



**PRELIMINARY ECOLOGICAL APPRAISAL  
AND IMPACT ASSESSMENT**

**LAND AT DAM HEAD, HOLMBRIDGE,  
HOLMFIRTH, WEST YORKSHIRE**

**DECEMBER 2023**

# Preliminary Ecological Appraisal and Impact Assessment

## Land at Dam Head, Holmbridge, Holmfirth, West Yorkshire

*A report for*

**Northern Design Partnerships (Oldham)**

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*On behalf of their client*

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*Report by*



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## 2. METHODOLOGY

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### 2.1 DESK SURVEY

A full data search from West Yorkshire Ecology Service (WYES) was provided on the 24/11/2023. The search included designated site and protected and notable species records within 2km of the survey area.

The Multi Agency Geographical Information Centre [www.magic.gov.uk](http://www.magic.gov.uk) was also referred to in respect of statutory sites, GCN licence returns, and European Protected Species Licences issued in respect of GCN and bats.

It should be noted that species records over 500m of the site are not reproduced here as they are considered to have no association with the site and are beyond the sphere of influence for these proposals.

### 2.2 HABITAT SURVEY

A UK Habitat Classification (UKHabs) survey (UKHab Ltd, 2020) of the habitats within the red line boundary was undertaken on 21/11/2023. The site's habitats were mapped, and vascular plant species were recorded and given a DAFOR ((Dominant (D), Abundant (A), Frequent (F), Occasional (O), Rare (R)) score. Each habitat was given a distinctiveness and habitat condition score (Natural England, 2023). Secondary codes have been applied where required to describe the primary habitats. Habitats have been mapped using the fine-scale minimum mapping unit.

### 2.3 PROTECTED SPECIES SURVEYS

#### 2.3.1 Badger Survey

A badger survey was undertaken of the site and up to 50m from the site boundary (where access permitted) and followed standard survey guidance (Harris et al., 1989, and Roper, 2010). The badger survey used standard techniques for establishing the use of the site by badger, and includes searches for evidence of badgers including:

- Setts.
- Pathways.
- Footprints.
- Latrines.
- Foraging areas.
- Scratching posts.
- Boundary searches for runs, pathways, and latrines.

#### 2.3.2 Preliminary Bat Roost Assessment

There are no buildings on site. There is one small cherry tree which was subject to a ground level tree assessment, undertaken following the methodology outlined in Bat Conservation Trust: Bat Surveys for Professional Ecologists, Good Practice Guidelines (2023).

An assessment of the habitat in relation to bats was completed for the site.

#### 2.3.3 Breeding Bird Assessment

The site was assessed for its potential to support breeding birds. This included identifying any evidence of historic nesting within the site.

Any bird activity within the site was recorded whilst undertaking the site survey.

### 2.3.4 Great Crested Newt Assessment

The site was evaluated by means of desk study and the surveyor's specialist knowledge of the species, in particular its terrestrial habits and breeding requirements. In addition, ponds within 250m of the site were subject to a Habitat Suitability Index (HSI) assessment.

The index applies ten suitability indices which are multiplied together to produce a score for each pond (Oldham et al, 2000). Based on the score a pond suitability for supporting GCN is applied to each pond (see Table 2.1 below).

**Note:** *The HSI system is not sufficiently precise to conclude that any particular pond with a high score will support newts, or that any pond with a low score will not support newts.*

Table 2.1: HSI scores

HSI Score	Pond Suitability
< 0.5	Poor
0.5 – 0.59	Below Average
0.6 – 0.69	Average
0.7 – 0.79	Good
> 0.8	Excellent

## 2.4 SURVEY CONSTRAINTS

The site survey was conducted on 21/11/2023. Whilst it is acknowledged that the surveys have been undertaken outside of the optimal survey window for habitats, a detailed species list was collected for all habitats which enabled accurate habitat categorisations and condition assessments.

There are considered to be no limitations to the evaluations and recommendations provided within this report.

### 3. RESULTS

#### 3.1 DESK STUDY

A summary of the desk study records provided by WYES is provided in Table 3.1 below. The full data set is available upon request.

