PENNINE ecological

# - Land at West Bradford, Lancashire -

## Preliminary Ecological Appraisal

**May 2022**

**- Land at West Bradford, Lancashire -**

**Preliminary Ecological Appraisal**

*A report for*

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# 1. INTRODUCTION

## 1.1 REASON FOR SURVEY

PENNINE Ecological were commissioned in April 2022 by Cherry Investments to undertake a Preliminary Ecological Appraisal (PEA) of land adjacent to Eaves Hall Lane, West Bradford (hereafter referred to as 'the site'). The survey and report are required to support a planning application to develop the site with approximately 12 caravans and associated infrastructure being proposed (Figure 1).

A site visit was undertaken on the 27th of April 2022 with desk based ecological data being received from the local records centre, Lancashire Environmental Records Network (LERN) on the 17th of May 2022.

The study includes the following elements:

- A desk-based search of freely available online ecological information (e.g., Defra's MAGIC mapping tool, Google Earth, Ordnance Survey mapping etc.).
- A desk-based review of purchased ecological data from LERN.
- A UK Habitat Classification habitat field survey.
- A field survey and evaluation of the site to support protected and/or notable species including but not limited to:
    - Badger.
    - Bats.
    - Birds, including Schedule 1 listed species of the Wildlife and Countryside Act 1981 (as amended) (e.g., barn owl, hobby, kingfisher, etc.).
    - Great crested newt (GCN).
    - Other protected species (e.g., brown hare, hedgehog, reptiles, etc.).

The report provides an evaluation of the ecological significance of the desk-based data from LERN and field survey results. If required, it also includes recommendations for further survey and/or precautions when and where appropriate.


Figure 1: Proposed plans to develop the site comprise 12 caravans and associated infrastructure.

## 1.2 SITE LOCATION

The site is approximately 500m north west of the village of West Bradford, Lancashire, and is immediately adjacent to the Three Rivers Woodland Park which is composed of semi-permanent wooden chalets, and self-catering lodges. Eaves Hall, a large Georgian mansion, is approximately 300m south of the site.

Bounded by hedgerows and dry-stone walls, the surrounding landscape is dominated by improved grassland fields used for livestock grazing. Upon review of aerial mapping there are extensive areas of deciduous woodland within 1km of the site and a network of watercourses including West Bradford Brook, Drakehouse Brook, Coplow Brook and Waddington Brook, all of which are tributaries of the river Ribble, the latter of which is 1.3km south of the site.

The central Ordnance Survey National Grid Reference for the site is SD 73570 45195. Refer to Figure 2 below which includes the approximate red line boundary of the site.

An accompanying habitat map is provided in Map 1, Appendix A with photographs provided in Appendix B.


Figure 2 - Site location and the area subject to survey in April 2022 is within the red line boundary.

# 2. METHODOLOGY

The methodologies relating to the LERN data request, desk-based searches and field surveys undertaken in April and May 2022 respectively are outlined below.

## 2.1 DESK-BASED STUDY

### 2.1.1 Defra's MAGIC Mapping Tool

Defra's Multi Agency Geographical Information Centre (MAGIC) (www.magic.gov.uk) was used to identify the following features of ecological interest (MAGIC was last accessed on the 20th of May 2022).

- Statutory designated sites (e.g., Special Protection Areas (SPA), Sites of Special Scientific Interest (SSSI)) within 2km of the site (and associated SSSI Impact Risk Zones).
- Granted European Protected Species Licence Applications within 1km.
- Great Crested Newt Class Survey Licence Returns within 500m.

### 2.1.2 Local Records Centre Data Request

Due to the nature of the proposals and the site's location within a largely rural area it was decided in advance that a request for ecological data from the local records centre (i.e., the Lancashire Environmental Records Network) was appropriate. The request and data would provide an improved level of understanding with regards to sites, habitats and species within the surrounding landscape. furthermore, it would aid any ecological evaluation and potential impacts the development might have on the surrounding landscape in addition to the UK Habitat Classification field survey (see section 2.2).

Records of the following are included within this report.

- Non-statutory designated sites within 1km of the site (i.e., Biological Heritage Sites).
- Protected and/notable species within 1km of the site.
- Invasive non-native species within 1km of the site.

The results of the desk study data are summarised in the results section of this report. Due to the large number of files and available data, the data can be made available in full upon request if required.

## 2.2 UK HABITAT CLASSIFICATION SYSTEM SURVEY

A UK Habitat Classification Survey (UKHab, 2020) of the site was undertaken on 27th of April 2022. The survey was undertaken by Stuart Macpherson who is an experienced ecologist with experience of undertaking UKHabs surveys and holds survey licences for great crested newts, bats, and barn owl.

