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Ecological Consultants
Environmental and Rural Chartered Surveyors

# Preliminary Ecological Appraisal

# Land off Hothersall Lane, Hothersall, Preston, PR3 2XB

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## ACCURACY OF REPORT

This report has been compiled based on the methodology as detailed and the professional experience of the surveyor. Whilst the report reflects the situation found as accurately as possible, all of the protected species this survey covers are wild and can move freely from site to site. Their presence or absence detailed in this report does not entirely preclude the possibility of a different past, current or future use of the site surveyed.

We would ask all clients acting upon the contents of this report to show due diligence when undertaking work on their site and/or in their interaction with protected species. If protected species are found during a work programme, and continuing the work programme could result in their disturbance, injury or death, either directly or indirectly an offence may be committed.

If in doubt, stop work and seek further professional advice.

## Quality and Environmental Assurance

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# 1. EXECUTIVE SUMMARY

1.1.1 Envirotech NW Ltd were commissioned in February 2026 to carry out a Preliminary Ecological Appraisal of Land off Hothersall Lane.

1.1.2 It is proposed an existing agricultural building is converted to equestrian use. A sand paddock and small parking area are to be constructed adjacent.

1.1.3 A data search and desk study of the site and an area within 2km of the site were undertaken to establish the presence of protected species and notable habitats.

1.1.4 The site was then visited by a licenced ecologist from Envirotech NW Ltd on 19th February 2026. A full botanical survey of the site was initially undertaken and this was followed by surveys to establish the presence or absence of notable species at the site or in proximity such that they may be affected by the proposed development.

1.1.5 The plant species assemblages recorded at the site are all common in the local area and are considered to be of low ecological value, comprising part of a larger field of modified grassland cut for silage/haylage. Sympathetically landscaped open space is considered to offer habitat of equal or greater ecological value.

1.1.6 Whilst bats, amphibians and nesting birds are known to occur within the wider local area, there was no conclusive evidence of any specifically protected species regularly occurring on the site or the surrounding areas which would require direct action, licensing or be negatively affected by site development following the mitigation proposed.

1.1.7 A number of ponds are located within a 250m radius of the site boundary. No development will be undertaken within 100m of ponds. As a precautionary approach, non-licenced avoidance measures have been provided with respect to habitat clearance works and construction activities.

1.1.8 It is understood the site will be developed sympathetically, with the retention of all boundary vegetation and addition of significant scrub planting.

1.1.9 Contractors will be observant for protected species and all nesting birds. Should any species be found during construction, all site works should cease and further ecological advice should be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.

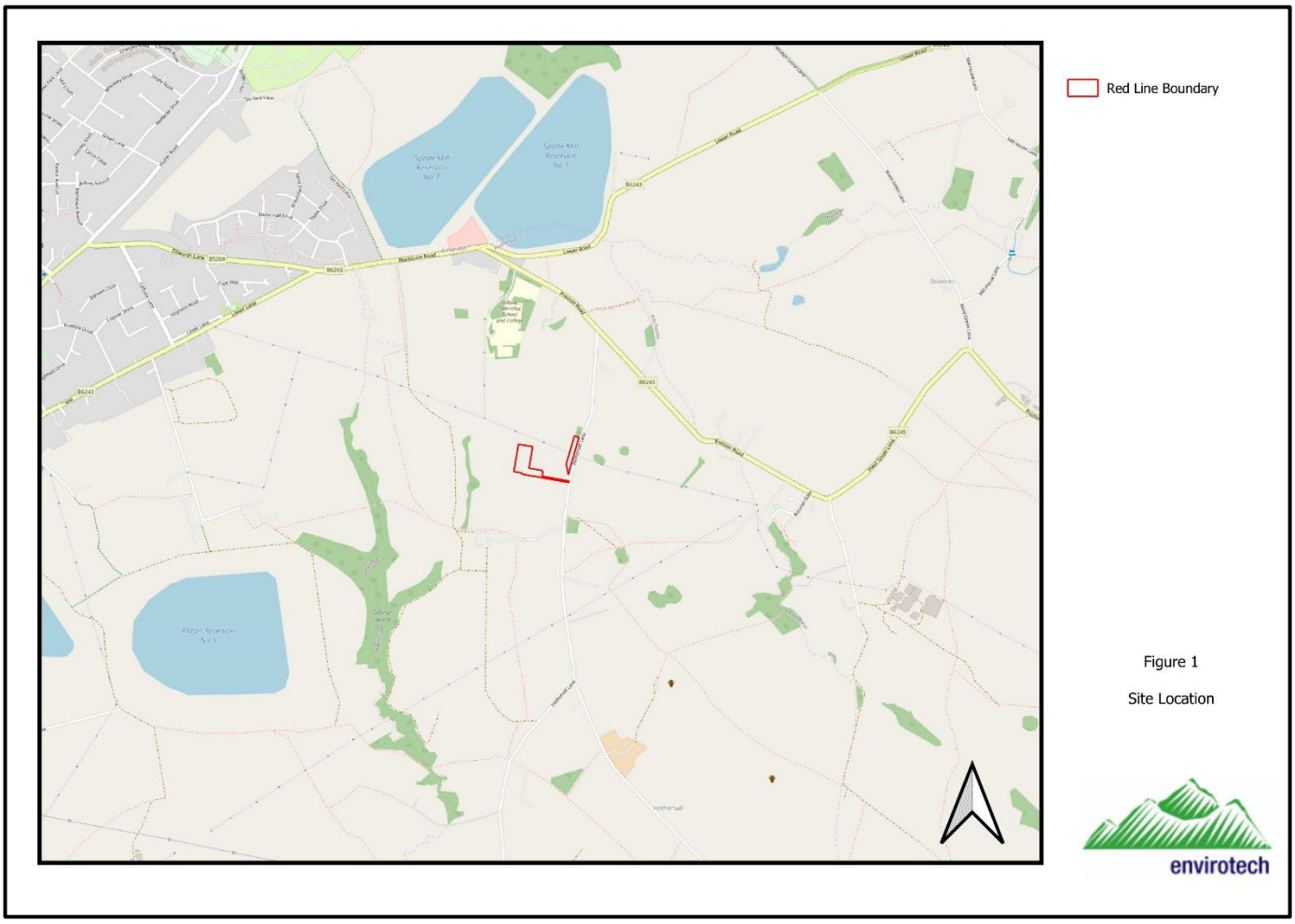
# 2. INTRODUCTION

## *2.1 Background*

2.1.1 In February 2026 Envirotech NW Ltd were commissioned by ML Planning Consultancy Ltd to carry out a Preliminary Ecological Appraisal of Land off Hothersall Lane, Preston, central grid reference SD 61957 36689 (Figure 1). A site investigation was undertaken and a report compiled which includes recommendations for any future actions and or mitigation required.

2.1.2 The survey was requested in connection with the proposed conversion of an existing agricultural building to equestrian use.