Table 3.1: Summary of Desk Study Data

Table 1: Desk Study Data:	
<b>Statutory Sites:</b>	
<b>On site:</b>	<b>Off site:</b>
None.	<p><u>Within 500m:</u> None</p> <p><u>Within 1km:</u> None</p> <p><u>Within 2km:</u></p> <p><b>Dark Peak SSSI</b> – Located 1.85km south. Designated primarily for the blanket peat habitats and supporting protected fauna and flora.</p> <p>Rake Dike SSSI is Located 1.9km south-west but designated for geological interests only.</p>
<b>Non-Statutory Sites:</b>	
<b>On site:</b>	<b>Off site:</b>
None.	<p><u>Within 500m:</u></p> <p><b>Malkin House Wood LWS</b> - Located 460m east of the survey area. The site contains good examples of the W10 and W16 acid woodland communities, with few non-native species, and a good range of quality flora indicator species.</p>
<b>Protected Species:</b>	
<b>On site:</b>	<b>Off site:</b>
None.	<p><u>Within 500m:</u></p> <p>6 bat records including 1 roost (located 500m from site). Pipistrelle, noctule and myotis species.</p> <p>Bat roost identified at Hinchcliffe Mill in 2020 as part of the development to convert former mill into dwellings<sup>1</sup>.</p>

<sup>1</sup> Whitcher Wildlife Consultants (2020) *Extended Phase 1 Habitat Survey Report* (Ref: 200829).

	<p>No bird records within 500m (nearest 1.9km away). All records are at least 9 years old.</p> <p>No amphibian records within 500m. Nearest record 1.9km away (common toad).</p> <p>No terrestrial mammal records (badger, otter, water vole) within 500m.</p>
<b>Notable Species:</b>	
<b>On site:</b>	<b>Off site:</b>
None.	<p><u>Within 500m:</u></p> <p>Six invertebrate records of six species, 311m from the site; Broom Moth, Buff Ermine, Dark-barred Twin-spot Carpet, Dusky Brocade, Knot Grass, White Ermine.</p>

## 3.2 HABITAT SURVEY

### 3.2.1 Habitats Present

- g3c8 Holcus-Juncus neutral grassland
- h3d Bramble scrub
- h3h Mixed scrub
- N/a Individual trees

### 3.2.2 General Description

The site is small field parcel positioned in between a row of houses along Dam Head. The site is approximately 34m x 75m. The field has a steep gradient leading uphill as you move south / away from Dam head. The field has been unmanaged for over 5 years and subsequently has become rank and comprises a mosaic of neutral grassland and mixed scrub.

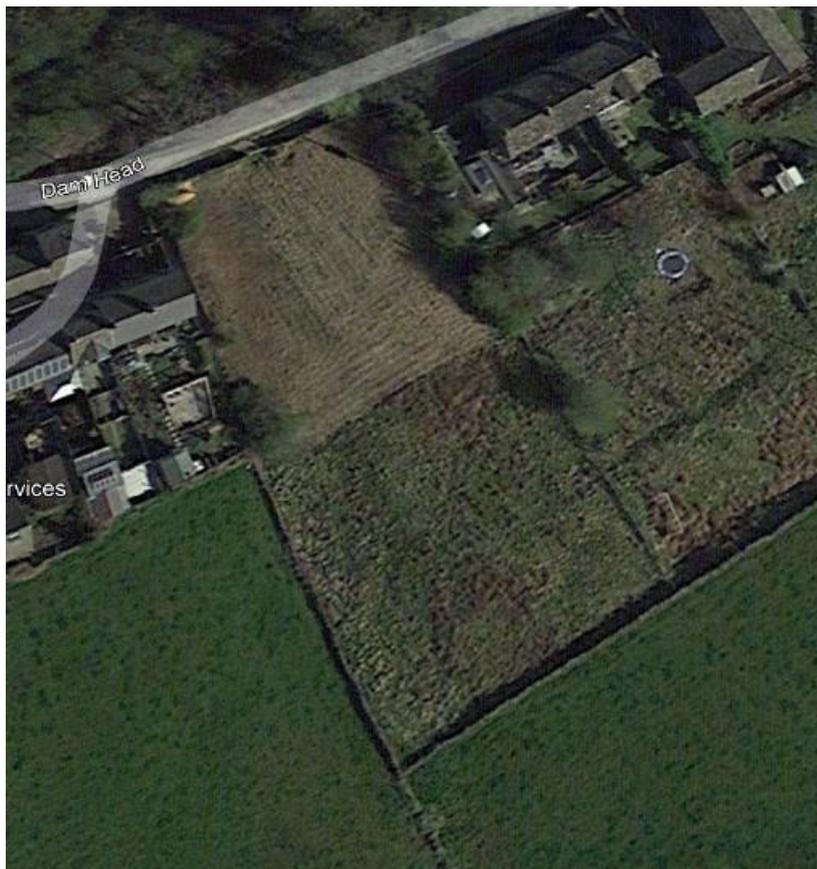
#### (i) Target Note 1 (1a and 1b): g3c8 Holcus-Juncus neutral grassland