Weather conditions during the survey were warm (14°C), dry and overcast.

The site's habitats were fully mapped with reference to Stace (1997), and higher vascular plant species (where present) were recorded and given abundance values according to the standard DAFOR scale where: D is dominant, A is abundant, F is frequent, O is occasional, and R is rare. Where appropriate the abundance values can be prefixed by the letter L (locally) or V (very), to provide more subtle biogeographical data.

### 2.3 BADGER SURVEY

Where access permitted a badger survey was undertaken to identify evidence of badger (e.g., setts, pathways, footprints, latrines etc.) utilising the site. Surveys were undertaken in accordance with *Surveying Badgers* (Harris *et al.,* 1989) and *Badger* (Roper, 2010).

### 2.4 GCN HABITAT ASSESSMENT

A Habitat Suitability Index (HSI) assessment for great crested and other amphibians was undertaken for the site. A search for optimal great crested newt habitat (e.g., ponds, hedgerows, dense vegetation, broadleaf woodland etc.) was undertaken with reference to *An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt Triturus cristatus* English Nature Research Reports, English Nature (2004).

The HSI assessment scoring system is a geometric mean of ten suitability indices: HSI = $(SI_1 \times SI_2 \times SI_3 \times SI_4 \times SI_5 \times SI_6 \times SI_7 \times SI_8 \times SI_9 \times SI_{10})^{1/10}$ (Great Crested Newts Habitat Suitability Index ARG UK Advice Note 5, 2010)

- Ten factors are scored for a pond, in the field and from map work (field scores).
- The ten field scores are converted to Suitability Index (SI) scores, on a scale from 0.01 to 1 (0.01 is used as the lower end of the scale instead of 0, because multiplying by 0 reduces all other SI scores to 0).
- The ten SI scores are multiplied together.
- The tenth root of this number is calculated (x) 1/10 i.e., x to the power of 0.1.

The calculated HSI for a pond should score between 1 and close to 0 (the calculations above do not allow the HSI to be exactly 0). The categories of the HSI scores is shown in Table 1.

Table 1: Categorisation of HSI Scores (taken from Great Crested Newts Habitat Suitability Index ARG UK Advice Note 5)

| HSI | Pond Suitability |
|---|---|
| <0.5 | Poor |
| 0.5-0.59 | Below average |
| 0.6-0.69 | Average |
| 0.7-0.79 | Good |
| >0.8 | Excellent |

## 2.5 PRELIMINARY ROOST ASSESSMENT FOR BATS

A preliminary bat roost assessment survey was undertaken following the methodology outlined in the Bat Conservation Trust's *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edn) Collins (2016). The survey was undertaken by Stuart Macpherson who is a Class 2 bat licensed ecologist (licence number 2021-10079-CL18-BAT).

The survey included a survey for potential roost features (PRFs) within buildings, trees or any other structures which may support a bat roost (e.g., culverts, bridges, walls etc.) within the site boundary and which may be directly impacted on by the proposals.

The site was also assessed for its suitability to support foraging and commuting bats.

## 2.6 BREEDING BIRD HABITAT ASSESSMENT

The potential for the site to support breeding birds was evaluated by an assessment of the site's habitats to support breeding birds and any evidence of current or historic nesting. Habitats suitable for breeding birds could include but are not limited to buildings, scrub, hedgerows, and trees.

## 2.7 OTTER AND WATER VOLE

An assessment of the site to support otter and/or water vole was undertaken in accordance with the good practice guidelines for the two species: Monitoring the Otter (*Lutra lutra*) (Chanin, 2003) and Water Vole Conservation Handbook (Strachan and Moorhouse 3rd Edn, 2011). The survey comprised the search for evidence of use by either of the two species of the unnamed stream that flowed northwest to southeast through the site. Evidence of otter would include holts, couches, footprints spraints etc. and water vole droppings, feeding stations, burrows etc.

## 2.8 LIMITATIONS

There were no constraints to the survey.

# 3. RESULTS

The results of the desk-based searches, the UK Habitat Classification field survey and the species-specific surveys are outlined below.

## 3.1 DESK-BASED STUDY

### 3.1.1 Statutory Designated Sites

Two statutory designated sites were identified within 2km of the site. The sites identified are as follows.

- Forest of Bowland Area of Outstanding Natural Beauty (AONB): The site is within the footprint of the AONB. The AONB is designated for its 'natural beauty' rather than the presence/absence of protected habitats or species which whilst potentially present within the AONB are not the sole reason(s) for the designation.
- Cross Hill Quarry Local Nature Reserve; the LNR is approximately 1.8km south east of the site. Taken from the Natural England website the following description/statement is provided; "*Cross Hill is a good example of natural change on a man-made site and has since become an exceptional refuge for wildlife. Once quarrying ceased, the thin soils and exposed rock became revegetated through stages of succession from flower-rich grasslands to hawthorn scrub and finally woodland. Examples of each stage can still be seen*".

