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Environmental and Rural Chartered Surveyors

Ecological Appraisal

Land at Foxfield Farm

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property professionalism worldwide

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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

This report has been printed on recycled paper as part of our commitment to achieving both the ISO 9001 Quality Assurance and ISO 14001 Environmental Assurance standards. Envirotech have been awarded the Gold standard by the Cumbria Business Environmental Network for its Environmental management systems.

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1. EXECUTIVE SUMMARY

1.1.1 Envirotech NW Ltd were commissioned in August 2017 by Mr J Wilkinson to carry out an ecological appraisal of land to the North-east of Foxfields Farm, Stonyhurst, Clitheroe. The survey was undertaken in connection with a planning application for camping pods at the site.

1.1.2 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.

1.1.3 The site was then visited by Envirotech NW Ltd on the 5th September 2017. A full botanical survey of the site was initially undertaken and this was followed by surveys to establish the presence or absence of bats, amphibians, nesting birds, brown hares and badgers at the site or in proximity such that they may be affected by the proposed development.

1.1.4 The plant species assemblages recorded at the site are all common in the local area and of considered of low ecological value.

1.1.5 Low numbers of common bat species were recorded foraging over the site. No bats were recorded roosting on or near site.

1.1.6 Birds are likely to utilise woodland adjacent to the site for nesting between March and September. Any vegetation clearance should therefore be undertaken outside of this period.

1.1.7 No other notable or protected species were recorded on the site.

2. INTRODUCTION

2.1 Background

2.1.1 In August 2017 Envirotech NW Ltd were commissioned by Mr J Wilkinson to carry out an Ecological Appraisal of land to the North-east of Foxfields Farm, Stonyhurst, Clitheroe central grid reference SD 70382 3827 (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 retrospective siting of five camping pods and a mobile toilet/ shower block.

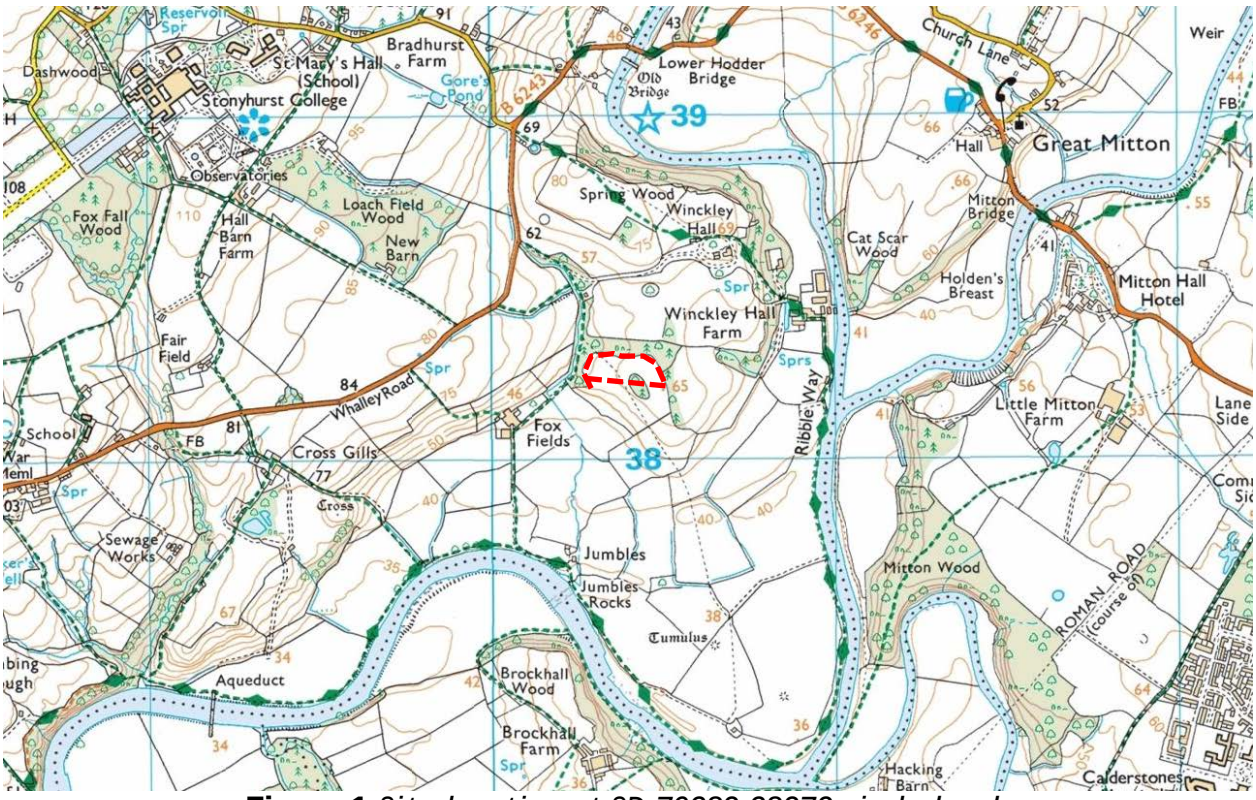

Figure 1 *Site location at SD 70382 38272 circled red.*

2.2 Objectives

2.2.1 The main objectives of the study were:

- The completion of a Phase 1 Habitat 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 Biological Records centre for Lancashire "LERN", the Envirotech dataset, 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.