The majority of the site comprises a rank, unmanaged grassland which largely reflects a Yorkshire fog – soft rush pasture. The grassland is species poor and dominated by several species. The site has been subject to varying levels of management over the years and this can be seen within the species composition across the grassland area.

Target note 1a covers an area of neutral grassland that is situated on a steep bank and was formerly used to graze horses on (see Figure 3.1 below). This area has been subject to some form of management in more recent times compared with Target Note 1b. As such there is a greater abundance of grass species (e.g. common bent, Yorkshire fog, Cock's-foot) and less coverage of soft rush.

Target Note 1b covers a poorly drained area of grassland that has not been subject to any recent management. Subsequently there is a greater abundance of soft rush.

Figure 3.1: Image showing historic management of site



Species regularly recorded within the grassland (Target note 1a and 1b) include:

Yorkshire fog (A), common bent (A), soft rush (LD), cock's-foot (LA), creeping buttercup (LA), creeping thistle (A), broad-leaved dock (F), common sorrel (LF), false oat-grass (LF), ribwort plantain (F), sphagnum mosses (F), common nettle (LF), cuckoo flower (LO), ragwort (R), Lady's mantle (R).

The grassland is assessed as being in Moderate habitat condition.

### (ii) Target Note 2: h3h Mixed scrub

Along the north east corner of the site is a section of mixed scrub habitat. The scrub is encroaching into the grassland as a result of a lack of management. There is a varied age / height and species mix associated with the scrub. Saplings are forming within the field. Species recorded within the scrub include:

Sessile oak (LA), blackthorn (LA), bramble (LF), willow species (F), hazel (F), holly (O), and Japanese rose (O)<sup>2</sup>.

The mixed scrub habitat is assessed as being in Poor habitat condition.

There is an area of bramble scrub along the western boundary of the site.

<sup>2</sup> Japanese rose is listed as an invasive plant species under Schedule 9 to the Wildlife and Country-side Act 1981 with respect to England and Wales.

### 3.3 PROTECTED SPECIES SURVEYS

#### 3.3.1 Badger Survey

##### (i) Setts

The survey found no setts on site or within 50m of the site.

##### (i) Foraging Signs and Pathways

No sign of badger activity was found on site or within 50m of the site. Therefore it can be concluded that the species is not using this area for foraging or commuting.

##### (ii) Boundary Search

All of the boundaries of the site were walked and examined for potential runs, pathways, and latrines. The search found no evidence to suggest badger activity along any of the site boundaries.

The absence of any activity signs indicates that badgers are not entering the site. The absence of latrines indicates a lack of territorial activity in the near vicinity of the site.

#### 3.3.2 Bat Survey

##### (i) Preliminary Roost Assessment

One tree is located along the west boundary. The tree is semi-mature and has no growing deformities. Subsequently there are no suitable roosting features. The tree is considered to possess 'Negligible' bat roost potential.

##### (ii) Bat Habitat Suitability

The site comprises tussocky grassland which is adjoined by two strips of scrub along the east and west boundaries. Given the small size of the site (approx. 80m x 35m) the foraging opportunities are very localised.