2.1.3 There will also be construction of a sand paddock and small parking area adjacent.



## *2.2 Objectives*

2.2.1 The main objectives of the study were:

- The completion of a UKHabs Version 2 (UKHab Ltd (2023)) survey including the preparation of a vegetation and habitat map of the site and the immediate surrounding area.
- The survey and assessment of all habitats for statutorily protected species.
- An evaluation of the ecological significance of the site.
- The identification of any potential development constraints and the specification of the scope of mitigation and enhancement required in accordance with wildlife legislation, planning policy and other relevant guidance, and;
- The identification of any further surveys or precautionary assessments that may be required prior to the commencement of any development activities.

# 3. METHODOLOGY AND SOURCES OF INFORMATION

## *3.1 Data Search*

3.1.1 The Envirotech dataset, National Biodiversity Network (NBN) and the Multi-Agency Geographic Information for the Countryside (MAGIC) were searched to establish the presence of any records of statutorily protected, notable or rare species, and any designated sites of international, national, regional or local importance within a 2km radius of the site boundary.

3.1.2 The Envirotech dataset is compiled from extensive field surveys from the period 2004-present, as well as records obtained from third parties during this time.

3.1.3 Google Earth and Google Street View were consulted to establish the presence of any features of ecological importance within the local area.

3.1.4 Due to the scale of development, in accordance with CIEEM guidelines, a data search of the county records centre was not required. The likely presence and impact on protected species could be adequately determined from the level of data search undertaken.

## *3.2 Vegetation and Habitats*

3.2.1 A vegetation and habitat map was produced for the site and the immediate surrounding area. The mapping is based on the UKHabs V2 survey and reporting methodology.

3.2.2 Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the Wildlife and Countryside Act (1981) and indicators of important and uncommon plant communities. All plant nomenclature follows Stace (2019).

3.2.3 Searches were carried out for the presence of invasive species, including those listed on Schedule 9 of the Wildlife and Countryside Act (1981), namely Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*) and giant hogweed (*Heracleum mantegazzianum*) on terrestrial habitat and aquatic species such as floating pennywort (*Hydrocotyle ranunculoides*), water hyacinth (*Eichhornia crassipes*) and New Zealand pygmyweed (*Crassula helmsii*).

3.2.4 The survey was also informed by questioning the landowner/site agent to ascertain the recent history of the site.

3.2.5 Habitats of Principal Importance (HPI) were cross referenced with Natural England's inventory against the site boundary and where found ground truthed.

## *3.3 Timing and Personnel*

3.3.1 During the visit, weather conditions were suitable for the survey types undertaken.

3.3.2 The site and surrounding land were visited on 19th February 2026 by: -

- (BF) Mr Bradley Foster MEnv (Hons)
  Natural England Bat Class Licence (Level 1)
  Natural England Barn Owl Licence (Agent)
  Natural England Great Crested Newt Licence (Level 1)

# 4. SPECIES SURVEY METHODOLOGY

## *4.1 Amphibian*

4.1.1 Great crested newts (*Triturus cristatus*) are protected under Schedule 2 of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and Schedule 5 of the Wildlife & Countryside Act (1981).

4.1.2 Water-bodies located within or adjacent to the study area were identified and where access was possible were assessed for their potential to support great crested newts.

4.1.3 The criteria used in the assessment are based on those contained in the Herpetofauna Workers Manual and Oldham et al, 2000, and in applying these criteria a precautionary approach was adopted. Following the criteria developed by Oldham et al (2000), the HSI tool developed for use with great crested newts and forming part of Natural England's Licensing process was used to determine the suitability of ponds for great crested newts.

4.1.4 The pond assessment was undertaken in order to determine which water-bodies, based on their potential to support great crested newts, should be subject to presence/absence surveys.

4.1.5 From a review of Ordnance Survey maps, modern satellite imagery and having ground truthed the site, there are nine known ponds within a 250m radius of the site boundary.

## *4.2 Badger*

4.2.1 Badgers (*Meles meles*) and their setts are protected under the Protection of Badgers Act (1992). This legislation arises from animal welfare issues (rather than on the basis of nature conservation grounds) and protects badgers from being killed, injured or disturbed whilst occupying a sett.

4.2.2 A disturbance to badgers in their setts may occur as a result of construction operations. Natural England recommends that the use of heavy machinery in proximity of a sett entrance should be avoided, with a 'disturbance free-zone' being established.

4.2.3 The degree of disturbance attributed to construction activity is a function of the background level of activity badgers are accustomed to and that which will be attributed to a proposed activity. The "disturbance free zone" is therefore site specific.

4.2.4 The survey for badgers comprised an assessment of all suitable habitat within and outside the study area boundary (where this was possible) to a distance of 30m for indications of use by badgers.

4.2.5 Signs of badgers which were searched for included:

- Setts - 'D' shaped entrances at least 25cms wide and wider than they are high with large spoil mounds
- Discarded bedding at sett entrances (this includes grass and leaves)
- Scratching posts on shrubs and trees close to a sett entrance

- The presence of badger hairs which are coarse, up to 100mm long with a long black section and a white tip
- Dung pit latrines and footprints
- Habitual runs through vegetation and beneath fences
- Hedgehog carcases

## *4.3 Bats*

4.3.1 All British bat species are fully protected under Schedule 5 of the Wildlife and Countryside Act (1981), and are included on Schedule 2 of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019, as a Protected Species. Taken together, these pieces of legislation make it an offence to:

- Intentionally or recklessly kill, injure or capture bats;
- Deliberately or recklessly disturb bats (whether in a roost or not);
- Damage, destroy or obstruct access to bat roosts.

4.3.2 The Bat Conservation Trust Collins, J. (ed) (2023) issued guidelines on bat survey methodology, a key feature of their recommendation is for the undertaking of a pre-survey assessment – an initial desk-study and a walkover assessment of the survey area and its surrounding area to identify the relative value of the habitats present for bats and likely commuting routes. This is to be followed by a survey program that is appropriate to the likely level of bat activity within the survey area to be determined by and based on the experience of the surveyor.

4.3.3 The potential value of the survey area for foraging bats was assessed through consideration of two main factors: professional knowledge of bat ecology and foraging behaviour in combination with the geographical location, topography and habitats present within the survey area and surrounds.

4.3.4 All trees and structures on and within the survey area boundary were assessed for their potential to support roosting or hibernating bats. This comprised a close inspection of all trees and buildings on the site to allow an assessment of their potential to be used by bats to be made by a licensed surveyor.

4.3.5 The site contains a modern agricultural building, which was checked for any recent or historic evidence of use by roosting bats. Survey methods included a visual assessment of the building from the ground and ladders, using binoculars, a torch and endoscope by a licensed bat surveyor.

4.3.6 A comprehensive internal inspection of the agricultural building was undertaken, which included inspection of the building's masonry and internal roof structure.

4.3.7 An assessment of these building for use by roosting bats concluded that the reasonable probable absence of bats could be determined from the level of survey effort undertaken. We do not consider there to be a need for additional emergence activity surveys at this time.

4.3.8 Trees were all assessed in accordance with Collins, J. (ed) (2023) and categorised as No potential, PRF-I or PRF-M. PRF I is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats. PRF M is suitable for multiple bats and may therefore be used by a maternity colony.

