify any failures, and will be undertaken in June and October 2025, 2026, and 2027, with a final visit in June 2028.
- 5.1.5 These monitoring visits will be supported, and post June 2028 replaced by, monitoring in line with BNG requirements. BNG monitoring will consider all habitats within the red line boundary and will be undertaken in conjunction with equivalent monitoring of habitats at Crow Edge. BNG monitoring will comprise:
 - A full UKHab survey and updated Defra Biodiversity Metric assessment between June and August in years 2029, 2034, 2039 and 2044 with the results of these assessments being provided in report format to Barnsley Metropolitan Borough Council (i.e. updated versions of this report).
 - A post-BNG reporting year management works check, which will specifically consider the effectiveness of habitat management works post BNG reporting. These visits will be undertaken between January and March 2025, 2030, 2035, 2040 and 2045.
 - Annual site walkover in years between BNG reporting years to monitor progress and identify any changes in management requirements and/or approach. These visits will be undertaken between June and August in 2026, 2027, 2028, 2030, 2031, 2032, 2033, 2035, 2036, 2037, 2038, 2040, 2041, 2042 and 2043.

5.2 Crow Edge

Management

- 5.2.1 Habitat management works at Crow Edge are currently addressed under the BNG Delivery Plan, which considers the entire BNG timeframe. This plan focuses on the removal of rhododendron and management of tree encroachment to improve the condition and extent of upland heathland as well as the creation of glades and clearing within retained areas of woodland and the creation of deadwood piles to improve woodland condition.

- 5.2.2 Prior to the conclusion of the on-site LEMP, a HMMP will be produced to bring together the habitat management requirements within the red line boundary and those required at Crow Edge into a single document, which will form the backbone of habitat management for the remainder of the BNG period (i.e. until 2045). The management requirements of the HMMP will be reviewed on an annual basis to ensure any adaptive management amendments necessary to deliver BNG targets are addressed.
- 5.2.3 In light of the findings of the 2024 monitoring visit and assessment it is clear that while progress has been achieved in relation to the condition of some areas of *upland heathland* and *other woodland; mixed* condition, the extent of rhododendron and other undesirable species remains a considerable barrier to further progress, particularly within southern areas of the site. Rhododendron removal and control measures are a key aspect of the current management approach; however, in light of this continued constraint a review of the approach to rhododendron removal is recommended and will be undertaken to determine whether a more effective methodology can be applied.
- 5.2.4 It has been noted that areas of rhododendron are present outside the boundary of the Crow Edge site and therefore without actions to remove these stands, continued encroachment of rhododendron into the Crow Edge site is likely to occur. This has been raised to National Grid as a potential constraint, with the recommendation that, where appropriate, conversations occur with The Banks Group, who owns these areas, to encourage action to be taken to remove these areas of rhododendron. Without measures to remove rhododendron outside the Crow Edge site the complete eradication of rhododendron from Crow Edge is likely to be infeasible and therefore, at a minimum, management should endeavour to minimise the extent of any rhododendron such that it is limited to a discrete area of the site and remains below the threshold for invasive species within the condition criteria for woodlands, heathlands and grasslands. However, the optimal target should remain the complete eradication of rhododendron from the Crow Edge site.
- 5.2.5 The 2024 monitoring visit identified that in some areas of upland heathland, rhododendron was not the only undesirable species present, with Scotch broom also noted. Annual management requirements will therefore be updated to include the removal of Scotch broom.
- 5.2.6 As indicated by the changes in *upland heathland* and *other woodland; mixed* the extent of tree encroachment remains an issue. While actions to manage areas of early tree encroachment were undertaken in 2022 and 2023, the extent of woodland identified during the 2024 monitoring visit indicates that more intensive measures are required to manage woodland encroachment into areas of heathland and to open up more areas to heathland colonisation. The management requirements between 2024 and the next monitoring report in 2029 will therefore be reviewed to ensure sufficient actions are taken on this front to deliver a noticeable improvement for the next BNG monitoring report.
- 5.2.7 To date, no management activities have been undertaken in the area of *upland acid grassland*, and so a review will be undertaken to consider implementation of a cutting regime to encourage increased species diversity and provide the opportunity for ling heather and other dwarf heath shrubs to colonise

Monitoring

- 5.2.8 BNG monitoring at Crow Edge will be undertaken in conjunction with the equivalent monitoring of habitats within the red line boundary. The composition of this monitoring is detailed in the three bullet points provided after paragraph 5.1.5 above.