3.2 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 Joint Nature Conservation Committee Phase 1 Habitat Survey methodology (JNCC 2003).

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 (1991).

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*).

3.3 Timing and Personnel

3.3.1 The site and surrounding land was visited on the 5th September 2017.

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

- (EW) Miss Emma Wainwright BSc (Hons) Grad CIEEM
  Natural England Great Crested Newt Licence (Level 1)
  Unlicenced bat surveyor with three years bat scoping and emergence survey experience
  Accredited Agent on Natural England Bat Class Licence (Level 2)

4. SPECIES SURVEY METHODOLOGY

4.1 Amphibian

4.1.1 Great crested newts (*Triturus cristatus*) are listed on Annexes II and IV of the EC Habitats Directive and Appendix II of the Bern Convention. It is protected under Schedule 2 of the Conservation (Natural Habitats) Regulations (2010) 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 EPS 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.

4.2 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) 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 Natural Habitats) Regulations (2010), as European 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 (Hundt (2012)) and Collins, J. (ed) (2016) 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. This resulted in the production of a map showing habitat quality both on and adjacent to the site.

4.3.4 As a result of the potential suitability of the habitat outside the site and along its boundaries for foraging bats but the low potential for impacts upon bat species due to the proposal being on open and exposed grassland, a single bat activity survey was deemed necessary. The survey was based upon standard guidelines Hundt (2012), Collins, J. (ed) (2016) and NCC (1987) and Mitchell-Jones (2004) and was undertaken in suitable weather conditions by suitably qualified and experienced personnel.

4.3.5 The survey methods comprised a transect route which was walked in order to cover all on-site habitats from sunset until light levels dropped to the extent that bat flight heights could not be determined and walking over the site in the dark was judged to be unsafe.

4.3.6 In addition to the activity survey, 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.

4.3.7 Trees were all assessed in accordance with Collins, J. (ed) (2016).

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 UK and or County BAP species.

4.4.2 Bird species and behaviour was noted during the other field surveys. All areas are covered equally, in order to avoid the subjective survey of better quality 'bird habitat'. All birds displaying breeding behaviour were recorded.

4.5 Brown Hare

4.5.1 The brown hare (*Lepus europaeus*) is a UK BAP species.

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.

4.5.3 There 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 phase 1 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 presence of invertebrates was noted during the other surveys which were undertaken. The extent of sampling was limited in that it could be confirmed that no priority or BAP species 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 Reptile surveys comprising visual encounter surveys were undertaken. Habitat at the site was not considered sufficiently suitable for a full presence/ absence survey to be warranted.

4.8 Survey limitations

4.8.1 The survey was undertaken in early autumn. At this time of year most plant species are easily identified although the activity of some species is reduced.

4.8.2 Due to the habitats present on site there were no significant constraints in respect of identifying the botanical interest of the site. Bats were active at the time of the survey.

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.

4.8.4 No significant survey limitations were encountered.

5. RESULTS

5.1 Data Search

5.1.1 Envirotech and LERN 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 Biological Heritage Site is c.550m to the North of the site is Spring Wood (Figure 3). This is isolated from the site by open pasture fields.

5.1.3 The nearest statutory protected site is Hodder River Section Site of Special Scientific Interest (SSSI) c. 1.5km to the North of the site (Figure 4).