The SSSI Impact Risk Zones (IRZs) have been reviewed and consultation with Natural England is not required.

### 3.1.2 Non-Statutory Sites

Data pertaining to non-statutory designated sites was included within the ecological data received from LERN on the 17th of May 2022. The results are summarised below.

There are three non-statutory designated sites (i.e., Biological Heritage Sites (BHS)) within 1km of the site, these are listed below.

- Drakehouse Wood BHS: the BHS is approximately 60m east of the site and is 19.18ha in size and comprises ancient, semi-natural woodland. It is listed in the Lancashire Inventory of Ancient Woodland (Provisional), (English Nature, 1994).
- Hospital Wood BHS: the BHS is approximately 800m west of the site and is 8.46ha in size and comprises semi-natural woodland. It is listed in the Lancashire Inventory of Ancient Woodland (Provisional), (English Nature, 1994). The site is immediately adjacent to Feazer Wood (see below).
- Feazer Wood BHS: the BHS is approximately 850 west of the site and is 4.89ha in size and comprises semi-natural clough woodland. Most of the wood is included in the Lancashire

Inventory of Ancient Woodland (Provisional), (English Nature, 1994). The site is immediately adjacent to Hospital Wood (see above).

### 3.1.3 Protected and/or Notable Species

#### (a) Local Records Centre Protected and/or Notable Species

Data pertaining to protected and/or notable species was included within the ecological data received from LERN on the 17th of May 2022. The results are summarised below.

It should be noted no records have been identified to be within the site boundary. The nearest record/group of records is 360m east of the site boundary within Drakehouse Wood.

- Seven records of amphibians (this does not include any records of great crested newt).
- 182 records of birds including:
    - Four species listed in Schedule 1 of the Wildlife and Countryside Act 1981 (as amended).
        - Barn owl
        - Kingfisher
        - Merlin
        - Peregrine
- 277 records of mammals including the following species:
    - Brown hare
    - Brown long-eared bat
    - Common pipistrelle bat
    - Daubenton's bat
    - Fallow deer
    - Hedgehog
    - Red squirrel
    - Roe deer
    - Soprano pipistrelle bat
    - Stoat
    - Water vole
- 88 records of fish.
- One species of clubmoss.
- Four records of fern.
- 172 records of flowering plants.
- 93 records of insect.
- 84 species of moss (35), lichens (26) and liverworts (23).
- 189 records of 49 Invasive Non-native Species (INNS)

#### (b) Granted European Protected Species Licence Applications

There are no granted EPS license applications within 1km of the site.

The nearest granted licence application is approximately 1.5km south west of the site. The licence (reference number is 2016-26538-EPS-BDX) was in respect of the destruction of a common and soprano pipistrelle bat breeding site and resting place. The licence start and end dates were 20/10/2016 to 31/10/2016.

**(c) Great Crested Newt Class Survey Licence Returns**

No Great Crested Newt Class Survey Licence Returns were identified within 500m of the site. There are no records of great crested newt within 5km of the site (including local record centre data, see above).

## 3.2 UK HABITAT CLASSIFICATION SURVEY

### 3.2.1 General Description

The site is approximately 1.2 ha in size and is dominated by an improved grassland field; used at the time of survey for sheep grazing (Photograph 1). The western boundary comprised an unnamed brook, tree line and a dry-stone wall (Photograph 2). The site's northern boundary was formed of a post and wire fence beyond which, and outside of the red line boundary, improved grassland extended northwards (Photograph 3). The eastern boundary (Photograph 4) comprised a linear stretch of woodland along Eaves Hall Lane towards the site's southern boundary formed of a post and wire fence beyond which a deciduous woodland block was recorded (Photograph 5).

Habitat types with the UK habitat Classification in brackets are listed below.

- Built linear features (u1e)
- Line of trees (w1g6)
- Modified grassland (g4)
- Dry stone wall (67)
- Other rivers and streams (r2b)

Target notes identified on site are listed and described in further detail below.