The site is ecologically connected to optimal bat foraging and commuting habitat in the form of mature scrub, ponds and the River Holme to the immediate north.

Habitat associated with the site is considered to be of '**Moderate**' suitability for bats.

#### 3.3.3 Bird Assessment

No evidence of current or historic bird nesting was recorded within the site, including within the mature scrub.

Bird activity was moderate during the survey with notable activity between the scrub along the eastern boundary and the scrub and pond immediately north of the site.

Birds recorded during the survey include; great tit (4no.), robin (1no.), dunnock (2no), blackbird (2no.), and treecreeper (1no. located immediately adjacent to site).

Suitable nesting habitat is confined to the mature scrub on the east boundary and due to the limited nesting opportunities, the site is of '**low**' suitability for breeding birds.

#### 3.3.4 Great Crested Newt Assessment

##### (i) Pond Scoping

There is one pond located within 250m of the site. The former mill pond is located approximately 20m north of the site.

## (ii) Habitat Suitability Index Results

The results of the HSI assessment are provided in Table 3.2 below.

**Table 3.2: Former Mill Pond HSI result**

<b>Pond Ref / Grid Ref</b>	<b>Former Mill Pond</b>
<b>Suitability Index Description</b>	<b>SE 1263 0704</b>
Geographic location	0.50
Pond area	0.80
Pond permanence	0.90
Water quality	0.67
Shade	0.20
Water fowl effect	0.67
Fish presence	0.33
Pond Density	0.70
Terrestrial habitat	1.00
Macrophyte cover	0.60
<b>HSI SCORE</b>	<b>0.58</b>
<b>POND SUITABILITY</b>	<b><i>Below Average</i></b>

The pond is considered to be below average for GCN.

### 3.3.5 Other Protected Species

No evidence of any other protected or notable species was recorded in the site or within 50m of the site.

## 4. CONCLUSION AND RECOMMENDATIONS

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### 4.1 DESK STUDY

#### 4.1.1 Statutory Designated Sites

There are no statutory sites within the site. One site (Dark Peak SSSI) is located 1.85km from the site.

The Natural England (NE) Impact Risk Zone (IRZ) tool<sup>3</sup> has been reviewed and states that there is no requirement to consult NE for this proposal.

##### (i) Recommendations: Statutory Designated Sites

Due to the scale and nature of this proposal there is no requirement for any further assessment or consultation.

#### 4.1.2 Non-statutory Designated Sites

There are no known non-statutory sites within the site. Malkin House Wood LWS is located approximately 460m east of the site. The LWS is designated for its woodland habitat. As the proposal site is downhill from the woodland and a considerable distance, there is considered to be no ecological or hydrological connectivity between the sites. As such impacts upon the LWS can be discounted.

##### (i) Recommendations: Non-statutory Designated Sites

No further survey or assessment is required.

### 4.2 HABITATS

The habitats on site are of low to moderate distinctiveness and in poor to moderate condition (Natural England, 2023).

Due to the size and condition of the habitats on site, the value of the current habitats cannot exceed 'site' ecological value, with impacts not extending beyond the land directly affected by the proposals.

The proposals are likely to affect areas of scrub and g3c8 grassland. As these habitats are of at least low distinctiveness, the development will need to ensure appropriate compensation for the loss of these habitats.

##### (i) Recommendations: Habitats

Habitats of low distinctiveness or higher will need to be compensated for appropriately. As standard practice, it is recommended that compensation is demonstrated via a biodiversity net gain assessment<sup>4</sup>.

### 4.3 BADGERS

No evidence of badger activity was found within the site or the wider area during the survey.

It is concluded that badger are absent on site and locally.

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<sup>3</sup> GIS tool developed by Natural England to make a rapid initial assessment of the potential risks posed by development proposals to statutorily designated sites

<sup>4</sup> Habitats of low distinctiveness or higher require appropriate compensation through the use of a biodiversity metric assessment (Natural England, 2023).