## *4.4 Birds*

4.4.1 All breeding birds, other than pest species, are protected under the Wildlife and Countryside Act of 1981 when building a nest, rearing young or sitting on eggs. Some bird species, such as barn owl (*Tyto alba*), are protected when near an active nest site. Several birds are listed as Species of Principal Importance (SPI).

4.4.2 Bird species and behaviour were noted during the field survey. All areas were covered equally, in order to avoid the subjective survey of better quality 'bird habitat'.

## *4.5 Brown Hare*

4.5.1 The brown hare (*Lepus europaeus*) is a SPI.

4.5.2 The survey method involved walking boundaries and surveying with binoculars. The survey was conducted at a suitable distance to ensure that the hares were not disturbed. Generally, surveys were undertaken throughout the early afternoon and evening when hares are thought to be most active and feeding.

4.5.3 Where present the number of brown hares in each field or hedgerow was recorded, together with the nature and use of the field, climatic conditions and time of day. The presence of forms and faeces where present were also recorded.

## *4.6 Invertebrates*

4.6.1 A general assessment was made of the study area's suitability for supporting invertebrates during the survey. The study area's lack of habitat diversity, species-poor composition and uniformity of vegetation structure (i.e., lack of variation in height and microtopography) resulted in our belief that a low diversity of invertebrates would be likely to occur across the site.

4.6.2 The extent of sampling was limited in that it could be confirmed that no SPI would be likely to be affected by the proposal.

## *4.7 Reptiles*

4.7.1 All native reptiles are protected in Britain under the Wildlife and Countryside Act of 1981. It is an offence to intentionally kill, injure, sell or advertise to sell any of the six native species.

4.7.2 The survey for these species was based on assessing the habitat type and suitability of the site. This comprised an assessment of satellite imagery for the site and surrounding area as well as comparison of the results from the records searches with habitat types.

The general habitat at the site was evaluated in terms of its suitability to reptiles for foraging or breeding.

4.7.3 Habitat at the site was not considered sufficiently suitable for full presence/absence surveys to be warranted.

## *4.8 Survey limitations*

4.8.1 The survey was undertaken in winter. At this time of year plant species are less easily identified and the activity of some species is reduced.

4.8.2 Due to the habitats present on site however there were no significant constraints in respect of identifying the botanical interest of the site.

4.8.3 The duration, extent and scope of the surveys were considered sufficient to plan appropriate mitigation and recommend additional precautionary survey work required prior to the commencement of work.

4.8.4 No significant survey limitations were encountered.

# 5. RESULTS

## *5.1 Data Search*

5.1.1 Envirotech hold no records of protected or notable species for the site. There are however records of protected or notable species within 2km (Figure 2). These are discussed in the relevant sections below.

5.1.2 The nearest non-statutory protected site is the College Wood Biological Heritage Site (BHS) ~400m to the west and the Spade Mill Reservoirs BHS ~525m north of the site. Priority woodland (including the ancient woodland at College Wood) is also located within a ~400m radius of the redline boundary (Figure 3).

5.1.3 There are no statutory protected sites within a 2km radius of the site boundary (Figure 4).


Figure 2

Protected and
Notable Species

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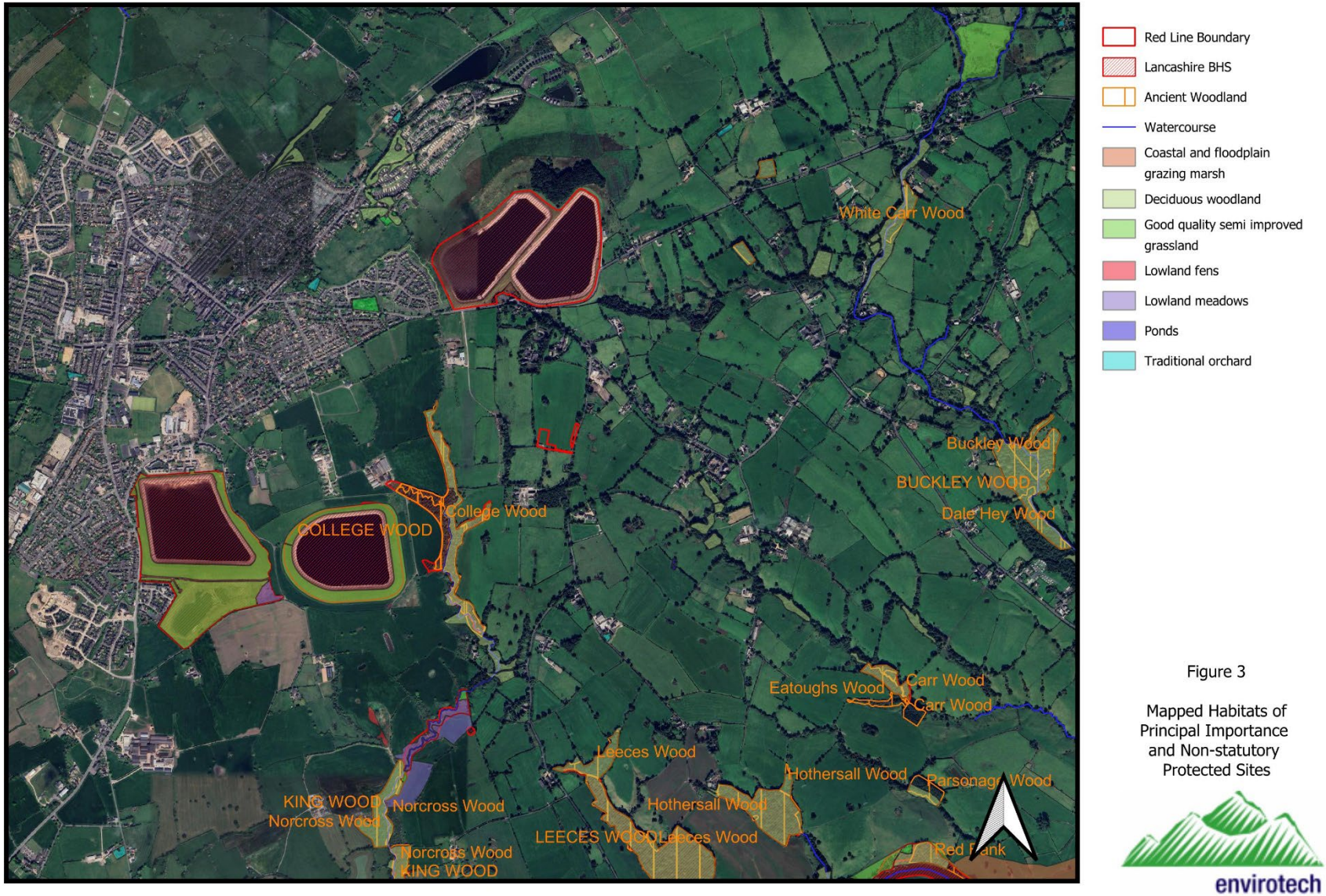