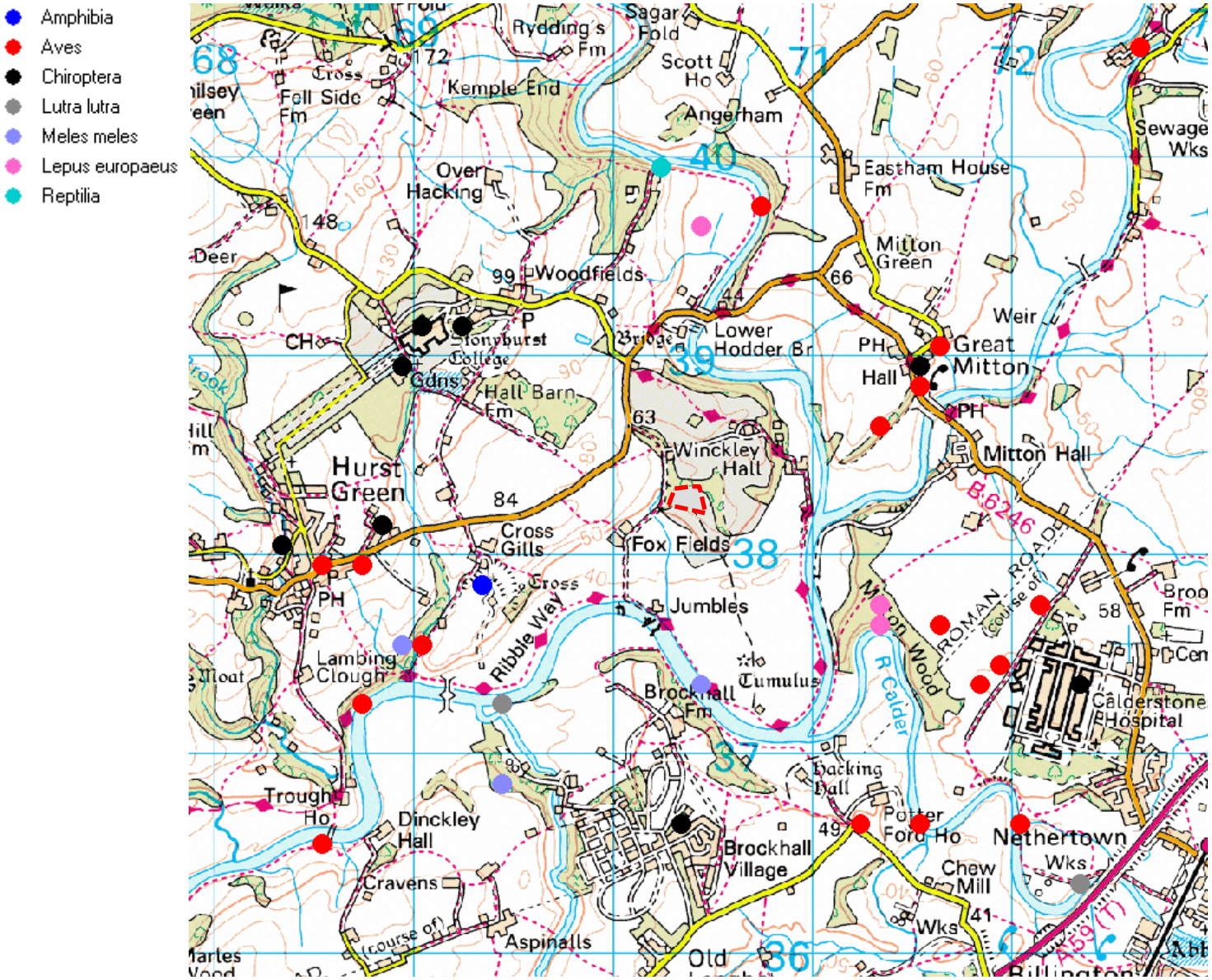

Figure 2 *Notable species records, site location is outlined red.*

