

Land off Whalley Road, Hurst Green BB7 9QJ

ECOLOGICAL SURVEY AND ASSESSMENT

August 2025

ERAP (Consultant Ecologists) Ltd Reference: 2025-170

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SUMMARY

Introduction and Scope

- i. This report presents the results of a preliminary ecological appraisal carried out at the land off Whalley Road, Hurst Green BB7 9QJ. The assessment was requested to inform a planning application proposing the construction of four holiday lodges with associated facilities.
- ii. This report presents the results of a desktop study and data search, an extended Phase 1 Habitat Survey and the results of the survey and assessment for relevant protected species. The surveys were carried out by a licensed, qualified and experienced ecologist and are in accordance with recognised survey guidelines.
- iii. The scope of survey undertaken is appropriate and proportionate to the conditions present and has facilitated the application of the mitigation hierarchy to inform the *Proposed Site Plan* (ZMA, 2025) and the *Softworks, Landscape Management and Maintenance Plan* (ZMA, 2025). The collated baseline surveys have informed the scope of recommendations and actions to be accommodated by the site proposals to avoid significant effects on features of ecological value, minimise impacts where avoidance is not possible, and to secure maximised opportunities for biodiversity as part of the proposals.

Results of Survey and Assessment

- iv. The approximately 0.9353 hectare site is located in Ribble Valley to the east of the village of Hurst Green and comprises a sheep-grazed field of improved grassland bordered by a native hedgerow at the northern boundary parallel to Whalley Road and timber post and wire fencing at the western, southern and eastern site boundaries.
- v. A line of planted, even-aged Norway Spruce trees extends along the eastern and part of the northern site margins. At the southern site boundary is an earth bank which supports a line of mature Oak and Ash trees with scattered shrubs of Hazel, Hawthorn and Elder. The more steeply sloping areas of the grassland are colonised by Bracken.
- vi. In consideration of the distances, and the absence of direct habitat and hydrological connectivity between the site and any statutory and non-statutory designated sites for nature conservation in the wider area, it is considered that the development proposals will have no direct or indirect effect on any designated sites for nature conservation or their features of special interest.
- vii. No semi-natural or irreplaceable habitats are present at the site. The roadside hedgerow at the northern site boundary is a Priority Habitat; the hedgerow will be retained by the proposals and compensatory planting for minor losses to create the new site access are accommodated by the proposals. Other than the presence of scattered plants of Indian Balsam within the modified grassland no other invasive plant species as listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were found.
- viii. Habitats at the site margins and in the wider area are likely to be used by foraging bats. Inappropriate use of artificial lighting at the site may have an adverse effect on use of the local area by foraging bats and other wildlife. Guidance to avoid a significant impact on foraging bats and to conserve habitats for use by foraging bats is provided at **Section 5.2**.
- ix. Mandatory measures to be applied to ensure the protection of nesting birds during and prior to the site preparation works are described at **Section 5.3** and recommendations for the provision of nesting opportunities for conservation targets and woodland birds are detailed in **Section 5.4**.

- x. The habitats at the site are suitable for use by badger and Priority Species such as hedgehog, common toad and other wildlife. Best practice guidance for the protection of wildlife to be applied prior to and during site clearance and construction operations is described in **Section 5.3**.
- xi. Appropriate and proportionate survey effort and / or assessment, in accordance with standard survey guidelines has been applied to discount adverse effects on other relevant protected species. No further surveys for other protected species are necessary to inform a planning application.

Recommendations and Conclusion

- xii. It is concluded that the holiday lodge proposals and landscape / habitat creation strategy that takes into account the ecological recommendations is feasible and acceptable in accordance with the identified ecological considerations and relevant planning policy.
- xiii. Adverse effects on designated sites for nature conservation are reasonably discounted. The mitigation hierarchy has been applied and, in the presence of mandatory actions and best practice measures described in **Section 5.0**, and appropriate mitigation / compensation to address identified impacts on ecologically valuable habitats (namely removal of a section hedgerow) and protected species such as nesting birds are feasible and can be secured.
- xiv. The report describes the appropriate and proportionate measures and recommendations that aim to enhance the value of the site for wildlife such as roosting bats, nesting birds and biodiversity. The recommendations comprise landscape planting, habitat creation and the application of positive habitat management in the long-term to achieve measurable gains for biodiversity and compliance with the NPPF, local planning policy and best practice.