Figure 3

Mapped Habitats of Principal Importance and Non-statutory Protected Sites

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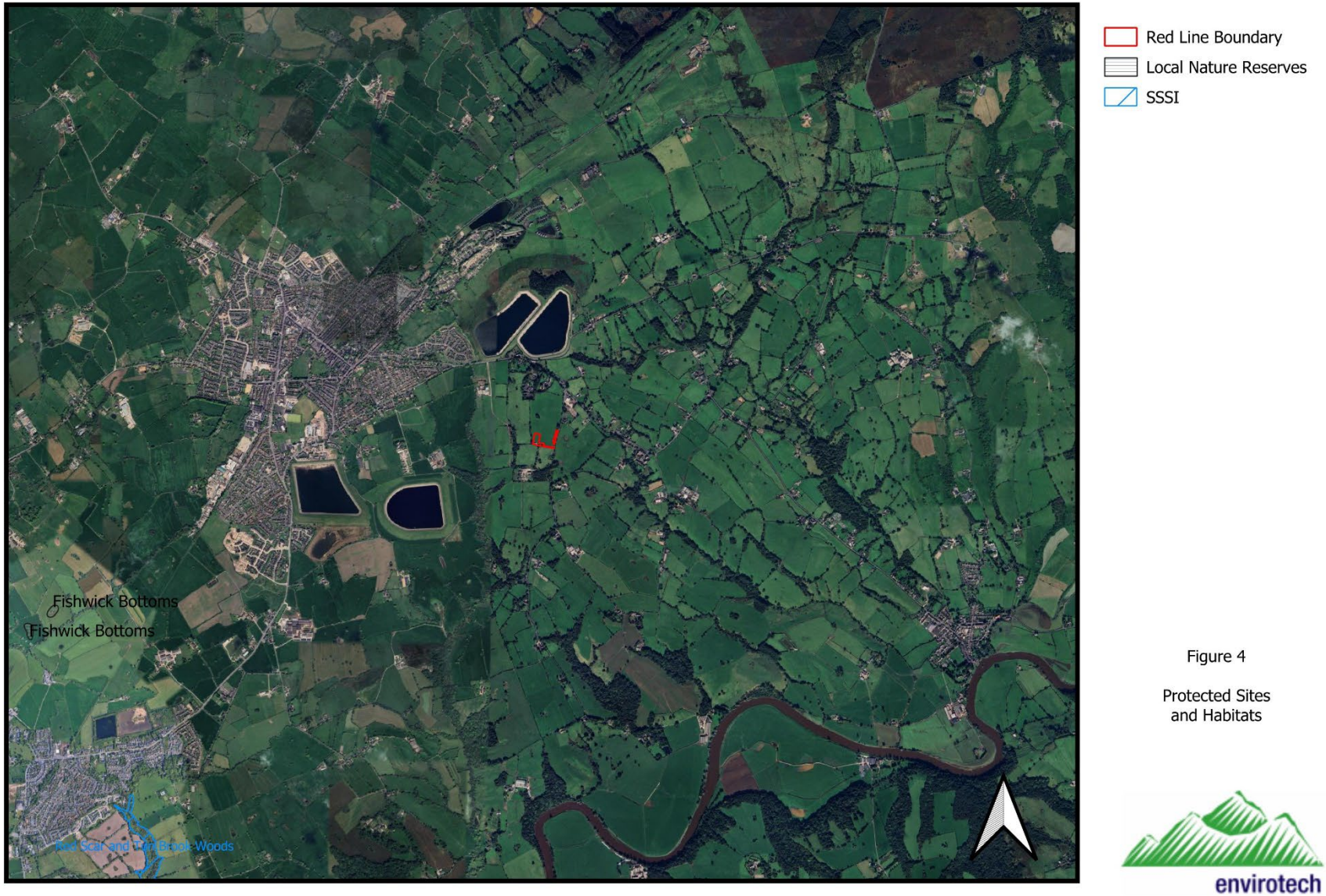


Figure 4

Protected Sites
and Habitats

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# 6. UKHabs V2 SURVEY RESULTS

## *6.1 Habitat Results*

6.1.1 A drone was overflown the site on 19th February 2026. This produced a number of images which were stitched together to form an orthomosaic map, providing upto date aerial imagery of the site from which UKHabs habitat mapping has been based. Figure 5a shows the hi-resolution imagery overlain Google Earth.

6.1.2 Figure 5b shows an aerial view of the site.

6.1.3 The site comprises an access track and agricultural storage building, located within a wider field of modified grassland cut for silage/haylage.

6.1.4 See Figure 6 for the UK Habs V2 Plan and Table 1 for the descriptive Target Notes.

Red Line Boundary

Figure 5a

Orthomosaic Map

19/02/2026

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**Figure 5b**- *Aerial view of the core development area (looking south-west)*

| Target Note | Description | Comment |
|---|---|---|
| TN1 | Modified Grassland | It is proposed a sand paddock is constructed to the north of the site. Grassland comprises part of a wider silage field containing Perennial Ryegrass (*Lolium perenne)*, Timothy-grass *(Phleum pratense)*, Creeping Buttercup *(Ranunculus repens)*, Broadleaved Dock *(Rumex obtusifolius)*, Chickweed *(Stellaria media)* and Mouse ear *(Cerastium fontanum)*, with occasional Common Bent *(Agrostis capillaris)* and Cow Parsley *(Anthriscus sylvestris)* to the field edges. |
| TN2 | Agricultural Building | A modern steel portal frame agricultural building is located to the south-west corner of the site, comprising block-built walls, timber cladding and a pitched fibre cement roof. The building is currently used to store round hay bales. It is proposed the building is converted to equestrian use. |
| TN3 | Access Track | A hardcore/permeable access track connects the agricultural building to Hothersall Lane ~125m to the east. |
| TN4 | Offsetting Area | It is proposed an area of the silage field to the north-east is removed from agricultural production and replaced with mixed scrub planting. |

**Table 1** *Details of Target Notes.*


Red Line Boundary

Target Notes

g4 Modified Grassland

u1b Developed Land
Sealed surface

u1c Artificial Unvegetated
Unsealed Surface

Figure 6

UK Habs V2 Map
Pre- Development

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| | |
|---|---|
|  | The site is reached via an existing access track and metal field gate off Hothersall Lane |
|  | The site is located within a wider field of modified grassland cut for silage/haylage |
|  | The sward is short and uniform, being dominated by palatable and agriculturally productive grasses |

| | |
|---|---|
|  | The field contains few herbaceous forbs, possessing a poor species diversity (<6 vascular species per m2) |
|  | A modern portal frame agricultural building is located to the south-west corner of the site boundary<br><br>It is proposed the building is converted to equestrian use |
|  | The building is currently used to store round hay bales |

The agricultural building possesses a pitched fibre cement roof and is cladded in timber weatherboarding

Rear of the agricultural building

| | |
|---|---|
|  | It is proposed a sand paddock and small parking/turning area are constructed to the north of the agricultural building |

**Table 2** *Photographs*

## *6.2 Vegetation*

6.2.1 Details of the plant species found on site are included in the target notes. Species recorded are all commonly occurring and undoubtedly occur elsewhere in similar habitats in the local area.

6.2.2 The modified grassland has a very low species diversity and ecological value, being dominated by palatable and agriculturally productive grasses. The field's species assemblage is indicative of agricultural improvement/slurry spreading, overseeding and other disturbance. This habitat does not constitute a Habitat of Principal Importance (HPI).