References

- Crosher, I., Gold, S., Heaven, M., Heydon, M., Moore, L., Panks, S., Scott, S., Stone, D and White N. 2019. The Biodiversity Metric 2.0: Auditing and Accounting for Biodiversity Value: Technical Supplement (Beta version, July 2019). Natural England.
- Panks, S., and Arthur, S. 2019. The Biodiversity Metric 2.0. Auditing and Accounting for Biodiversity Calculation Tool (Beta Test). Natural England and FPCR.

Appendix A – Figures

Figure 1. VIP Peak East On-Site and Crow Edge Site Boundaries

Figure 2. 2024 Areas not Surveyed due to Access Restrictions

Figure 3. 2024 UKHab Survey Results VIP Peak East On-Site

Figure 4. 2024 UKHab Survey Results VIP Peak East Crow Edge

Appendix B – Site Photographs

On site

Plate 1. Developed land; sealed surface area U1b-1



Plate 2. Developed land; sealed surface area U1b-2



Plate 3. Developed land; sealed surface area U1b-3



Plate 4. Developed land; sealed surface U1b-4



Plate 5. Artificial vegetated; unsealed surface area U1c-1



Plate 6. Artificial vegetated; unsealed surface area U1c-2



Plate 7. Artificial vegetated; unsealed surface area U1c-3



Plate 8. Other neutral grassland area G3c-1



Plate 9. Other neutral grassland area G3c-2



Plate 10. Other neutral grassland area G3c-3



Plate 11. Other neutral grassland area G3c-4



Plate 12. Other woodland; broadleaved area Wig-1



Plate 13. Other woodland, broadleaved area W1g-2



Plate 14. Other woodland; broadleaved area W1g-3



Plate 15. Mixed scrub area H3h-1



Plate 16. Mixed scrub area H3h-2



Plate 17. Mixed scrub – example of new mixed scrub planting areas



Plate 18. Upland heathland area H1b-1



Plate 19. Modified grassland area G4-1 Photo a

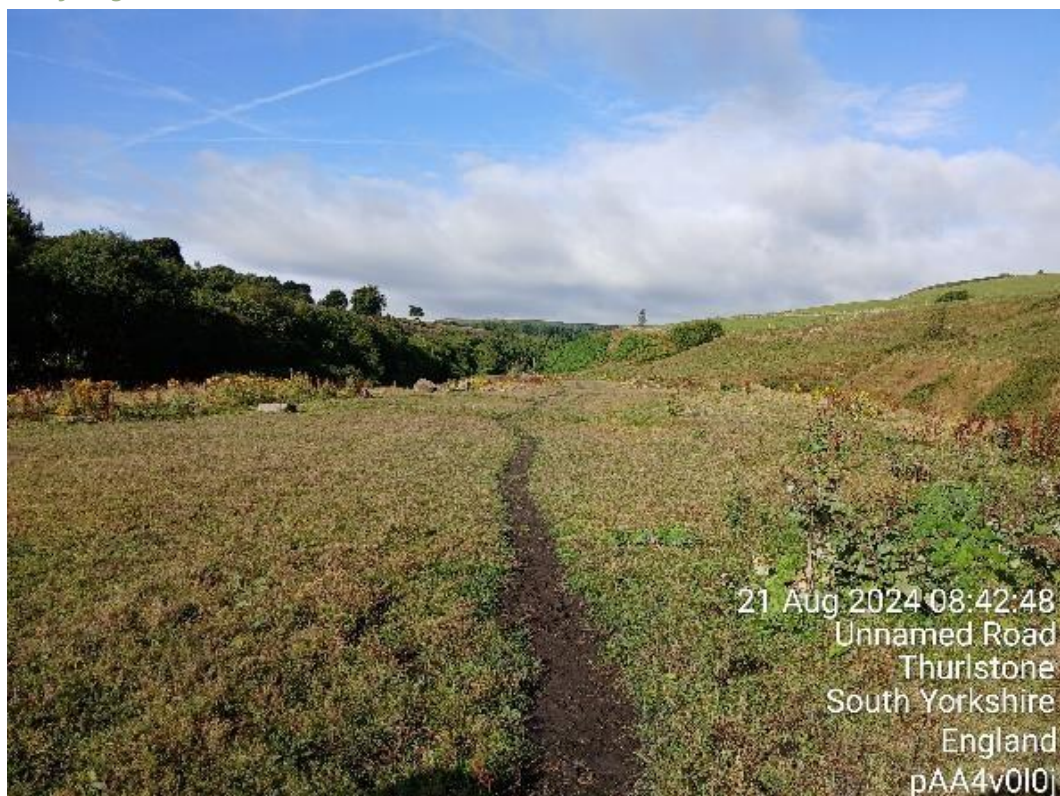


Plate 20. Modified grassland area G4-1 Photo b



Plate 21. Sparsely vegetated land – ruderal ephemeral – Trans Pennine Trail car park



Plate 22. Sparsely vegetated land – ruderal ephemeral – Dunford Bridge Substation



Plate 23. Sparsely vegetated land – ruderal ephemeral – New substation at Wogden Foot LWS



Plate 24. Other woodland; young trees planted – example of new tree planting areas



Crow Edge

Plate 25. Upland heathland area H1b-2



Plate 26. Upland heathland area H1b-3



Plate 27. Upland heathland area H1b-4



Plate 28. Upland acid grassland area G1b-1



Plate 29. Pond (non-priority) area R1-1



Plate 30. Other woodland; mixed area W1h-1



Plate 31. Other woodland; mixed area W1h-2



Appendix C – Biodiversity Metric and Condition Assessments