- Target Note 1 - Unnamed watercourse and tree line
- Target Note 2 - Sheep grazed improved grassland field
- Target Note 3 - Linear woodland along Eaves Hall Lane and to the south of the site
- Target Note 4 - Bat roost potential trees
- Target Note 5 – Pond to the south of the site

**(a) Target Note 1 – Unnamed watercourse and tree line**

An unnamed brook (Photograph 6) was recorded within the red line boundary approximately 5m (on average) from the site's western boundary (a dry-stone wall). It flowed southwards for the entire length of the site. The channel depth and width on average were 0.15cm and 0.5m respectively and it had a slow flow. It was suspected that following a period of drier weather with low rainfall the

brook would dry out. The substrate was predominantly cobbles, gravel and sand. Bank heights varied and in places comprised bare, 90° vertical earth banks approximately 1.1m (Photograph 7) high to gentle (<30°) banks (Photograph 6). No evidence of burrows or nesting holes for water vole or kingfisher respectively, were recorded within the vertical banks. Bankside vegetation comprised a very short sheep grazed grassland sward, however periodically along the banks areas of enrichment gave rise to locally dominant common nettle and creeping thistle (LA). Also recorded along the banks were soft rush (LA), bramble (LA), opposite leaved golden saxifrage (LA), cow parsley (LF), foxglove (O), wild angelica (O) and common valerian (O).

**(b) Target Note 2 - Sheep grazed improved grassland field**

The vast majority of the site comprised the closely grazed, improved grassland field upon which the development will occur (Photograph 1). Vegetation height was maximum 4cm and comprised species typical of the habitat; perennial rye grass (A), annual meadow grass (A), red fescue (A), meadow buttercup (A), white clover (A), ribwort plantain (F), creeping thistle (O) and soft rush (LA).

**(c) Target Note 3 – Linear woodland along Eaves Hall Lane and to the south of the site**

Target Note 3 is outside of the site boundary but is included here due to its proximity to the development site. The Target Note describes what was presumed to be formerly a hedgerow which has not experienced any significant management thus allowing it to succeed into a habitat that closely resembles woodland (Photograph 4). Mature oak (A) and ash (F) trees were recorded along the length of the habitat, some of whom comprised bat roost potential (refer to Target Note 4). Other tree/woody species recorded were as follows; holly (A), hawthorn (F), sycamore (O), hazel (O), rose (R), rowan (R) and willow (R). Ground flora comprised meadowsweet (F), Dog's mercury (LA), Lords and Ladies (O), wood avens (F), horsetail sp. (O), male fern (O) and bramble (LA). To the south of the site mature beech trees (D), holly (LA) and rhododendron (LA) were recorded. Due to the dense canopy no ground flora was recorded.

**(d) Target Note 4 – Bat Roost Potential Trees**

Five trees across the site were identified to have potential roost features that could support roosting bats, the details of which are listed below.

- Tree 1 – Ash tree; low bat roost potential (SD 73598 45202) (Photograph 8)
- Tree 2 – Ash tree; moderate bat roost potential (SD 73606 45193) (Photograph 9)
- Tree 3 – Oak tree; high bat roost potential (SD 73629 45140) (Photograph 10)
- Tree 4 – Dead tree (species unknown); low bat roost potential (SD 73575 45141) (Photograph 11)
- Tree 5 – Alder tree with low bat roost potential (SD 73522 45209) (Photograph 12)

**(e) Target Note 5 – Pond to the south of the site**

Reviewing aerial imagery, a pond was identified immediately south of the site at approximate grid reference SD 73635 45058 (Photograph 13). Access was limited; hence a thorough survey could not be undertaken, however, sufficient ecological data was collected to complete a Habitat Suitability

Index assessment of the pond for its suitability to support great crested newt and other amphibians (see section 3.3.1 below). The pond measured approximately 21m x 19m (399m$^2$), with steep >60° banks on all aspects. The depth was unknown, although reviewing online mapping tools it is noted as being a reservoir indicating it could be relatively deep. No aquatic vegetation could be identified but marginal plant species recorded included bulrush (F) and soft rush (F). On the pond's banks dense bramble (LD) scrub dominated the southern and western banks, alder trees were recorded on the northern bank amongst commonly occurring grass species with woodland dominating the pond's eastern bank. Mallard duck and coot were both recorded using the pond.

## 3.3 PROTECTED SPECIES SURVEY RESULTS

### 3.3.1 Badger Survey

Setts

The survey found no setts on site.

Other Field Signs

No sign of badger activity was recorded. 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 or latrines within the site indicates that badgers are not entering the site and that there is a lack of territorial activity in the near vicinity of the site.

### 3.3.2 GCN Habitat Assessment

After completing the HSI assessment of the pond described in Target Note 5, it scored *Excellent* as is outlined in section 2.4 earlier in this report. Using this single desk-based methodology the potential for great crested newt to be present within the pond cannot be ruled out. However, the habitat between the pond and the development is sub-optimal i.e., closely grazed sheep pasture and great crested are unlikely to use this habitat for commuting to terrestrial habitats due to the possibility of being predated on. Furthermore, the presence of mature woodland immediately to the east and tree lines to the west are likely to be favoured by great crested newt as their foraging grounds and winter hibernacula habitat.

### 3.3.3 Preliminary Roost Assessment for Bats

Refer to Target Note 4.