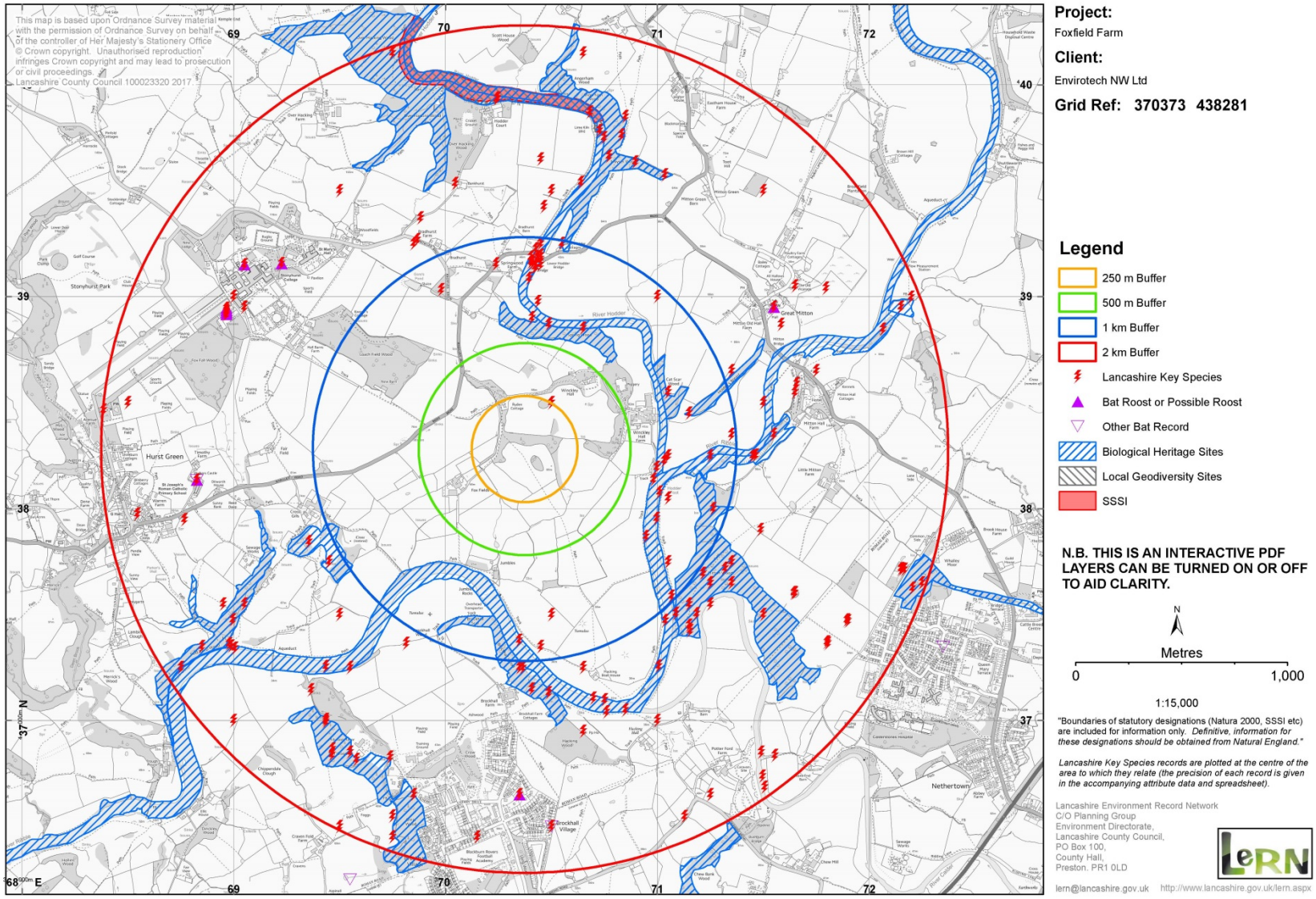

Figure 3 *Non-statutory sites 2km buffer*.