See Defra Biodiversity Metric version 2.0 spreadsheet provided with this report for details of the Defra Biodiversity Metric calculations.

Within the Red Line Boundary

Other Neutral Grassland					
Condition Assessment Criteria		G3c-1	G3c-2	G3c-3	G3c-4
1. The area is clearly and easily recognisable as a good example of this type of habitat and there is little different between what is described in the relevant habitat classifications and what is visible on site		✓	✓	✓	✓
2. The appearance and composition of the vegetation on site should very closely match the characteristics for the specific Priority Habitat [i.e. as described by either the Phase 1 Habitat Classification or the UK Habitat Classification], with species typical of the habitat representing a significant majority of the vegetation.		x	x	x	x
3. Wildflowers, sedges and indicator species for the specific Priority grassland habitat are very clearly and easily visible throughout the sward and occur at high densities in high frequency.		x	x	x	x
4. Undesirable species and physical damage is below 5% cover		✓	✓	✓	✓
5. Cover of bare ground greater than 10% (including localised areas, for example rabbit warrens)		✓	✓	✓	✓
6. Cover of bracken less than 20% and cover of scrub and bramble less than 5%		✓	✓	✓	✓
Condition Assessment Criteria		G3c-1	G3c-2	G3c-3	G3c-4
Good	<p>Species-rich grasslands of all Priority Habitat types, of high to moderate quality</p> <p>Wildflower and sedges above 30% excluding white clover (<i>Trifolium repens</i>), creeping buttercup (<i>Ranunculus repens</i>) and injurious weeds</p> <p>Meets all the condition criteria with only minor variation</p> <p>None of the indicators of poor condition are present (4, 5 & 6)</p>				
Moderate	<p>Semi-improved grassland occurs on a wide range of soils and may be derived from higher quality Priority Habitat grassland habitats in poor condition. Often as they deteriorate following nutrient inputs. Typical grasses include cock's-foot (<i>Dactylis glomerata</i>), common bent (<i>Agrostis capillaris</i>), creeping bent (<i>Agrostis stolonifera</i>), crested dog's-tail, false oat-grass (<i>Arrhenatherum elatius</i>), meadow fescue (<i>Festuca pratensis</i>), meadow foxtail (<i>Alopecurus pratensis</i>), red fescue (<i>Festuca rubra</i>), sweet vernal grass (<i>Anthoxanthum odoratum</i>), Timothy (<i>Phleum pratense</i>), tufted hair-grass (<i>Deschampsia cespitosa</i>) and Yorkshire fog.</p> <p>Total cover of wildflowers and sedges less than 30%, excluding white clover, creeping buttercup and injurious weeds</p>	✓	✓	✓	✓