**(i) Recommendations: Badgers**

There are no requirements for further surveys or assessment.

**4.4 BATS**

Bats are comprehensively protected under European legislation (Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019).

There are no buildings on site. One tree has been assessed for bat roost potential and is considered to be of 'negligible' potential.

The habitats associated with the site and surrounding area are of moderate suitability to bats, primarily due to the presence of water bodies and water courses, and associated trees / scrub.

Due to the small size of the site, the value of the site for bats is considered to be of 'site' ecological value, with impacts not extending beyond the land directly affected by the proposals.

**(i) Recommendations: Bats**

There are no requirements for further survey or assessment. However, to demonstrate an overall biodiversity net gain from the application, it is recommended that 2no. bat roost provisions are provided within the new build or upon existing trees.

A large number of externally fitted box model for bats exist for buildings and trees. Suitable models for both buildings and trees may include the Eco Kent Bat Box. These should be fitted on the south elevation of any tree, to avoid light pollution from the factory.



The Habitat Bat Box is also recommended and is a solid box made of insulating concrete with internal roosting space. The box blends seamlessly into brick-built properties and may be incorporated into the fabric of buildings.



### Lighting in Relation to Bats

In all cases illumination of peripheral boundary areas should be avoided, particularly in proximity to sensitive bat habitats (i.e. any retained scrub / woodland around the perimeter of the site). Where lighting is required, this must be low level, low intensity and directed downwards away from boundaries. The following principles will apply;

- Where and if lighting is required, this will be directed internally within the site avoiding spillage towards boundary habitats.
- The use of low powered sodium lights or similar will be used and these will be fitted with cowls / covers that prevent lateral light spillage towards boundary habitats.
- Wherever possible and only if required low level (1-1.5m high) bollard lighting will be used.
- If required lights will be fitted with timer controls that minimise the duration of lighting.

Lighting requirements will follow guidance provided by the Bat Conservation Trust.

<https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>

## 4.5 BIRDS

All breeding birds (with only minor exceptions) are offered various levels of protection under the Wildlife and Countryside Act (1981) as amended.

There are limited nesting provisions available within the site and no evidence of current or historic nesting was recorded.

The value of the site for birds cannot exceed 'site' ecological value, with impacts not extending beyond the land directly affected by the proposals.

### (i) Recommendations: Birds

There are no requirements for further survey or assessment.

Additional bird nesting provisions should be included on the tree line along the southern boundary. These enhancement measures would contribute to achieving an overall biodiversity net gain for this proposal.

Bird nesting provisions should include as a minimum:

- 2no. standard bird nest boxes which could support common garden bird species (e.g. 1B Schwegler nest box).

## 4.6 GREAT CRESETED NEWTS

Great crested newts are comprehensively protected under European legislation (Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019).

There is one pond located within 250m of the site. The former mill pond is located approximately 20m north of the site. The HSI score for the pond indicated a 'below average' habitat suitability for GCN.

Despite the close proximity of the pond to the proposal, the pond has been scoped out for any further assessment based on the following reasons:

1. The desk study returned no records of GCN within 2km. This includes any records held on MAGIC.
2. Historic surveys and assessments undertaken of the pond have confirmed absence / scoped out GCN:
  - a. 2007 – Presence / absence surveys did not find any GCN.
  - b. 2020<sup>5</sup> - GCN surveys scoped out and not undertaken.
3. As the pond is isolated and there are no other ponds within 250m, it can be assumed with reasonable certainty that GCN remain absent from the pond and locally. The pond is within an upland setting where there are no known GCN populations.
4. The pond is sub-optimal for GCN, primarily due to the presence of fish (heron observed catching fish) and the inflow and outflow connecting the mill pond to the adjacent water course.
5. There is an abundance of optimal terrestrial habitat surrounding the mill pond. In addition there are two stone walls (along Dam Head) which provide physical barriers to dispersal for amphibians.

### (i) Recommendations: GCN

There are no requirements for further survey or assessment.