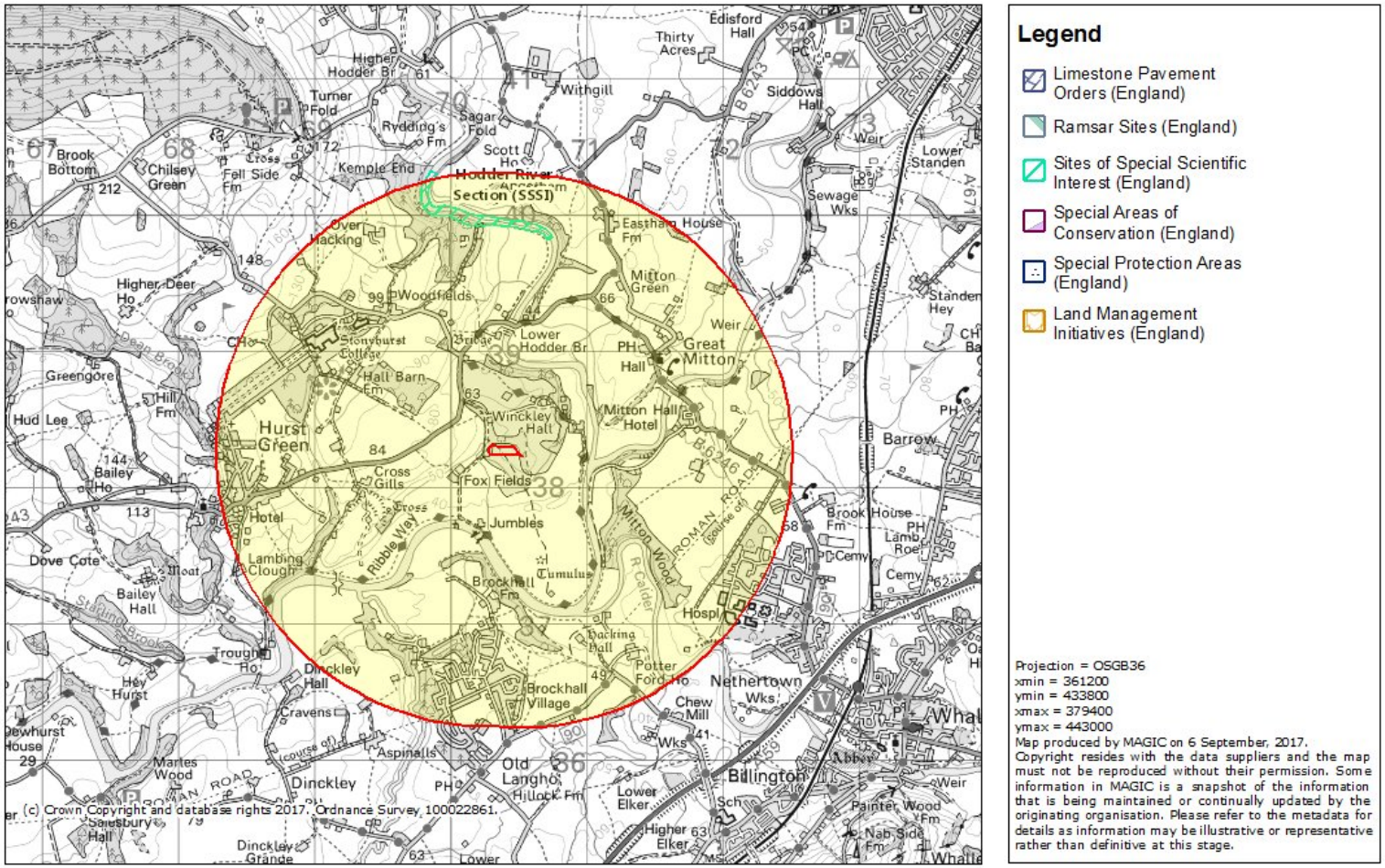

Figure 4 *Statutory designated sites 2km buffer.*

6. PHASE 1 SURVEY RESULTS

6.1 Habitat Results

6.1.1 The site comprises poor semi-improved grassland encompassed to the North, East and West by plantation coniferous woodland. Species poor grassland continues to the South. A road runs to the West followed by a small water course.

6.1.2 See Figure 5 for the Phase 1 Habitat Plan and Table 1 for the descriptive Botanical and Faunal Target Notes, hereafter referred to as BTN and FTN.

Target Note	Description	Comment
BTN1	Poor semi-improved grassland	The site is a compartment of species poor semi-improved grassland. This grassland is typical of heavily disturbed and improved land and is dominated by perennial rye grass (*Lolium perenne*) with Yorkshire fog (*Holcus lanatus*), broadleaved dock (*Rumex obtusifolia*), creeping buttercup (*Ranunculus repens*) and chickweed (*Stellaria media*). Grassland of similar species composition will be present in abundance locally. It is considered to be a habitat of low ecological value.
BTN2	Coniferous woodland plantation	Plantation *Pinus* sp. woodland encompasses the site to the North, East and West. The core of the woodland is specie spoor and lacks any notable ground flora, being heavily shaded by the coniferous canopy. Broadleaf trees are frequent along the woodland edge where the site bounds the woodland. Individuals present are semi-mature at best and no mature trees were recorded. Species present in these areas include: oak (*Quercus* sp.), beech (*Fagus sylvatica*), silver birch (*Betula pendula*), hawthorn (*Crataegus monogyna*), elder (*Sambucus nigra*), sycamore (*Acer pseudoplantanus*) and goat willow (*Salix caprea*).
BTN3	Hardstanding	Hardstanding and gravel tracks form access paths around the site. There is no notable vegetation associated with these areas of the site.
BTN4	Buildings	Six wooden pods and a metal contained occur on site. Pods are in excellent condition and well sealed. They have no notable vegetation associated with them.
FTN1	Rabbit	A single small runs is present at the North boundary of the site. Rabbits were seen to use this run during the survey. It was not considered large enough for use by species such as badger and no evidence of such use was present.
FTN2	Bats	Trees and structures on site were assessed for their potential to be used by bats. Buildings were well sealed and no mature trees or trees with cracks suitable for use by roosting bats were present.

Table 1 *Details of Botanical and Faunal Target Notes.*

*Habitats outside the site boundary are indicative only
and have been mapped from within the site boundary or from publicly accessible land

	The majority of the site is covered by specie spoor semi-improved grassland.
	Plantation coniferous woodland encompasses the North of the site. A series of wooden camping pods and a container are resent on site as well as hard core paths and access tracks around them.
	Woodland to the North, East and West of the site is semi-mature and dominated by coniferous species. Broadleaf species are present along the woodland edge.

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 poor semi-improved grassland has a very low species diversity and ecological value. Whilst the assemblage of species within it is higher than improved pasture, the species are all indicative of regular grazing and disturbance, this habitat does not constitute a BAP habitat.