1.0 INTRODUCTION

1.1 Background and Rationale

- 1.1.1 ERAP (Consultant Ecologists) Ltd was commissioned by ZMA to carry out an ecological assessment of land off Whalley Road, Hurst Green (hereafter referred to as the 'site'). The Ordnance Survey (OS) grid reference at the centre of the site is SD 69152 38080. An aerial image of the site and its surrounding habitats is appended at **Figure 1** (source image: ESRI World Imagery).
- 1.1.2 The assessment was requested to inform a planning application proposing the construction of four holiday lodges with associated facilities.

1.2 Scope of Works

- 1.2.1 The scope of ecological works undertaken in June and August 2025 comprised:
- A desktop study and data search for known ecological information at the site and the local area;
 - A Preliminary Ecological Appraisal (PEA) which has comprised an Extended Phase 1 Habitat Survey and assessment, and assessment of the habitats present at the site using the UK Habitats Classification;
 - Assessment of the ecological value of the habitats within the site with the use of the National Vegetation Classification (NVC) and the Ratcliffe criteria, as presented in *A Nature Conservation Review* (Ratcliffe, 1977);
 - Survey and assessment of all habitats for relevant statutorily protected species¹ and other wildlife including badger (*Meles meles*), great crested newt (*Triturus cristatus*), bird species and reptiles;
 - A daytime bat walkover survey for bats, which has comprised an assessment of the suitability of the habitats within the site and the surrounding area for foraging and commuting bats and a ground level tree assessment;
 - The identification of any potential ecological constraints on the proposals and the specification of the scope of mitigation and ecological enhancement required in accordance with wildlife legislation, planning policy guidance and other relevant guidance; and
 - The identification of any further surveys or precautionary actions that may be required to inform the progression of the site through the planning process or prior to the commencement of site preparation and construction activities.

¹ In accordance with *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact on the Planning System* (Office of the Deputy Prime Minister, 2005) developers should not be required to undertake surveys for protected species unless there is reasonable likelihood of the species being present and affected by the development. In this instance (for example) there are no water bodies or water courses within or adjacent to the site; there has been no requirement to consider water vole (*Arvicola amphibius*) or otter (*Lutra lutra*) or other riparian fauna as part of this assessment.

2.0 METHOD OF SURVEY

2.1 Desktop Study and Data Search

2.1.1 The following sources of information and ecological records were consulted:

- a. MAGiC Maps: A web-based interactive map which brings together geographic information on key environmental schemes and designations, including details of statutory nature conservation sites;
- b. Ancient Tree Inventory (Woodland Trust, 2025): An online database of ancient and veteran trees;
- c. Lancashire Local Nature Recovery Strategy (LNRS); and
- d. Lancashire Environment Record Network (LERN) was contacted and records within a 2 kilometres radius of the site were requested.

2.2 Vegetation and Habitats

2.2.1 A PEA of the site was carried out by Victoria Burrows B.Sc. (Hons) M.Sc. CEnv MCIEEM on 20th June 2025. The weather was dry with a light air (Beaufort scale 1) and an air temperature of 17°C.

2.2.2 An updated survey was carried out on 13th August 2025; the weather conditions were dry and sunny with a light air (Beaufort scale 1) and an air temperature of 27°C.

2.2.3 A Phase 1 Habitat Survey map was prepared for the site and the immediate surrounding area and is appended at **Figure 2**. The mapping is based on the Joint Nature Conservation Committee Phase 1 Habitat Survey methodology (JNCC, 2010) with minor adjustments to illustrate and examine the habitats with greater precision.

2.2.4 On site habitat mapping was assisted via use of GPS technology and QField on-site mapping software, using the *Existing Site Plan* (ZMA, 2025) and *ESRI World Imagery* as base plans. This plan was provided to ERAP (Consultant Ecologists) Ltd without spatial referencing; the plan has been inputted into QGIS and an affine transformation was completed to ensure it is accurate in accordance with *ESRI World Imagery*.

2.2.5 The plant species within the site boundary were determined with estimates of the distribution, ground cover, abundance and constancy of individual species. The estimation of abundance was based on the DAFOR system, where D = Dominant, A = Abundant, F = Frequent, O = Occasional and R = Rare, this being a widely used and accepted system employed by ecological surveyors. The terms L = Locally and V = Very were additionally used to describe the plant species distributions with greater precision.

2.2.6 Stands of vegetation and habitats were described and evaluated using the National Vegetation Classification (NVC). The NVC provides a systematic and comprehensive analysis of British vegetation and is a reliable framework for nature conservation and land-use planning.