Other Neutral Grassland					
	<p>Rye-grass (<i>Lolium</i> spp.) cover is less than 25% including amenity grasslands</p> <p>OR clearly fails at least 1 of the condition criteria</p> <p>OR the grassland type has some differences between what is described in the relevant habitat classification and what is visible on site. It is a Low Quality Priority Habitat, but clearly recognisable as such.</p> <p>Potentially restorable to grassland Priority Habitat with improved management</p> <p>Cover of undesirable species at 5 – 15%</p>				
Poor	<p>Agricultural grasslands is characterised by vegetation dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by an abundance of rye-grass (above 25% cover) and white clover. These grasslands are typically either managed as pasture or mown regularly for silage production or in non-agricultural contexts for recreation and amenity purposes; they are often periodically re-sown and are maintained by fertiliser treatment and weed control. They may also be temporary and sown as part of the rotation of arable crops but they are only included in this broad habitat type if they are more than one year old.</p> <p>Amenity and road verge grasslands with similar species to description for agricultural grasslands</p> <p>OR most of the condition criteria are being failed</p> <p>Cover of undesirable species above 15%, usually resulting in a dense scrub or tree cover, or high cover of exotic species.</p>				

Other woodland; broadleaved				
Condition Assessment Criteria		W1g-1	W1g-2	W1g-3
1. There should be an area of trees with complete canopy cover		✓	✓	✓
2. Native species are dominant. Non-native and invasive species account for less than 10% of the vegetation cover		✓	✓	✓
3. A diverse age and height structure of the trees		x	x	✓
4. Free from damage (bark stripping, browse line, damaged shoot tips) in the last five years from stock or wild mammals with less than 20% of vegetation being browsed.		✓	✓	✓
5. There should be evidence of successful tree regeneration such as seedlings, saplings and young trees		✓	✓	✓
6. Standing and fallen dead wood of over 20 cm diameter are present including fallen large dead branches/stems and stumps		x	x	✓
7. Wetland habitat if they exist within the wood has little sign of drainage or channel straightening		N/A	N/A	N/A
8. The area is protected from damage by agricultural and other adjacent operations		✓	✓	✓
9. There should be no evidence of inappropriate management (e.g. deep ruts, animal poaching or compaction)		✓	✓	✓
10. Invasive non-native plants are below 5%		✓	✓	✓
11. No signs of significant nutrient enrichment present		✓	✓	✓
12. More than 3 different native trees and 3 shrub species in an average 10m radius		✓	✓	✓
Condition	Assessment Criteria	W1g-1	W1g-2	W1g-3
Good	Meets at least 10 of the criteria with only minor variation No more than 1 of the indicators of poor condition are present Stands of native trees that do not obviously originate from planting should be classified as native semi-natural woodland			✓
Moderate	Clearly fails at least 2 of the criteria above OR invasive non-native plants are 5-20% OR where non-native species comprise more than 20% of the canopy, the woodland should be recorded as either non-native plantation or mixed woodland A mixed woodland is woodland with native and non-native species (This includes woodlands established by planting and by natural regeneration)	✓	✓	

Other woodland; broadleaved				
	Trees of similar age and height structure throughout the woodland Little standing or fallen deadwood present.			
Poor	<p>The following characteristics can help to identify plantations</p> <ul style="list-style-type: none"> ▪ Non-native trees often of a single species or the same age are the dominant component ▪ OR invasive non-native plants are greater than 20% ▪ Mixed species show a consistent planting pattern across the site ▪ Original planting lines, or remains of planting lines, can be seen ▪ Drainage feature and channel straightening of watercourses. 			