Five trees were recorded to have bat roost potential. However, it should be noted that only two trees, Trees 4 and 5, were within the red line boundary of the site. Trees 1 – 3 inclusive were within the woodland strip described within Target Note 3 and so are outside of the site boundary.

All five trees identified with bat roost potential are potentially to be adversely impacted on (from the perspective of supporting a bat roost) as a result of the development (unless appropriate mitigation is implemented / adhered to).

### 3.3.4 Breeding Bird Habitat Assessment

The improved grassland field is highly unlikely to support ground nesting birds such as lapwing or curlew. However, along the site's western, eastern and southern boundaries, ample opportunities for nesting birds were identified within the treelines recorded.

### 3.3.5 Otter and Water Vole

No evidence of otter or water vole were recorded along the unnamed brook.

For otter, the brook did not support a fish population thus it is highly unlikely it would support an otter population. Furthermore, it was suspected the brook would dry out during periods of low rainfall during the spring and summer months reducing the likelihood of otter presence.

With regards water vole presence, due to the banks of the brook being closely grazed there was a distinct lack of aquatic and/or marginal vegetation which would provide sufficient cover favoured by water vole. Where the banks of the brook were thought to be suitable for burrows / bolt holes, no evidence of such was recorded.

## 3.4 OTHER PROTECTED SPECIES

Issues in relation to other potential protected species where no specific survey was undertaken are assessed in the following section.

# 4. ECOLOGICAL EVALUATION & RECOMMENDATIONS

Where relevant, this section evaluates the site in relation to statutory sites, and protected habitats/species listed in national and local legislation and policy.

## 4.1 STATUTORY DESIGNATED SITES

### (i) Evaluation

Two statutory designated sites were identified with 2km of the site. The site is within the boundary of the Forest of Bowland AONB and is 1.8km from Cross Hill Quarry Local Nature Reserve.

### (ii) Recommendations

The Forest of Bowland AONB is designated for its 'natural beauty' and it is not designated solely due to the presence of protected and/or notable habitats and species, although these are likely to form a significant consideration for the designation. Therefore, further discussion with the Local Planning Authority will be required with regards to the development and any potential issues or conflicts that may arise due to the development being within the AONB site boundary.

Due to the distance the site is from Cross Hill Quarry Local Nature Reserve, no further consideration is required.

## 4.2 HABITATS AND HIGHER PLANT SPECIES

### (i) Evaluation

No nationally scarce or red data listed plant species were recorded on site. The remaining habitats within the red line boundary are of limited ecological value and are considered to be of 'site' value only.

However, the linear woodland strip adjacent to the site and Eaves Hall Lane did support Dog's mercury and wood avens which are often associated with ancient woodland. Reviewing aerial imagery Eaves Hall Lane was identified on the first edition of Ordnance Survey mapping produced in the 1840s. It is therefore likely the linear woodland strip has existed since this time and is also of historical importance.

### (ii) Recommendations

There are no requirements for further surveys. However, the linear woodland along Eaves Hall Lane should not be disturbed, nor any vegetation clearance occur within it without further consultation with a suitably qualified ecologist and/or the Local Planning Authority.

## 4.3 BADGER

### (i) Evaluation

Badgers are protected under Schedule 6 of the Wildlife and Countryside Act 1981, and under the Protection of Badgers Act 1992, which prohibits deliberate interference with the animal or its sett. The survey found no evidence of historic, recent, or current use of the site by badgers and therefore the species is considered to be absent from the site.

### (ii) Recommendations

There are no requirements for further surveys.

## 4.4 GREAT CRESTED NEWT (AND OTHER AMPHIBIAN SPECIES)

### (i) Evaluation

Great crested newt is comprehensively protected under European legislation.

There are no ponds within the proposed development site, however, one pond was identified immediately to the south of the site and following an HSI assessment of it was categorised as *Excellent,* thus the presence of great crested newt cannot be ruled out. A second pond was identified approximately 240m south of the site. There were no GCN records returned within the desk study data, however this does not prove their absence and as such precautionary measures are advised in order to reduce the likelihood of an offence occurring.

### (ii) Recommendations

There are no requirements for further surveys. However, to help assess the level of potential impact on GCN the Rapid Risk Assessment Table from Natural England's GCN Method Statement Template (WML-A14-2) was employed. It should be noted that the 'likely effect' inputted into the table is that **without** any precautionary working measures applied. In addition, the table doesn't differentiate between good or poor-quality habitats and therefore assumes that the habitats affected are suitable for GCN habitation.