6.2.3 Woodland around the site is not considered an good example of its habitat type. There is no ground flora present, trees are not mature and the structure of the woodland is poor. No species were present at the time of the survey to suggest that woodland on site is or was previously ancient.

6.2.4 No 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. Montbretia *(Crocosmia x crocosmiiflora*), tutsan and Himalayan balsam (*Impatiens glandulifer*) were recorded along the stream to the West but this is outside the site boundaries.

6.3 Amphibian

6.3.1 There are 24 records for amphibians within 2km of the site. Species recorded are common frog (*Rana temporaris*), common toad (*Bufo bufo*), smooth newt (*Lissotriton vulgaris*) and palmate newt (*L.helveticus*).

6.3.2 There are no records of great crested newts (*Triturus cristatus*) within this search range on the datasets searched.

6.3.3 There is no standing water on site or shown on OS mapping or aerial photography within 250m of site boundaries.

6.3.4 The core development area has a low value to amphibians being open and exposed. The boundary woodland edge could be utilised as refuges and/or hibernacula but there are no breeding ponds in proximity to the site.

6.3.5 Structural diversity at ground level across the site is very poor. There are no areas with log, rubble piles or compost heaps which would be particularly favourable to amphibians.

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

6.3.7 The proposed development will not result in the permanent loss of or a substantial negative effect on any waterbodies or foraging areas linked to them. Boundary areas which may provide foraging or refuge sites, are to be retained.

6.3.8 Common toad (*Bufo bufo*) are UK BAP species , the potential presence of this or other species, which are less habitat specific than great crested newt, should be considered. As such precautionary mitigation would be appropriate in respect of construction activities.

6.4 Badger

6.4.1 Seven records of badgers occur within 2km of the site on the datasets searched.

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 24 records of six bat species occurring within 2km of the site on the datasets searched. Species recorded are common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*P. pygmaeus*), brown long-eared (*Plecotus auritus*), Brandt's (Myotis brandtii), Daubenton's (*M. daubentonii*) and natterers (*M. nattereri*) bats.

6.5.2 The poor semi-improved grassland that the site is composed of offers poor bat foraging habitats being open, structurally and species poor. The proximity of the site to woodland and specifically woodland edge habitats increases its potential for use by foraging and commuting bats due to the shelter and invertebrates the woodland provides. The woodland lined road and watercourse to the West of the site are considered to be a higher potential bat habitat locally (Figure 6).

6.5.3 To confirm the site is not used by significant numbers of bats, a walked transect of the site for a period of 1.5hrs was undertaken by one surveyor on the 5th September 2017. The surveyor used an EM3 time expansion bat detector. There was light wind, 30% cloud cover and temperatures were 12 degrees Celsius. This transect recorded low numbers of pipistrelle sp bats commuting and foraging along the woodland edge.

6.5.4 The results of the activity survey (Figure 7) confirm our assessment of the potential for the habitat, trees and buildings at the site to support bats.

6.5.5 It is not considered there would be significant degradation of foraging habitat as a result of the proposal so long as the woodland is retained and lighting onto site boundaries is restricted.

6.5.6 Trees around the site perimeter were also assessed in accordance with Collins ed. (2016) and assigned a risk category. All of the trees on site were category 3 (negligible) risk. No indications of roosting or highly suitable roost sites were located within the trees. All of the trees could be adequately inspected. Risk categories from Hundt (2012) and the requirement for mitigation for each tree category are shown on Figure 8.

6.5.7 We consider bat species are highly unlikely to rely on the site for feeding or roosting but will occur in the local area.