Mixed Scrub				
Condition Assessment Criteria		H3h-1	H3h-2	New
1. 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 100% cover).		✓	✓	✓
2. There is a good age range – a mixture of seedlings, saplings, young shrubs and mature shrubs		✓	✓	✗
3. Pernicious weeds and invasive species make up less than 5% of the ground cover		✓	✓	✓
4. The scrub has a well-developed edge with un-grazed tall herbs		✓	✓	✗
5. There are many clearings and glades within the scrub		✗	✓	✗
Condition	Assessment Criteria	H3h-1	H3h-2	New
Good	Meets all of the five criteria with only minor variation Scrub type of high biodiversity value in good condition None of the indicators of poor condition are present		✓	
Moderate	The single woody species cover is greater than 75% The age range is missing some size classes Scrub type of high biodiversity value in poor condition The scrub type has minor differences between what is described in the relevant habitat classifications and what is visible on site Cover of undesirable and invasive species at 5 – 20%	✓		
Poor	The single woody species cover is greater than 75% The age range is missing some size classes Scrub type of high biodiversity value in poor condition The scrub type has minor differences between what is described in the relevant habitat classifications and what is visible on site Cover of undesirable and invasive species at 5 – 20% Single-age scrub present Potentially restorable to improved scrub habitat with improved management All the condition criteria are being failed The scrub type has major differences between what is described in the relevant habitat classifications and what is visible on site Cover of undesirable and invasive species above 20% All rhododendron stands will be in this condition			✓

Upland Heathland		
Condition Assessment Criteria		H1b-1
1.	Cover of dwarf shrubs at least 50% for dry heath or between 25% and 75% for wet heath, with at least two dwarf shrub species frequent	✓
2.	There should be a range of age classes of heather present, with cover of young (pioneer stage) heather between 10% and 15% and cover of old (late-mature / degenerate stages) between 10% and 30%	✓
3.	No signs of burning or cutting of 'sensitive areas'	✓
4.	No more than 33% of heather shoots should be grazed (when assessed between February and April), or flowering heather plants are at least frequent in autumn	✓
5.	Cover of undesirable species (injurious weeds and invasive non-native plants) should be less than 5%	✓
6.	Cover of trees and / or scrub should be less than 15%	✓
7.	Physical damage to the vegetation from: excessive poaching, damage from machinery use or storage, or any other damaging management or public access activities	✓
Condition Assessment Criteria		H1b-1
Good	Meets criteria 1 & 2 Meets at least 6 of the criteria with only minor variation Heather is flowering extensively Only 1 minor fail of the indicators of poor condition (3,4,5,6 &7)	✓
Moderate	Heather and dwarf shrub cover is between 25% and 50% on dry heaths or between 10% - 50% on wet heaths OR meets criteria 1 but fails at least 2 or 3 of the condition criteria The heathland type has minor differences between what is described in the relevant habitat classifications and what is visible on site OR cover of undesirable species at 5% to 20%	
Poor	Meets criteria 1 but at least 4 condition criteria are being failed Heather and dwarf shrub cover is below 25% but still frequent through the area (Fragmented Heathland)	