2.2.7 Habitats within the site were assessed in accordance with *The UK Habitat Classification Version 2.0* (UKHab Ltd, 2023). The UK Habitat Classification, or 'UKHab' has been designed to function at two scales of minimum mappable unit (MMU): fine scale (25m² or 5 metres length) and large scale (400m² or 20 metres length). It has been considered for the purposes of this survey that the fine scale of 25m² or 5 metres length MMU is appropriate.

2.2.8 The roadside hedgerow was assessed in accordance with *The Hedgerows Regulations 1997* wildlife and landscape criteria (H.M.S.O., 1997).

- 2.2.9 Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the *Wildlife and Countryside Act 1981* (as amended) and species which are indicators of important and uncommon plant communities. Plant nomenclature follows *New Flora of the British Isles 3rd Edition* (Stace, 2010).
- 2.2.10 Searches were carried out for the presence of invasive species, including those listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), including Japanese Knotweed (*Fallopia japonica*), Indian Balsam (*Impatiens glandulifera*) and Giant Hogweed (*Heracleum mantegazzianum*).

2.3 Animal Life

Badger

- 2.3.1 The survey area for badger covered the site (as annotated on **Figure 2**) and extended to accessible land within a radius of 50 metres from the site boundary. Private gardens / land beyond the site boundary were not accessed but these areas were viewed from the fenceline.
- 2.3.2 The survey was conducted in accordance with guidance presented within *Badgers and Development* (Natural England, 2007) and *Badgers: advice for making planning decisions* (Natural England, 2022).
- 2.3.3 The following signs of badger activity were searched for:
- Sett entrances, e.g. entrances that are normally 25 to 35cm in diameter and shaped like a 'D' on its side;
 - Large spoil heaps outside sett entrances;
 - Bedding outside sett entrances;
 - Badger footprints;
 - Badger paths;
 - Latrines;
 - Badger hairs on fences or bushes;
 - Scratching posts; and
 - Signs of digging for food.
- 2.3.4 Habitats within and surrounding the site were assessed in terms of their suitability for use by foraging and sheltering badger in accordance with their known habitat preferences as detailed in current guidance and *Badger* (Roper, 2010).

Daytime Bat Walkover Survey

Survey Personnel

- 2.3.5 The site was assessed for its suitability to support foraging and roosting bats by Victoria Burrows, Natural England Class Survey Licence WML CL18 (Bat Survey Level 2), Registration Number 2015-10390-CLS-CLS. The surveyor's qualifications and experience meet the criteria as defined in the *Technical Guidance Series Competencies for Species Survey: Bats* (CIEEM, 2013).

Habitat Assessment for Commuting / Foraging Bats

- 2.3.6 Habitats within and adjacent to the site were assessed for their value and suitability for commuting and foraging bats in accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)* (Collins, J. (ed), 2023). Reference has been made to the categories, descriptions and examples presented in **Table 2.1**.

Table 2.1: Consideration of Suitability of Foraging and Commuting Habitat for Bats

Suitability	Potential Flight Paths and Foraging Habitats
None	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade / protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible ^a	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.
^a Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute).	

Ground Level Tree Assessment

- 2.3.7 A ground level tree assessment (GLTA) was carried out to assess trees for their suitability for use by roosting bats, and to inform whether further surveys or precautionary measures were required. Trees were assessed from the ground using binoculars and a high-powered torch.

Table 2.2: Survey Equipment used during Daytime Bat Survey

Ladders
LED Lenser P14 torch
Canon Ixus digital camera
8x20 binoculars
Ridgid Micro Inspection Camera Borescope CA-300

- 2.3.8 Each tree was searched for the presence of the following features:

Woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks or splits in stems and branches, partially decayed platey bark, knot holes, man-made holes, tear-outs, cankers in which cavities

have developed, other hollows or cavities, including butt-rots, double-leaders forming compression forks with included bark, gaps between overlapping stems or branches, partially detached Ivy (*Hedera helix*) with stem diameters in excess of 50mm and bat, bird or dormouse (*Muscardinus avellanarius*) boxes.

- 2.3.9 Terms used to describe any features present follow (where possible) those outlined and described in *Bat Tree Habitat Key, 2nd Edition* (Andrews, H (ed), 2013) and *Bat Roosts in Trees: A Guide to Identification and Assessment for Tree-care and Ecology Professionals* (BTHK, 2018).
- 2.3.10 Trees have been assessed and described using the categories presented at Tables 4.2 and 6.2 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)*, (Collins, J. (ed), 2023), as presented in **Table 2.3**.