The results are presented below.

| **Component** | **Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)** | **Notional offence probability score** |
|---|---|---|
| Great crested newt breeding pond(s) | No effect | 0 |
| Land within 100m of any breeding pond(s) | No effect | 0 |
| Land 100-250m from any breeding pond(s) | 1 - 5 ha lost or damaged | 0 |
| Land >250m from any breeding pond(s) | 1 - 5 ha lost or damaged | 0 |
| Individual great crested newts | Minor disturbance of newts | 0 |
| | Maximum: | 0 |
| Rapid risk assessment result: | **GREEN: OFFENCE HIGHLY UNLIKELY** | |

Natural England guidance in relation to "Green: Offence Highly Unlikely" indicates that the development activities are of such a type, scale, and location that it is highly unlikely any offence would be committed should the development proceed. Therefore, no licence would be required. However, bearing in mind that this is a generic assessment, you should carefully examine your specific plans to ensure this is a sound conclusion, and take precautions (see non-licensed avoidance measures tool) to avoid offences if appropriate. It is likely that any residual offences would have negligible impact on conservation status, and enforcement of such breaches is unlikely to be in the public interest.

The following list outlines the principle issues in respect of impacting GCN if no Risk Avoidance Measures (RAMs) were applied.

- Permanent loss of habitat.
- Potential low risk of disturbing individual terrestrial GCN.
- Potential of individual GCN seeking refuge in stored waste building materials.
- Potential for small numbers of individual GCN being within the site earmarked for development.

Each of these potential effects can be adequately addressed to remove the risk to GCN, which will maintain the population at a favourable level (if present) without recourse to a European Protected Species Licence (EPSL). This is in line with current advice (see below) provided by Natural England (WML-A14-2 Version April 2020) where very low/negligible impacts are predicted:

*"In recent years there has been a trend towards increasingly precautionary applications, resulting from a risk-averse approach to mitigation. Whilst considering potential risks to great crested newts is laudable, many recent mitigation schemes were designed for developments that actually had very little or no effect on the newt population. In part this is because it can be difficult to assess whether newts will be affected by certain activities, especially when they take place at some distance from breeding ponds. Newts tend to be present at increasingly low density the further one looks from ponds, and the task of detecting and capturing them becomes more problematic. Further from ponds, there is a corresponding reduction in the scale of impact on populations. Given that great crested newts can disperse over 1km from breeding ponds, the potential for offences may seem vast, yet the probability of an offence outside the core breeding and resting area is often rather small, and even if an offence takes place, the effect on the population may be negligible.*

*Natural England is concerned about the trend for increasingly risk-averse mitigation for several reasons. Primarily, there is no legal need, and little benefit to great crested newt conservation, in undertaking mitigation where there are no offences through development. Even where there technically is an offence, such as the destruction of a small, distant area of resting place habitat, or even killing low numbers of newts, it is arguable that impacts beyond the core area often have little or no tangible impact on the viability of populations. Mitigation in such circumstances is of questionable value in conservation terms. There are, however, substantial costs: developers delay projects and spend large sums on mitigation. Sometimes the mitigation project itself has*

*environmental costs, especially when it entails substantial lengths of newt fencing. In some cases, long newt fences are employed with no justification. Natural England wishes to see newt fencing used more appropriately, i.e., only where there is a reasonable risk of capturing, containing and/or excluding newts.*

*Natural England recognises that the two key factors leading consultants to adopt this risk-averse approach are: (a) uncertainty over the presence of newts and whether there will be an offence in areas distant from ponds; (b) undertaking mitigation under licence "just in case", so that there is no perceived risk of litigation for their client. Natural England wishes to see mitigation planning shift away from such a highly risk-averse starting point. The domestic legislation protecting great crested newts arises largely from the Habitats Directive, which has a central aim to restore scheduled species to a favourable conservation status. A more proportionate approach to mitigation, addressing tangible impacts on populations whilst giving lower priority to negligible effects, is consistent with the aims of the Directive. The recent loss of the "incidental result" defence from the legislation may create a tension with this approach, but it is hoped that the guidance here will assist".*

Taking the guidance offered by NE to inform the approach to management of GCN during the proposed development, a RAMs method statement has been formulated to reasonably remove the risk to GCN whilst maintaining the population at a favourable level.

The following outlines the RAMs that will ensure that GCN or its habitat are not adversely affected during the proposed development.

**Method: Reduce vehicle movements/usage of the southern half of the site**
Rationale and Prescriptions:

- The woodland immediately adjacent to the pond and that described in Target Note 3 provides optimal GCN and other amphibian terrestrial habitat. Should any amphibians be present within the pond it is unlikely they will use the closely grazed grassland field upon which the proposals are to occur. Therefore, their integrity of the woodland should be maintained. Any deviation from the current proposals illustrated in Figure 1 may potentially lead to further ecological assessment being required.