Modified Grassland		
Condition Assessment Criteria		G4-1
1. The area is clearly and easily recognisable as a good example of this type of habitat and there is little different between what is described in the relevant habitat classifications and what is visible on site		x
2. The appearance and composition of the vegetation on site should very closely match the characteristics for the specific Priority Habitat [i.e. as described by either the Phase 1 Habitat Classification or the UK Habitat Classification], with species typical of the habitat representing a significant majority of the vegetation.		x
3. Wildflowers, sedges and indicator species for the specific Priority grassland habitat are very clearly and easily visible throughout the sward and occur at high densities in high frequency.		x
4. Undesirable species and physical damage is below 5% cover		x
5. Cover of bare ground greater than 10% (including localised areas, for example rabbit warrens)		x
6. Cover of bracken less than 20% and cover of scrub and bramble less than 5%		✓
Condition Assessment Criteria		G3c-1
Good	<p>Species-rich grasslands of all Priority Habitat types, of high to moderate quality</p> <p>Wildflower and sedges above 30% excluding white clover (<i>Trifolium repens</i>), creeping buttercup (<i>Ranunculus repens</i>) and injurious weeds</p> <p>Meets all the condition criteria with only minor variation</p> <p>None of the indicators of poor condition are present (4, 5 & 6)</p>	
Moderate	<p>Semi-improved grassland occurs on a wide range of soils and may be derived from higher quality Priority Habitat grassland habitats in poor condition. Often as they deteriorate following nutrient inputs. Typical grasses include cock's-foot, common bent, creeping bent, crested dog's-tail, false oat-grass, meadow fescue, meadow foxtail, red fescue, sweet vernal grass, Timothy, tufted hair-grass and Yorkshire fog.</p> <p>Total cover of wildflowers and sedges less than 30%, excluding white clover, creeping buttercup and injurious weeds</p> <p>Rye-grass (<i>Lolium</i> spp.) cover is less than 25% including amenity grasslands</p> <p>OR clearly fails at least 1 of the condition criteria</p> <p>OR the grassland type has some differences between what is described in the relevant habitat classification and what is visible on site. It is a Low Quality Priority Habitat, but clearly recognisable as such.</p> <p>Potentially restorable to grassland Priority Habitat with improved management</p> <p>Cover of undesirable species at 5 – 15%</p>	
Poor	<p>Agricultural grasslands is characterised by vegetation dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by an abundance of rye-grass (above 25% cover) and white clover. These grasslands are typically either managed as pasture or mown regularly for silage production or in non-agricultural contexts for recreation and amenity purposes; they are often periodically re-sown and are maintained by fertiliser treatment and weed control. They may also be temporary and sown as part of</p>	

the rotation of arable crops but they are only included in this broad habitat type if they are more than one year old.

✓

Amenity and road verge grasslands with similar species to description for agricultural grasslands

OR most of the condition criteria are being failed

Cover of undesirable species above 15%, usually resulting in a dense scrub or tree cover, or high cover of exotic species.

Sparsely Vegetated – Ruderal / Ephemeral

Condition Assessment Criteria

1. Known history of disturbance at the site or evidence that soil has been removed or severely modified by previous use(s) of the site. Extraneous materials / substrates such as industrial spoil may have been added which in turn has led to a low nutrient environment	✓
2. The site contains some vegetation. This will comprise of early successional communities consisting mainly of stress-tolerant species (e.g. indicative of low nutrient status or drought). Early successional communities are composed of a) annuals, or b) mosses / liverworts, or c) lichens, or d) ruderals, or e) inundation species, or e) open grassland, or g) flower-rich grassland, or h) heathland.	✓
3. The site contains unvegetated, loose bare substrate and pools may be present and desirable	×
4. The site shows spatial variation, forming a mosaic of one or more of the early successional communities (a-h above) plus bare substrate or pools.	×

Condition Assessment Criteria

Good	<p>Vegetation provides multiple opportunities for a high number of species to live and breed (complete their life cycles)</p> <p>Bare open ground is common throughout the area</p> <p>Plant species are flowering extensively and so providing ready nectar sources for insects</p> <p>Insects and butterflies are common and using the site extensively</p> <p>None of the indicators of poor condition are present</p> <p>The invasive non-native species are low or absent from the site, or in the process of being eradicated if beneficial to wildlife to do so.</p>	
Moderate	<p>Cover of undesirable and invasive species at 10 – 20%</p> <p>OR some of the condition criteria are being failed</p> <p>The areas of bare ground with little species colonisation are large, with a high potential for improvement with better wildlife management</p>	
Poor	<p>Most of the condition criteria are being failed</p> <p>Cover of undesirable species high, above 20%</p>	✓