Key

- Site Boundary
- High Value
- Medium Value
- Low Value

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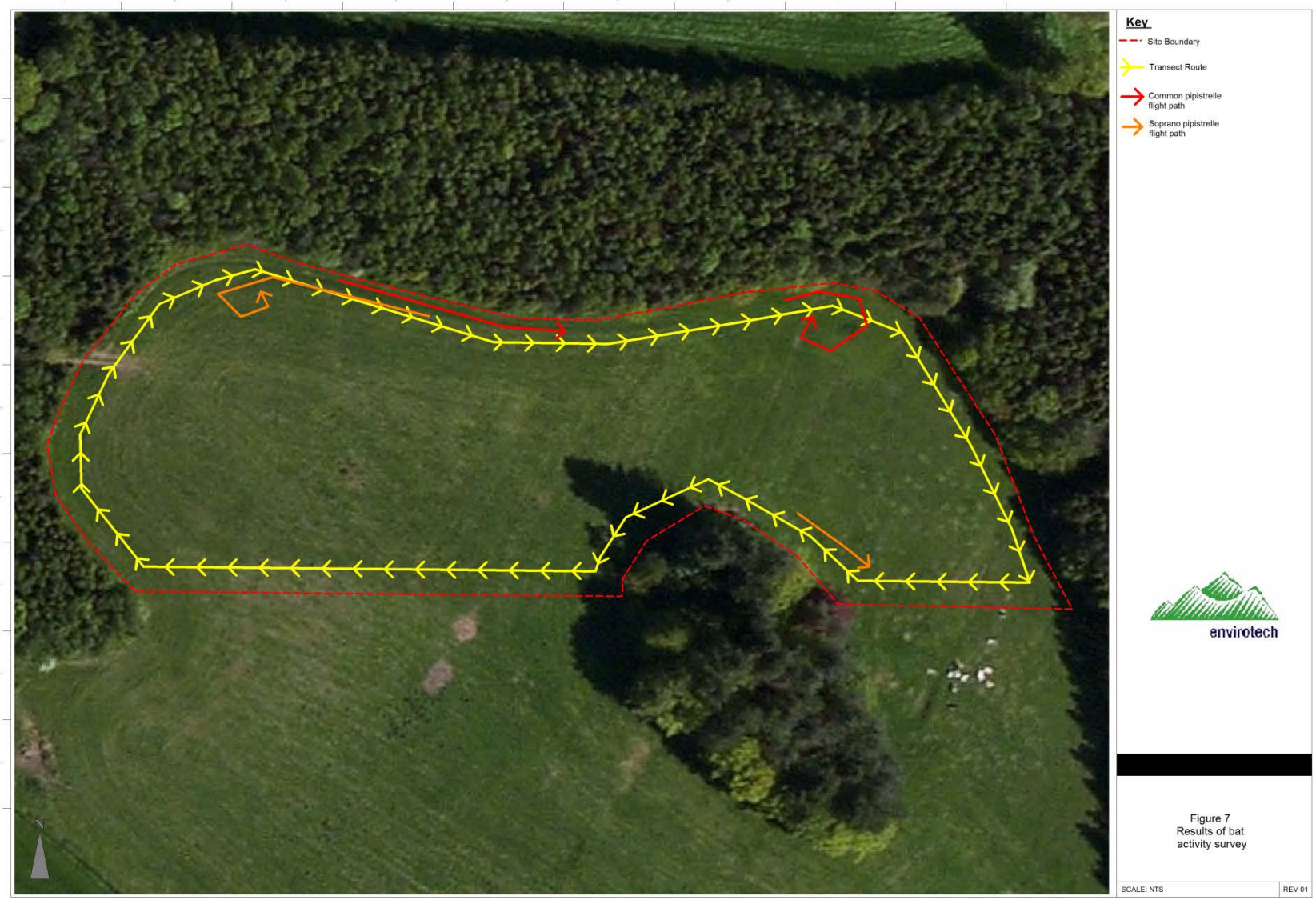
Figure 6
Results* of Extended
Bat Habitat Survey

SCALE: NTS | REV 01

*Habitats outside the site boundary are indicative only
and have been mapped from within the site boundary or from publicly accessible land


Key
Site Boundary
Transect Route
Common pipistrelle flight path
Soprano pipistrelle flight path
envirotech
Figure 7
Results of bat activity survey
SCALE: NTS
REV 01

Tree category and description	Stage 1 Initial survey requirements	Stage 2 Further measures to inform proposed mitigation	Stage 3 Likely mitigation
Known or confirmed roost	Follow SNCO guidance and these guidelines wherever possible, to establish the extent to which bats use the site. This is particularly important for roosts of high risk species and/or roosts of district or higher importance and above		The tree can be felled only under EPS licence following the installation of equivalent habitats as a replacement.
Category 1* Trees with multiple, highly suitable features capable of supporting larger roosts	Tree identified on a map and on the ground. Further assessment to provide a best expert judgement on the likely use of the roost, numbers and species of bat, by analysis of droppings or other field evidence. ***A consultant ecologist is required***	Avoid disturbance to trees, where possible. Further dusk and pre-dawn survey to establish more accurately the presence, species, numbers of bats present and the type of roost, and to inform the requirements for mitigation if felling is required.	Felling would be undertaken taking reasonable avoidance measures[3] such as 'soft felling' to minimise the risk of harm to individual bats.
Category 1 Trees with definite bat potential, supporting fewer suitable features that category 1* trees or with potential for use by single bats	Tree identified on a map and on the ground. Further assessed to provide a best expert judgement on the potential use of suitable cavities, based on the habitat preferences of bats. ***A consultant ecologist required***	Avoid disturbance to trees, where possible. More detailed, off the ground visual assessment. Further dusk and pre-dawn survey to establish the presence of bats, and if present, the species and numbers of bats and type of roost, to inform the requirements for mitigation if felling is required.	Trees with confirmed roosts following further survey are upgraded to Category 1* and felled under licence as above. Trees with no confirmed roosts may be downgraded to Category 2 dependent on survey findings
Category 2 Trees with no obvious potential, although the tree is of a size and age that elevated surveys may result in cracks or crevices being found; or the tree supports some features which may have limited potential to support bats.	None. ***A consultant ecologist is unlikely to be required***	Avoid disturbance to trees, where possible. No further surveys.	Trees may be felled taking reasonable avoidance measures. Stop works and seek advice in the event bats are found, in order to comply with relevant legislation.
Category 3 Trees with no potential to support bats	None. ***A consultant ecologist is not required unless new evidence is found***	None.	No mitigation for bats required.