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<sup>5</sup> Whitcher Wildlife Consultants (2020) – Hinchcliffe Mill, Holmfirth: Extended Phase 1 Habitat Survey

## 5. ECOLOGICAL IMPACT ASSESSMENT

The following section evaluates the site in relation to statutory/non-statutory sites, protected species and species/habitats listed under the NERC Act (2006) Section 41; Species/Habitats of Principal Importance in England, and provides an ecological impact assessment for each feature.

Ecological Feature	Summary of Findings	Effect without mitigation	Mitigation	Significance of effects of residual impacts (after mitigation)
Statutory Designated Sites	Dark Peak SSSI located 1.85km from site.	None. There is no ecological or hydrological connectivity between the site and the SSSI.	None.	None.
Non-statutory Designated Sites	Malkin House Wood LWS located 460m from site.	None. There is no ecological or hydrological connectivity between the site and the LWS.	None.	None.
Habitats	g3c8 grassland – moderate condition. h3d bramble scrub – N/a condition. h3h mixed scrub – poor condition. The above habitats are of low to moderate distinctiveness.	Proposals are confined to northern half of the surveyed area. In the absence of any landscape mitigation, the development is likely to result in a biodiversity net loss.	Biodiversity Net Gain (BNG) assessment to be undertaken. Appropriate soft landscaping design (reference drawing) to provide a 10% BNG overall.	None
Badger	Badger considered absent from the site and locally	None.	None.	None.
Bats	All trees on site possess negligible bat roost potential.	None.	2no. bat roost provisions recommended. Lighting design will ensure no light	Slight positive effect. Increase in bat roost provisions within the site.

Preliminary Ecological Appraisal and Impact Assessment  
- Land at Dam Head, Holmbridge, Holmfirth -

Ecological Feature	Summary of Findings	Effect without mitigation	Mitigation	Significance of effects of residual impacts (after mitigation)
	Site offers very localised foraging opportunities for small number of bats.		spill on to key boundary features.	
Birds	No evidence of current or historic bird nesting within scrub and trees present on site.	There will be small loss of nesting provisions due to the removal of scrub.	2no. bird nesting provisions recommended. <b>Soft landscaping design will ensure nesting provisions long term.</b>	None.
Amphibians (GCN)	One pond located within 250m. Amphibians including GCN considered absent from the site and locally.	None.	None.	None.
Other Protected or Notable Species	No evidence or potential for any other protected or notable species to be present within the site	None.	None.	None.

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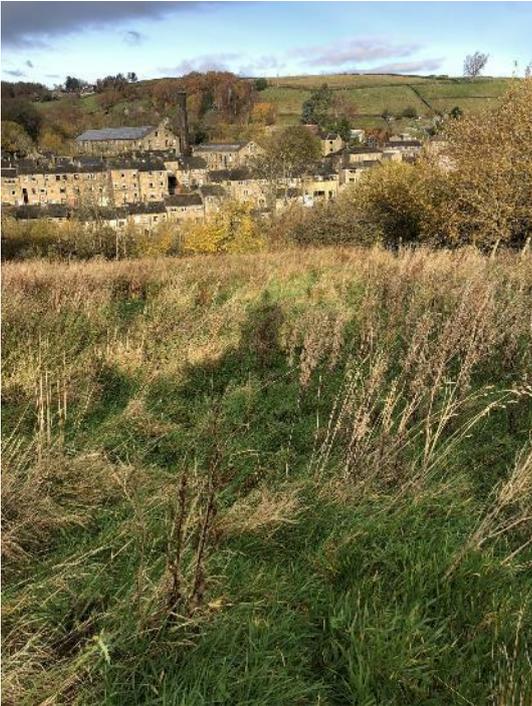
Google Earth. Accessed various dates. Latest access 04/12/2023.