**Method: Storage of building materials (including waste materials)**
Rationale and Prescriptions:

- Great crested may utilise stored building materials as part of their terrestrial habitat.
- All building materials must be stored at the northern end of the field so to reduce the likelihood of GCN and other amphibians from using earth mounds, rubble piles etc. as part of their terrestrial habitat. Where possible, materials will be stored on pallets or in bags.

**Method: Excavations**
Rationale and Prescriptions:

- If left overnight any holes / excavations etc. must be securely covered as such not to allow GCN or other amphibians to fall into them and not be able to escape.
- If it is not possible to securely cover any holes / excavations etc. then amphibian 'escape route' ramps must be implemented that would allow egress from such features e.g., a wooden board placed at approximately 45° from the base of the trench to the field.

- Before infilling excavations, checks for GCN and other amphibians must be made.

**Method: Procedures in the event of amphibians being found during the development.**
Rationale and Prescriptions:

- If GCN are found during the development, work must stop, and the ecologist called for advice on how the development can proceed without offence.
- In the unlikely event a significant population of GCN be found during the works then a EPSL will be required from Natural England before the works can proceed.

Any other amphibian species found during the development will be removed from the site and placed in suitable habitat.

### 4.5 BATS

#### (i) Evaluation

Bats are comprehensively protected by European legislation.

#### (ii) Recommendations

Referring to Figure 1, the five trees identified to have bat roost potential are, at the time of writing, being retained as part of the development (Trees 1 – 3 inclusive are outside of the site boundary). Should the proposals change and/or the requirement for arboricultural work to be undertaken on these trees, then further advice from a suitably qualified ecologist should be sought so to fully assess any potential impacts the works might have. There are no requirements for further surveys, however recommendation with regards to lighting of the site, is provided below.

The tree lines on ethe site's eastern and western boundaries do provide optimal bat foraging habitat and it is very likely bats will use the site for foraging and/or commuting between roosts and feeding areas. Therefore, in all cases, illumination of peripheral boundary areas, particularly along the site's eastern and western boundaries must be avoided. Where lighting is required, this must be low level/intensity and directed downwards away from the boundaries. The following principles should be implemented.

- In all cases the illumination of boundaries, particularly the western boundary must be avoided.

- Lighting should be directed internally within the site avoiding spillage towards boundary habitats and woodland.

- 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.

Lighting requirements will follow guidance provided by the Bat Conservation Trust; links are provided below.

- Bat Conservation Trust's Acritical Lighting Guidance. Webpage link https://www.bats.org.uk/our-work/buildings-planning-and-development/lighting

- Bat Conservation Trust and Institute of Lighting Professionals Guidance Note 08/18: Bats and Artificial Lighting in the UK. Webpage link https://cdn.bats.org.uk/uploads/pdf/Resources/ilp-guidance-note-8-bats-and-artificial-lighting-compressed.pdf?v=1542109349

## 4.6 BIRDS

### (i) Evaluation

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

The site is of low value to nesting birds however the boundaries do provide optimal nesting habitat.

### (ii) Recommendations

No strategic bird surveys are required.

The breeding bird season is generally accepted to be from and between March 1st to August 31st inclusive. However, any removal of vegetation should take place outside of the breeding season, i.e., between September 1st and February 28th. Following the removal, any piles of brash should be removed from the site, failure to do so could provide potential nest sites if left in situ until the following breeding season.

The proposals are not thought to involve any vegetation / tree clearance thus the risk to breeding birds is low. However, if vegetation removal is envisaged during the breeding season, prior to removal checks should be made by a suitably experienced ecologist to establish any nesting or breeding activity. Should it be identified that birds are nesting or breeding then works should be paused until the young have naturally fledged the nest.

## 4.7 OTTER AND WATER VOLE

### (i) Evaluation

Otter is a European Protected Species and water vole is listed in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).

The unnamed brook did not comprise habitats or features that would support a population of either otter and/or water vole. Furthermore, there are larger watercourses in the wider landscape that will provide optimal habitat thus reducing the likelihood of either species being present within the area.

### (ii) Recommendations

There are no requirements for further surveys.