6.2.3 There are no hedgerows within the redline boundary.

6.2.4 There is no tree stock within the redline boundary.

6.2.5 There is no evidence of Japanese knotweed, giant hogweed or Himalayan balsam on the site. No other invasive or notable weed species listed on Schedule 9 (Section 14) of the Wildlife and Countryside Act (1981) (as amended) was identified within the site or adjacent land.

## *6.3 Amphibian*

6.3.1 There are no records for amphibians within 2km of the site on the Envirotech dataset. The nearest GCN record is located ~2.1km south-west of the site boundary.

6.3.2 From a review of Ordnance Survey maps, modern satellite imagery and having ground truthed the site, there are nine known ponds within a 250m radius of the site boundary.

6.3.3 With the exception of Ponds 1 and 2, most ponds are located >100m from the redline boundary. The location of Ponds 1-9 is shown on Figure 7 below.

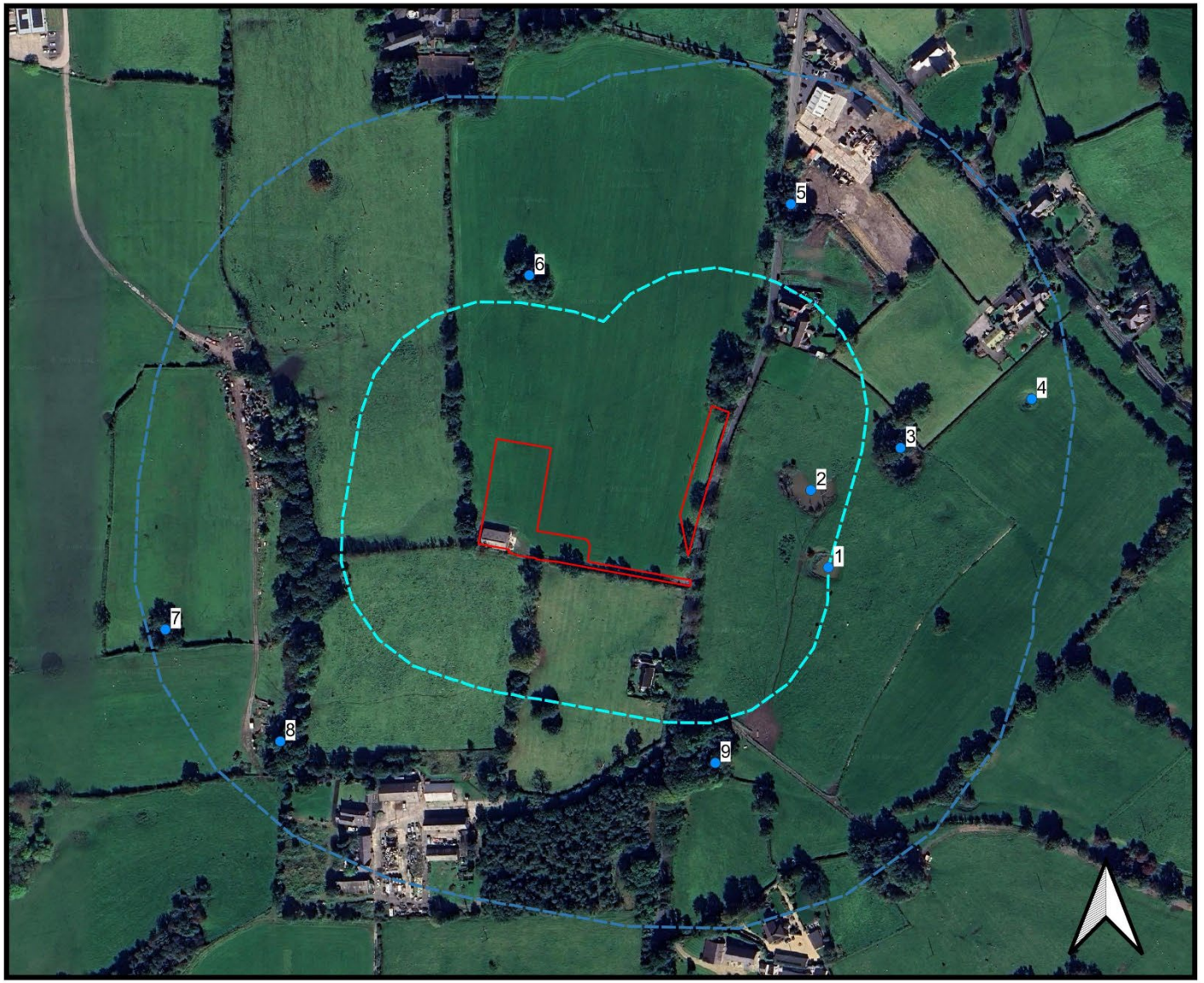


Figure 7

Site, Buffer Zones and Ponds

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6.3.4 Ponds 1-4, 6 and 7 comprise scattered field ponds. Ponds 5, 8 and 9 are situated within parcels of surrounding woodland. Only Pond 6 is located within the applicant's land ownership boundary and could therefore be fully assessed during the survey. Ponds 1, 2 and 5 were however visually assessed from Hothersall Lane.

6.3.5 Images of Ponds 1, 2, 5 and 6 are shown in Table 3 below.

| | |
|---|---|
|   | Ponds 1 and 2 comprise a series of open field ponds surrounded by Hawthorn *(Crataegus monogyna)*, Sycamore *(Acer pseudoplatanus)* and standing deadwood<br><br>It is likely Ponds 1 and 2 regularly dry out<br><br>Ponds 1 and 2 are located beyond the applicant's land ownership boundary and were assessed from Hothersall Lane |

| | |
|---|---|
|  | Pond 5 is situated within a coppice of woodland off Hothersall Lane comprising Alder *(Alnus glutinosa)*, Red Osier Dogwood *(Cornus sericea)*, Goat Willow *(Salix caprea)* and Silver Birch *(Betula pendula)* |
|  | The waterbody comprises a narrow channel/ditch adjacent a storage compound<br><br>It is possible the pond has been diverted and/or partially infilled<br><br>There is limited vegetation cover east of Pond 5 |
|  | |

| | |
|---|---|
|  <br>  | Pond 6 is located within the same field as the application, comprising a prominent field pit oversailed by Alder, Hawthorn, Ash *(Fraxinus excelsior)*, Sycamore *(Acer pseudoplatanus)* and Goat Willow<br><br>Several trees are leaning over the pond<br><br>Piles of brash and fallen deadwood are occasional<br><br>The pond possesses a shallow water depth and was choked with leaf litter and other organic material<br><br>Vegetation around the perimeter of the pond was limited to beds of Nettle *(Urtica dioica)* and Creeping thistle *(Cirsium arvense)* at the time of surveying |
|  | Pond 6 is actively poached by livestock |

| | |
|---|---|
|  | Water flows into the pond from a culvert<br><br>Marginal and aquatic vegetation within the pond was limited to trace amounts of Brooklime (*Veronica beccabunga)* and Common Water-starwort *(Callitriche stagnalis)* |