Natural England – MAGIC. Accessed various dates. Latest access 04/12/2023. <http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx>

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## Appendix A: Site Photographs

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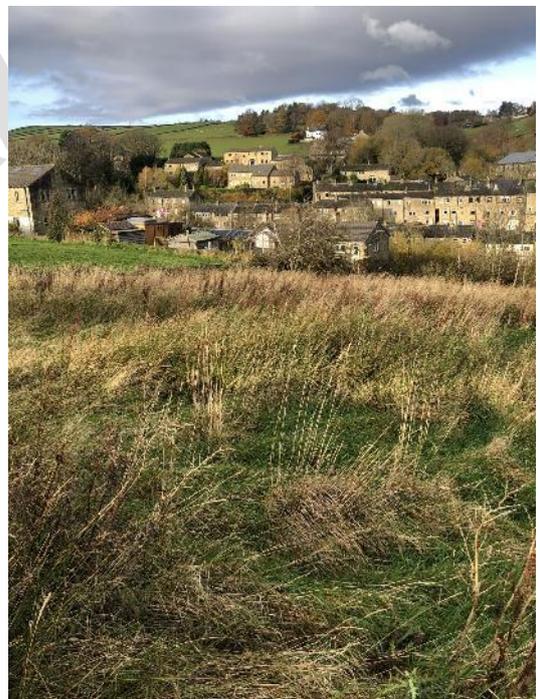
Photograph 1: View of development site looking north. g3c8 grassland (TN1)



Photograph 3: Target note 1a (g3c8 grassland) which is rank and unmanaged. This area was formerly grazed by horses.



Photograph 2: Target Note 1a (g3c8 grassland), with more abundant common bent.



Photograph 4: Target Note 1b (g3c8 grassland) but with more abundant soft rush. Indication of wetter substrate in south section of site.



**Photograph 5: Target note 2 (h3h mixed scrub) along eastern boundary. Encroachment into field parcel from the eastern boundary.**



**Photograph 7: Section of bramble scrub in north west corner of the site. This is the proposed location of the new dwelling.**



**Photograph 6: Target note 2 (h3h mixed scrub) along eastern boundary. Saplings present within scrub.**



**Photograph 8: Bramble scrub with a single, early mature cherry tree along western boundary.**



**Photograph 9: View looking along northern boundary with Dam Head left and the rank grassland and scrub on site, to the right.**



**Photograph 11: View looking along Dam Head showing the separation between the site (left) and the mill pond and associated scrub (right).**



**Photograph 10: View of the former mill pond from Dam Head. Water body scored 'below average' HSI score.**

# Appendix B: Figure



**Site Ref:**  
Land at Dam Head, Holmbridge,  
Holmfrith

**Figure 1:**  
UKHabs Baseline Map



**Client:**  
Geoff Howarth

**Study Date:**  
21/11/2023

**Scale:**  
Not To Scale

- UKHabs Map Symbology:**
- g3c8 – Holcus–Juncus neutral grassland
  - h3d – Bramble scrub
  - h3h – Mixed scrub
  - N/a – Individual tree
  - N/a – Target notes
  - N/a – Change in habitat composition
  - Survey Area

- Standard Species Codes:**  
(Nomenclature follows Stace, C. 1997)
- |    |                            |                     |
|----|----------------------------|---------------------|
| Ac | <i>Agrostis capillaris</i> | Common bent         |
| Ca | <i>Cirsium arvense</i>     | Creeping thistle    |
| Dg | <i>Dactylis glomerata</i>  | Cock's-foot         |
| HI | <i>Holcus ianatus</i>      | Yorkshire fog       |
| Ia | <i>Ilex aquifolium</i>     | Holly               |
| Je | <i>Juncus effusus</i>      | Soft rush           |
| Pr | <i>Prunus spp.</i>         | Cherry tree species |
| Ps | <i>Prunus spinosa</i>      | Blackthorn          |
| Qp | <i>Quercus petraea</i>     | Sessile oak         |
| Ra | <i>Rumex acetosa</i>       | Common sorrel       |
| Rf | <i>Rubus fruticosus</i>    | Bramble             |
| Ro | <i>Rumex obtusifolius</i>  | Broad-leaved dock   |
| Rr | <i>Ranunculus repens</i>   | Creeping buttercup  |
| Sx | <i>Salix spp.</i>          | Willow species      |

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- Protected species survey & licensing
- Habitat survey
- Habitat creation & management
- Agricultural survey & impact assessment
- Invasive species survey & control
- Management plans