Figure 8 *Tree risk categories from Hundt (2012).*

6.7 Birds

6.7.1 There are 146 records of birds within 2km of the site.

6.7.2 The poor semi-improved grassland has a low potential for use by nesting birds due top the lack of cover is provides. These areas are also subject to regular disturbance.

6.7.3 The site is considered to enclosed to be attractive to over wintering birds which prefer a clear flight path to and from grassland habitats.

6.7.4 Woodland adjacent to the site offers potential for birds to nest but this potential will be unaltered by the development.

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

6.8 Brown Hare

6.8.1 Brown hare are a UK BAP priority species. There are ten records of brown hares within 2km of the site.

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

6.8.3 The habitats on site is potentially suitable for use by this species although the regular human presence may deter them.

6.8.4 Precautionary mitigation would be suitable in ensuring that the risk to this species at the site is minimised.

6.9 Invertebrates

6.9.1 17 notable invertebrates have been recorded within 2km of the site.

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

6.9.3 The plant species assemblages found on site are not representative of those found in sites which are designated for their invertebrate interest.

6.9.4 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.

6.10 Reptiles

6.10.1 There is one record of common lizard (*Zootoca vivipara*) within 2km of the site. No other reptile species have been recorded within this search range on the datasets searched.

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

6.10.3 No indication of reptiles was recorded at the site.

6.10.4 As a consequence, 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.

6.11 Other

6.11.1 The site may be crossed by species such as fox (*Vulpes vulpes*) and rabbit (*Oryctolagus cuniculus*) are known to occur locally.

6.12 Statutory and Non-Statutory Sites

Direct Impacts:

6.12.1 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.

6.12.2 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:

6.12.3 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 trees on the site and its boundaries should be adequately protected during work in accordance with industry standards.

7.1.2 The landscaping scheme should be incorporated and utilise plants which are native and wildlife friendly. In particular night flowering species would be beneficial to bats.

7.2 Amphibians

7.2.1 There is no requirement for specific mitigation for these species. There are currently no suitable breeding sites on or near the site. However, as a precautionary measure, in the unlikely event that any signs of any amphibian 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.

7.2.2 In order to further minimise impacts on amphibians the following points should also be followed.

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

- During the development, measures should be put in place to discourage amphibians from using the development area, 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.

- The storage of all loose materials must be palletised or similar so they are off the ground whenever possible.

- 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 amphibians 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.

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.

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 New roosting provision for crevice dwelling bats could be incorporated into the buildings on site or bat boxes could be erected in retained trees.

7.4.3 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 woodland 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 and the retention of woodland on the site boundary will maintain the ecological functionality of the site for breeding birds.

7.5.4 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 Landscaping should include native or wildlife friendly species including night flowering plants.

7.7.2 Contaminants should not be allowed to enter substrates during work. To effect this, spill kits should be provided on site. Re-fuelling of all plant and machinery should be undertaken away from open drains and water courses. Drip trays should be used under static machinery.

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.

8. CONCLUSION

8.1.1 Ecological surveys, site appraisals and impact assessments were carried out with respect to land comprising open grassland with wooden camping pods and encompassed to the North, East and West by coniferous woodland.

8.1.2 Amphibians, bats, badgers, birds and brown hares are known to occur in the local area, there was however no conclusive evidence of any specifically protected species regularly occurring on the site or the surrounding areas which would have bene negatively affected by site development.

8.1.3 The vegetation within the site has a low ecological significance in the local area. The woodland close to but outside the development area is generally of low quality.

8.1.4 The protection of woodland on the site has maintained its potential for use by groups such as bats. Additional landscaping will promote structural diversity in both the canopy and at ground level and will encourage a wider variety of wildlife to use the site than already occurs.

8.1.5 Contractors will be observant for protected species and all nesting birds during any further works. 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.

9. REFERENCES

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