**Table 3**- *Pond images*

6.3.6 Following the criteria developed by Oldham et al (2000), the HSI tool developed for use with great crested newts and forming part of Natural England's Licensing process was used to determine the suitability of the pond for great crested newts. The HSI was developed as a tool to aid fieldworkers to give ponds and their surrounding habitat a numerical score in terms of their suitability for great crested newts. See Table 3.

| **Pond 1** | **1** | **2** | **5** | **6** |
|---|---|---|---|---|
| Location | 1 | 1 | 1 | 1 |
| Pond area | 0.6 | 0.95 | 0.6 | 0.95 |
| Pond drying | 0.5 | 0.5 | 0.9 | 0.9 |
| Water quality | 0.33 | 0.33 | 0.33 | 0.33 |
| Shade | 1 | 1 | 0.2 | 0.2 |
| Fowl | 0.01 | 0.01 | 0.67 | 0.67 |
| Fish | 1 | 1 | 1 | 1 |
| Ponds | 1 | 1 | 1 | 1 |
| Terrestrial habitat | 0.33 | 0.33 | 0.33 | 0.33 |
| Macrophytes | - | - | - | - |
| *HSI* | 0.41 | 0.43 | 0.58 | 0.61 |

**Table 3** *Results of Habitat Suitability Index.*

6.3.7 Within the Natural England Method Statement application form for great crested newt Licences, guidance states the following approach (Natural England, 2008):

6.3.8 'If a pond has a very low HSI score (say <0.5) then there would typically be a minimal chance of great crested newt presence. Hence, with due care and in limited circumstances, the HSI might be used in the absence of newt survey to help conclude that an offence is highly unlikely and therefore work could proceed in that area without a licence. This application of the HSI should only be used where the predicted impacts - were newts to be present - would be low (eg, development at least 100m from pond,

permanent habitat loss <0.5ha or temporary habitat loss <5ha). The developer and consultant should realise that there would still be a risk of committing an offence, but it would typically be so low as to be negligible. Obviously, note that if HSI >0.5, this is not confirmation of newt presence; a newt survey would be required to confirm this'.

6.3.9 Ponds 1 and 2 score poor (<0.5) for GCN suitability, comprising two regularly drying field ponds subject to waterfowl. Ponds are surrounded by open pasture/modified grassland.

6.3.10 Pond 5 scores below average (0.5-0.59) and Pond 6 above average (0.6-0.69) for GCN suitability, encompassing more permanent (albeit shaded) ponds. Water quality is considered to be poor in both ponds given the influx of runoff from Hothersall Lane (in relation to Pond 5) and culverted surface water (in relation to Pond 6). Ponds 5 and 6 are heavily shaded by trees and shrubs and are therefore likely to possess minimal macrophytes (and therefore few egg laying opportunities).

6.3.11 Following a precautionary approach, and as the survey of the site was undertaken outside the optimum period for presence/absence surveys (and eDNA testing can only be undertaken between 15th April and 30th June), Natural England's rapid risk assessment tool was used for the site (Figure 8). This tool takes a worst-case scenario approach by assuming GCN are present in all ponds considered (Ponds 1-9), factoring in their distance from the proposal and the area of land lost or damaged (either permanently or temporarily).

6.3.12 The area of land judged to be permanently lost/damaged as a result of the proposal is estimated to be $\leq$3200m$^2$ (0.32ha). This area factors in the footprint of the proposed grasscrete parking area, sand paddock and SUDS area.

| **Component** | **Likely effect** (select one for each component; select the most harmful option if more than one is likely; lists are in order of | Notional offence probability score |
|---|---|---|
| Great crested newt breeding pond(s) | No effect | 0 |
| Land within 100m of any breeding pond(s) | 0.1 - 0.5 ha lost or damaged | 0.5 |
| Land 100-250m from any breeding pond(s) | 0.1 - 0.5 ha lost or damaged | 0.1 |
| Land >250m from any breeding pond(s) | 0.1 - 0.5 ha lost or damaged | 0.005 |
| Individual great crested newts | No effect | 0 |
| | Maximum: | 0.5 |
| Rapid risk assessment result: | **AMBER: OFFENCE LIKELY** | |

**Figure 8**- *Natural England's Rapid Risk Assessment Tool*

6.3.13 Figure 8 stipulates an amber offence with respect to the development. This relates to a maximum notional probability of 0.5 that GCN will be disturbed, injured, killed, or their resting/breeding places damaged or destroyed as a result of works (should they be present within Ponds 1-9).

6.3.14 The rapid risk assessment tool has however been developed as a general guide only. The tool uses a coarse and simplistic assessment approach, often resulting in the overestimation of some risks. It also fails to consider site-specific details such as the

timing and duration of works, terrestrial habitat quality and the detailed layout of the development with respect to newt resting and dispersal. It also assumes the development proposal concerned will proceed without any precautionary mitigation. Resultingly, it should never be utilised as a substitute for a site-specific risk assessment informed by survey.

6.3.15 The risk to GCN on site as a result of development has therefore likely been overestimated. Most of the site comprises short grassland of minimal value to GCN. The area of additional green land taken for development (<0.32ha) also sits in the middle of the 'likely effect' area range (Figure 8). Whilst GCN are highly mobile species (traversing distances of >1km where habitat connectivity is high), most adult newts typically stay within ~65m of known breeding ponds. Whilst Ponds 1 and 2 are located within 100m of the site's redline boundary, no loss of green space will be undertaken within 150m of the nearest pond.

6.3.16 The core development area has a very low value to amphibians, being open, exposed and dominated by short grassland. Structural diversity at ground level across the site is limited. There are no areas with log, rubble piles or compost heaps which would be particularly favourable to amphibians.

6.3.17 Amphibians would be unlikely to attempt to cross the site as it comprises an area that is mostly open with uniform length vegetation. Whilst not a physical barrier to the dispersal of amphibians, the site is regarded as being a potentially hostile environment to them.

6.3.18 Whilst the proposed development is unlikely to result in the permanent loss of or a substantial negative effect on any waterbodies, considerations regarding the methods, duration and/or timing of works should all however be made. These are discussed in Section 7.2.

## *6.4 Badger*

6.4.1 There are no records of badgers within a 2km radius of the site on the Envirotech dataset.

6.4.2 Badger setts do not occur on site and a lack of feeding signs or runs across the site would suggest that they do not occur within 30m of site boundaries.

6.4.3 The proposed development will not impact on any existing badger runs or setts. The porosity of the surrounding fields to the passage of badgers will not be affected.

## *6.5 Bats*

6.5.1 There are three records of two species of bat within a 2km radius of the site on the Envirotech dataset. Records relate to Common Pipistrelle *(Pipistrellus pipistrellus)* and Brown Long-Eared *(Plecotus auritus)*.

6.5.2 The foraging habitat within the core development area is considered to possess a low value to bats. The modified grassland offers limited foraging opportunities, although boundary vegetation and small stepping stones of nearby woodland will provide occasional foraging and commuting opportunities. Habitat within the core development area is however poor in terms of its structure, diversity and interconnectivity.

6.5.3 Whilst the field's boundary habitat is the most structurally diverse, it is not considered exceptional in the local area. More extensive areas of medium and high-quality habitat occur locally, such as the areas of enclosed woodland to the south and west.