Crow Edge Condition Assessments

Upland Heathland				
Condition Assessment Criteria		H1b-2	H1b-3	H1b-4
1. Cover of dwarf shrubs at least 50% for dry heath or between 25% and 75% for wet heath, with at least two dwarf shrub species frequent		×	✓	✓
2. There should be a range of age classes of heather present, with cover of young (pioneer stage) heather between 10% and 15% and cover of old (late-mature / degenerate stages) between 10% and 30%		✓	✓	✓
3. No signs of burning or cutting of 'sensitive areas'		✓	✓	✓
4. No more than 33% of heather shoots should be grazed (when assessed between February and April), or flowering heather plants are at least frequent in autumn		✓	✓	✓
5. Cover of undesirable species (injurious weeds and invasive non-native plants) should be less than 5%		×	✓	×
6. Cover of trees and / or scrub should be less than 15%		✓	✓	×
7. Physical damage to the vegetation from: excessive poaching, damage from machinery use or storage, or any other damaging management or public access activities		✓	✓	✓
Condition Assessment Criteria		H1b-2	H1b-3	H1b-4
Good	Meets criteria 1 & 2 Meets at least 6 of the criteria with only minor variation Heather is flowering extensively Only 1 minor fail of the indicators of poor condition (3,4,5,6 & 7)		✓	
Moderate	Heather and dwarf shrub cover is between 25% and 50% on dry heaths or between 10% - 50% on wet heaths OR meets criteria 1 but fails at least 2 or 3 of the condition criteria The heathland type has minor differences between what is described in the relevant habitat classifications and what is visible on site OR cover of undesirable species at 5% to 20%	✓		✓
Poor	Meets criteria 1 but at least 4 condition criteria are being failed Heather and dwarf shrub cover is below 25% but still frequent through the area (Fragmented Heathland)			

Upland Acid Grassland		
Condition Assessment Criteria		G1b-1
1.	The area is clearly and easily recognisable as a good example of this type of habitat and there is little different between what is described in the relevant habitat classifications and what is visible on site	x
2.	The appearance and composition of the vegetation on site should very closely match the characteristics for the specific Priority Habitat [i.e. as described by either the Phase 1 Habitat Classification or the UK Habitat Classification], with species typical of the habitat representing a significant majority of the vegetation.	x
3.	Wildflowers, sedges and indicator species for the specific Priority grassland habitat are very clearly and easily visible throughout the sward and occur at high densities in high frequency.	x
4.	Undesirable species and physical damage is below 5% cover	✓
5.	Cover of bare ground greater than 10% (including localised areas, for example rabbit warrens)	x
6.	Cover of bracken less than 20% and cover of scrub and bramble less than 5%	✓
Condition Assessment Criteria		G1b-1
Good	<p>Species-rich grasslands of all Priority Habitat types, of high to moderate quality</p> <p>Wildflower and sedges above 30% excluding white clover (<i>Trifolium repens</i>), creeping buttercup (<i>Ranunculus repens</i>) and injurious weeds</p> <p>Meets all the condition criteria with only minor variation</p> <p>None of the indicators of poor condition are present (4, 5 & 6)</p>	
Moderate	<p>Semi-improved grassland occurs on a wide range of soils and may be derived from higher quality Priority Habitat grassland habitats in poor condition. Often as they deteriorate following nutrient inputs. Typical grasses include cock's-foot, common bent, creeping bent, crested dog's-tail, false oat-grass, meadow fescue, meadow foxtail, red fescue, sweet vernal grass, Timothy, tufted hair-grass and Yorkshire fog.</p> <p>Total cover of wildflowers and sedges less than 30%, excluding white clover, creeping buttercup and injurious weeds</p> <p>Rye-grass (<i>Lolium</i> spp.) cover is less than 25% including amenity grasslands</p> <p>OR clearly fails at least 1 of the condition criteria</p> <p>OR the grassland type has some differences between what is described in the relevant habitat classification and what is visible on site. It is a Low Quality Priority Habitat, but clearly recognisable as such.</p> <p>Potentially restorable to grassland Priority Habitat with improved management</p> <p>Cover of undesirable species at 5 – 15%</p>	✓
Poor	Agricultural grasslands is characterised by vegetation dominated by a few fast-growing grasses on fertile, neutral soils. It is frequently characterised by an abundance of rye-grass (above 25% cover) and white clover. These grasslands are typically either managed as pasture or mown regularly for silage production or in non-agricultural contexts for recreation and amenity purposes; they are often periodically	

Upland Acid Grassland

re-sown and are maintained by fertiliser treatment and weed control. They may also be temporary and sown as part of the rotation of arable crops but they are only included in this broad habitat type if they are more than one year old.