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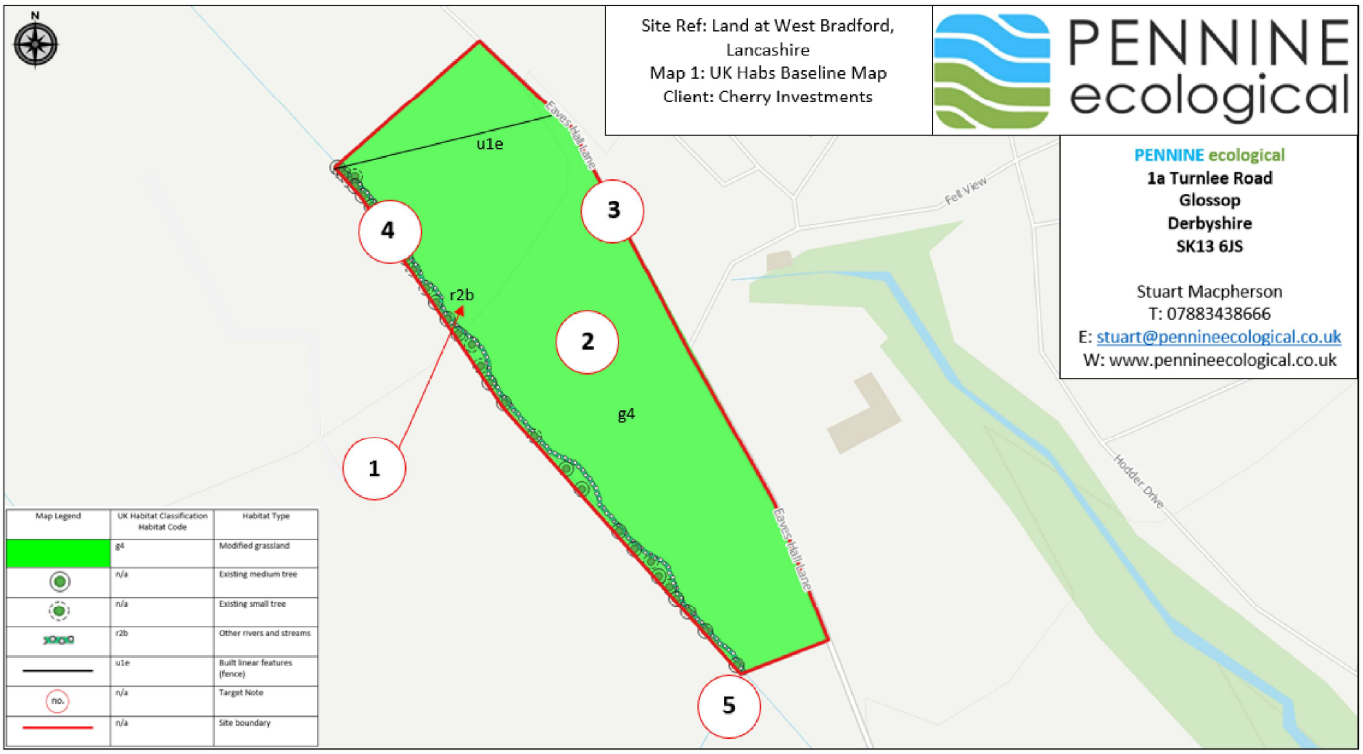
## Appendix A: Map 1 - UK Habitat Classification Survey Plan



## Appendix B - Site Photographs 27th April 2022

Photograph 1: Site overview; the photograph was taken from in southern section of the site looking northwards.

Photograph 2: Photograph of the unnamed brook, tree line and dry-stone wall which formed the site's western boundary.

Photograph 3: Post and wire fence formed the site's northern boundary. The entrance to the site is on the right of the photograph.

Photograph 4: Sites eastern boundary which is adjacent to Eaves Hall Lane.

Photograph 5: woodland block outside of and to the south of the site's red line boundary.

Photograph 6: Typical example of the unnamed brook which was on the western extent of the site.

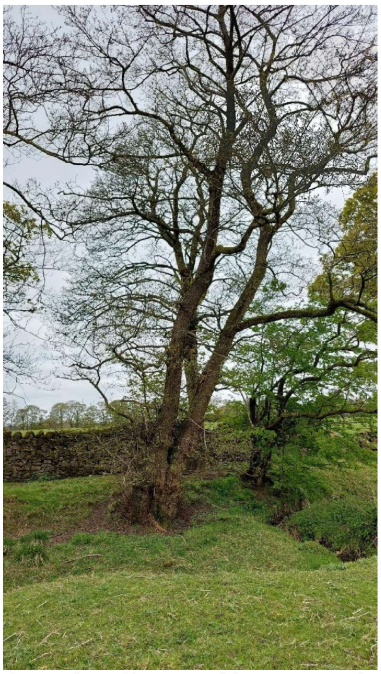
Photograph 7: Vertical cut banks along the stream. No evidence of burrowing from either kingfisher or water vole.

Photograph 8: Ash tree 1 with bat roost potential.


Photograph 9: Ash tree 2 with bat roost potential.


Photograph 10: Oak tree 3 with bat roost potential.

Photograph 11: Tree 4 with bat roost potential.



Photograph 12: Alder tree 5 with bat roost potential.

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|---|---|
|  <br>Photograph 13: | NO PHOTOGRAPH |