6.5.4 It is not considered there would be significant degradation of foraging habitat as a result of the proposal given all hedgerows and trees to the field boundaries are located beyond the site and will not be impacted by development.

6.5.5 The existing agricultural building comprises a modern steel portal frame building with block-built walls, timber weatherboarding and a pitched fibre cement roof.

6.5.6 The building is open-fronted to its northern elevation; its corrugated fibre cement roof containing a number of semi-translucent roof panels.

6.5.7 The building possesses dual timber ridge boards and is ventilated beneath the roof apex. The building is currently utilised to store round hay bales.

6.5.8 No recent or historic evidence of roosting bats such as bat droppings, staining or prey remains were identified on site. No suitable potential roost features were identified to the internal/external walls, eaves or roof structure.

6.5.9 Factoring in the simple, mostly single-skin construction of the agricultural building, its well-ventilated construction type and the degree of light ingress/exposure, we would advise that the building possesses a negligible potential for use by roosting bats.

6.5.10 It is understood the building will be retained, with addition of internal stalls only. There will be no work or impacts to the external elements of the building or the wider roof structure.

6.5.11 There is no tree stock within the site available for roosting bats.

6.5.12 We consider bat species are highly unlikely to rely on the site for feeding but may occur in the local area. Roosting by bats will not occur within the redline boundary.

## *6.6 Birds*

6.6.1 There are numerous records of birds within a 2km radius of the site on the Envirotech dataset.

6.6.2 Common garden bards and those indicative of urban and farmland fringes are undoubtedly present within the local area and are likely to frequent the site. For example, there are extensive records of Blue tit *(Cyanistes caeruleus),* Goldfinch *(Carduelis carduelis)*, Greenfinch *(Chloris chloris),* House Sparrow *(Passer domesticus)* and Starling *(Sturnus vulgaris)*.

6.6.3 Birds which rely on buildings for nesting such as Swallow and House martin may occur on site although no old nest sites were identified within the agricultural building at the time of the survey. The remainder of the site is unlikely to be used by nesting birds due to the lack of vegetative cover and high disturbance levels.

6.6.4 There is no tree stock within the site boundary which would support cavity hole nesting species such as woodpeckers and treecreeper.

6.6.5 A risk assessment of the site in respect of its future potential for and value to nesting birds could be adequately made.

6.6.6 Precautionary mitigation is considered appropriate. The landscaping scheme should include native fruit and/or flowering species such as rowan (*Sorbus aucuparia*) which are will provide food for birds in the winter.

6.6.7 The habitat on site is not considered to be of anything more than of local significance, habitats present are well represented in the local area. The impact on nesting birds is therefore considered likely to be minor.

## *6.7 Brown Hare*

6.7.1 Brown hare are a SPI. There are no records of Brown Hare within a 2km radius of the site boundary on the Envirotech dataset.

6.7.2 No indication of brown hares was recorded on the site.

6.7.3 The site boundary has some potential for brown hares to create forms, but use of the core development area is likely to be limited due to its open and exposed nature and regular human presence.

6.7.4 A risk assessment of the site in respect of its future potential for and value to brown hares could be adequately made. We consider the risk to brown hares is very low.

## *6.8 Invertebrates*

6.8.1 There are 704 records of notable invertebrates within 2km of the site on the NBN database.

6.8.2 No deadwood or vegetation was recorded on site which would provide an important resource for invertebrates within the local area.

6.8.3 Thatched vegetation and more established tussocks of grass and Cow parsley stems are located to the field verges which may provide overwintering sites for insects. Such opportunities are unlikely to be significant however and will not be impacted by development.

6.8.4 Given the poor-quality habitats contained within the site in comparison to the wider area, it is not considered that this site is of any local significance for invertebrates.

6.8.5 The significance of the site to invertebrates is likely to be limited in the local context although the habitat on site will undoubtedly support common invertebrate species. Mitigation can be incorporated into the design and landscaping scheme with the careful selection of plant species and substrates for the garden areas.

## *6.9 Reptiles*

6.9.1 There are no records for reptiles within 2km of the site.

6.9.2 The majority of the site has a very low value to reptiles being devoid of significant vegetation cover and microhabitats at ground level. There are no areas of the core development area which would be particularly favourable to reptiles.

6.9.3 No indication of reptiles was recorded at the site.

6.9.4 No specific mitigation for these species is considered necessary.

6.9.5 Precautionary mitigation would be appropriate in respect of construction activities so as to ensure reasonable avoidance measures are taken to avoid the killing or injury of these species.

## *6.10 Other*

6.10.1 The site may be crossed by species such as fox (*Vulpes vulpes*), with rabbit (*Oryctolagus cuniculus*) and Roe deer *(Capreolus capreolus)* known to occur locally.

6.10.2 The field verges and bordering hedgerows may provide suitable habitat for small mammals such as field vole (*Microtus agrestis*) and Hedgehog *(Erinaceus Europaeus),* but such areas are located beyond the site boundary and will not be impacted.

## *6.11 Statutory and Non-Statutory Sites*

Direct Impacts:

6.11.1 There are no statutory or non-statutory sites which are connected to the site such that site development would directly affect the dispersal of species between them or directly impact upon their integrity.

6.11.2 The habitats on site do not represent or are linked to those found in any of the statutory or non-statutory sites locally.

Indirect Impacts:

6.11.3 There are no statutory or non-statutory sites which are connected to the site such that site development would indirectly affect the dispersal of species between them or indirectly impact upon their integrity.

# 7. MITIGATION/RECOMMENDATIONS

## *7.1 Compensatory planting and habitat enhancement*

7.1.1 The roots of all trees and hedgerows to the site boundaries should be adequately protected during work in accordance with industry standards. All boundary trees and hedgerows should as far as possible be retained in the scheme.

7.1.2 It is understood a 0.13ha area of grassland to the eastern edge of the field is to be taken out of agricultural production, being replaced with mixed native scrub. Scrub will buffer the adjacent coppice to the north, improving habitat connectivity between grassland, hedgerow and woodland habitats.

## *7.2 Amphibians*

7.2.1 The following mitigation should be followed in order to minimise the impact of the development proposal on GCN. We consider that non-licensed avoidance measures, in addition to precautionary mitigation can be utilised in order to prevent an offence from being committed: -

- Vegetation clearance should be undertaken between February and October when temperatures are >5ºC. This is when amphibians are active/mobile and therefore able to avoid injury.

- No features offering potential places of shelter or refuge will be disturbed during the winter hibernation period (October through February) when amphibians are likely to be overwintering and are most vulnerable to disturbance.

- Should groundworks commence between October and February, then efforts should be made to keep the grassland short over this period (as is currently the case).

- All work must take place during daylight hours as amphibians are more likely to be commuting overnight and this will ensure the risk to any amphibians commuting through the site will be minimised.

- Any excavations should be backfilled before nightfall, or exit ramps should be provided (to allow newts to exit easily).

- Construction traffic should not enter or leave the site during the hours of darkness.

- The duration of any groundworks should be as short as feasibly possible.

- Materials used for construction should be stored on compacted ground/hardstanding only. Otherwise, GCN and other amphibians may take refuge within these piles given their protection from frost and flooding.