Amenity and road verge grasslands with similar species to description for agricultural grasslands

OR most of the condition criteria are being failed

Cover of undesirable species above 15%, usually resulting in a dense scrub or tree cover, or high cover of exotic species.

Pond (non-priority)		
Condition Assessment Criteria		R1-1
1.	Are of good water quality, with clear water (substrate can be seen) and no obvious sign of pollution in the water body	x
2.	The water body should have semi-natural riparian land for at least 10m from the pond edge	✓
3.	Non-woodland ponds should be dominated by plants, be they submerged or floating (note dominance of duckweed is a sign of eutrophication).	x
4.	Non-woodland ponds should not be shaded more than 50%	x
5.	Many ponds will be fishless, those which naturally contain fish should not be stocked and should contain a native fish assemblage	✓
6.	Ponds should not be artificially connected to other water bodies e.g. ditches	✓
7.	Pond water levels should be able to fluctuate naturally throughout the year	✓
8.	Non-native species should be absent	✓
9.	Less than 10% of the pond should be covered with duckweed or filamentous algae	✓
Condition Assessment Criteria		R1-1
Good	Meets the majority of the criteria with only minor variation Few of the indicators of poor condition are present	
Moderate	Fails a number of the criteria above Where non-native species comprise more than 10% of the vegetation There is only moderate water quality There is insufficient extent of semi-natural riparian land Water levels are subject to some control There are some artificial connections to other water bodies, but they are not delivering water of poor water quality or preventing water fluctuations Fish have been stocked at a low density, but they are native species and there is sufficient aquatic plants and habitat heterogeneity to reduce the effects of predation Moderate shading of non-woodland ponds Submerged and floating plants are limited but still present	✓
Poor	Ponds in poor health Fails the majority of criteria Poor water quality present	

Other woodland; mixed			
Condition Assessment Criteria		W1h-1	W1h-2
1. There should be an area of trees with complete canopy cover		✓	✓
2. Native species are dominant. Non-native and invasive species account for less than 10% of the vegetation cover		✗	✓
3. A diverse age and height structure of the trees		✓	✓
4. Free from damage (bark stripping, browse line, damaged shoot tips) in the last five years from stock or wild mammals with less than 20% of vegetation being browsed.		✓	✓
5. There should be evidence of successful tree regeneration such as seedlings, saplings and young trees		✓	✓
6. Standing and fallen dead wood of over 20 cm diameter are present including fallen large dead branches/stems and stumps		✗	✗
7. Wetland habitat if they exist within the wood has little sign of drainage or channel straightening		✓	✓
8. The area is protected from damage by agricultural and other adjacent operations		✓	✓
9. There should be no evidence of inappropriate management (e.g. deep ruts, animal poaching or compaction)		✓	✓
10. Invasive non-native plants are below 5%		✗	✓
11. No signs of significant nutrient enrichment present		✓	✓
12. More than 3 different native trees and 3 shrub species in an average 10m radius		✗	✗
Condition	Assessment Criteria	W1h-1	W1h-2
Good	<p>Meets at least 10 of the criteria with only minor variation</p> <p>No more than 1 of the indicators of poor condition are present</p> <p>Stands of native trees that do not obviously originate from planting should be classified as native semi-natural woodland</p>		
Moderate	<p>Clearly fails at least 2 of the criteria above</p> <p>OR invasive non-native plants are 5-20%</p> <p>OR where non-native species comprise more than 20% of the canopy, the woodland should be recorded as either non-native plantation or mixed woodland</p> <p>A mixed woodland is woodland with native and non-native species (This includes woodlands established by planting and by natural regeneration)</p> <p>Trees of similar age and height structure throughout the woodland</p> <p>Little standing or fallen deadwood present.</p>		✓

Other woodland; mixed			
Poor	<p>The following characteristics can help to identify plantations</p> <ul style="list-style-type: none"> ▪ Non-native trees often of a single species or the same age are the dominant component ▪ OR invasive non-native plants are greater than 20% ▪ Mixed species show a consistent planting pattern across the site ▪ Original planting lines, or remains of planting lines, can be seen ▪ Drainage feature and channel straightening of watercourses. 	✓	