- The creation of any piles of earth, materials and rubble which could form potential artificial hibernacula and refuge should be avoided at all times. It is recommended that any spoil or rubble will be removed immediately to skips, or on hard standing or short

grass. This will ensure that no potential amphibian hibernation or resting sites are created.

- Should GCN be found during work within the construction area all work should cease and the ecological consultant for this project should be consulted prior to work recommencing.

## *7.3 Badger*

7.3.1 Badger setts are known to occur within 2km of the site. These setts will be undisturbed by work but in order to minimise impacts on badgers passing over the site the following points should also be followed.

- All work must take place during daylight hours as badgers are more likely to be commuting over the site at night and this will ensure the risk to any badgers passing through the site will be minimised.

- Should any trenches and excavations be required, an escape route for animals that enter the trench must be provided, especially if left open overnight. Ramps should be no greater than of 45 degrees in angle. Ideally, any holes should be securely covered. This will ensure badgers are not trapped during work.

- All excavations left open overnight or longer should be checked for animals prior to the continuation of works or infilling. Back filling should be completed immediately after any excavations, ideally back filling as an on-going process to the work in hand.

- Boundary fences/walls should incorporate gaps at their base to facilitate the passage of badgers across the site.

## *7.4 Bats*

7.4.1 Work at night should be restricted, new planting within the site should enhance structural diversity and light spill onto the boundary should be minimised.

7.4.2 Overall, it is considered there is more than sufficient scope for mitigation and compensation at the site such that there will be no adverse impact on the favourable conservation status of bats affected by the proposal.

## *7.5 Birds*

7.5.1 Nesting by birds within the development area is considered unlikely to occur. Birds may nest within hedges on the periphery of the site.

7.5.2 Any vegetation to be trimmed or cleared should be checked for nesting birds before it is removed. Ideally this should occur outside the bird nesting period March- September. If vegetation clearance is to occur in the March-September period a check for nesting birds should be conducted first by a suitably qualified individual.

7.5.3 New planting within the site will improve the ecological functionality of the site for breeding birds.

7.5.4 Artificial bird nesting sites for swallow or house martin could be incorporated into the modern agricultural building in suitable locations (such as beneath the eaves or along the modern timber rafters).

7.5.5 If nesting birds are found at the site all site works shall cease and further ecological advice shall be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.

## *7.6 Brown Hares*

7.6.1 There is no requirement for specific mitigation for this species. However, as a precautionary measure, in the unlikely event that any signs of any brown hare activity is subsequently found, all site works should cease and further ecological advice should be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.

7.6.2 The points in respect of not working at night and leaving open trenches with means of escape detailed for badgers are also applicable to this species.

## *7.7 Invertebrates*

7.7.1 The proposed mixed scrub planting with consist of native and wildlife friendly species beneficial to winged insects and other invertebrates.

## *7.8 Reptiles*

7.8.1 There is no requirement for specific mitigation for these species. However, as a precautionary measure, in the unlikely event that any signs of any reptile activity is subsequently found, all site works should cease and further ecological advice should be sought with a view to a detailed method statement and programme of mitigation measures being prepared and implemented.

7.8.2 The points in respect of not leaving open trenches without means of escape detailed for badgers are also applicable to these species.

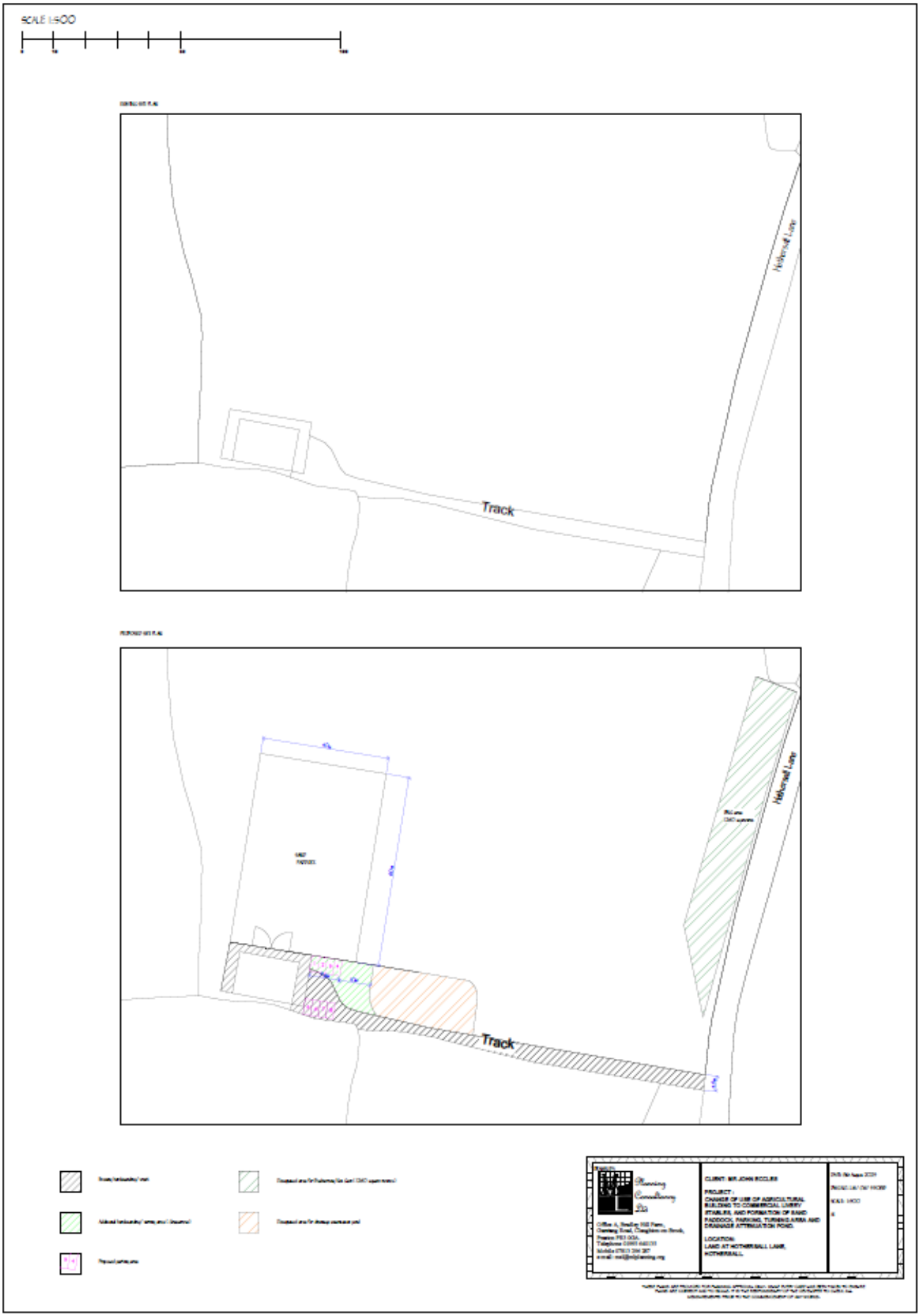


**Figure 9** *Proposed site plan*

# 8. REFERENCES


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