Table 2.3: Definition of Terms and Suitability Categories Used in Tree Survey for Roosting Bats

Terms and Suitability Categories	Description
PRF	Potential Roost Feature
None	Either no PRFs in the tree(s) or highly unlikely to be any.
FAR	Further Assessment Required to establish if PRFs are present in the tree.
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.

- 2.3.11 The requirement for further presence / absence surveys at each tree was then considered.

Bird Species

- 2.3.12 Bird species observed and heard during the survey were recorded.
- 2.3.13 Habitats throughout the site and in the immediate surrounding area were assessed for their value to roosting, feeding and nesting birds, including Priority Species, as indicated by the habitats present at the site and in the surrounding area.

Great Crested Newt and Other Amphibian Species

Desktop Search for Ponds

- 2.3.14 In accordance with *Great crested newts: advice for making planning decisions* (Natural England, 2022) all ponds within an unobstructed 500 metres of a site should be considered for their suitability to support breeding great crested newts.
- 2.3.15 The search of habitats in the wider area up to a distance of 500 metres from the site boundary indicated the presence of three ponds, as detailed in **Table 2.4**.

Table 2.4: Ponds within 500 metres of the Site

Pond Reference	OS Grid Reference	Distance from Site Boundary	Location (refer to Figure 1)
1	SD 69078 38033	36 metres	On-line ornamental pond to the west
2	SD 69297 37830	204 metres	Large lodge to the south-east
3	SD 69343 37853	201 metres	Large lodge to the south-east

Consideration of Requirement for Further Survey

2.3.16 The requirement for further survey at each pond was then assessed using the following criteria:

- a. Consultation of the data / ecological records provided by LERN;
- b. Conditions at the individual ponds;
- c. Presence of dispersal barriers to great crested newt movements between ponds and the site, as detected during the walkover survey;
- d. Distance of ponds from the site, and the potential influence of the proposed development of the site on any populations of great crested newt (if present at ponds), using the Natural England rapid risk assessment tool; and
- e. Presence of other ponds which may form metapopulations and / or alter the influence of the site on ponds at greater distances.

Presence of Dispersal Barriers

2.3.17 There are no significant physical barriers to the migration of amphibians between Ponds 1 to 3 and the site.

Assessment of Terrestrial Habitat

2.3.18 An assessment of the terrestrial habitat within the site for great crested newts was conducted, as informed by the *Great Crested Newt Mitigation Guidelines* (English Nature, 2001) and the *Great Crested Newt Conservation Handbook* (Langton, et al., 2001).

2.3.19 Habitats present within the site were assessed for their value to support foraging, sheltering and hibernating great crested newt. Favourable habitats can comprise rough grassland, scrubland, woodland and sites with underground crevices or cracks, such as mammal holes, voids in tree stumps or banks, and refugia such as rock piles or dead wood.

Reptile Species

2.3.20 The site and its surroundings were assessed in terms of their suitability for use by reptile species using the important characteristics for reptiles outlined in the draft document *Reptile Mitigation Guidelines* (Natural England, 2011), and the *Reptile Habitat Management Handbook* (Edgar, et al., 2010). These habitat characteristics are outlined in **Table 2.5**.

Table 2.5: Important Habitat Characteristics for Reptiles

1. Location (in relation to species range)	7. Connectivity to nearby good quality habitat
2. Vegetation Structure	8. Prey abundance
3. Insolation	9. Refuge opportunity
4. Aspect	10. Hibernation habitat potential
5. Topography	11. Disturbance regime
6. Surface geology	12. Egg-laying site potential

Other Wildlife

- 2.3.21 Evidence of other wildlife, including Priority Species, observed whilst on site, but for which specific surveys were not made, was recorded and has been included in this report where it is considered of relevance to the planning application.
- 2.3.22 Habitats have been assessed for their suitability for Priority Species identified in the data search results where this is considered relevant to the application.

2.4 Survey and Reporting Limitations

- 2.4.1 No limitations on the intended scope of survey were experienced.
- 2.4.2 All measurements within this report are approximate only, and have been either estimated whilst on site or calculated using mapping software (QGIS) or internet-based mapping services such as MAGiC Maps and Google Earth.

2.5 Evaluation Methods

- 2.5.1 The habitats, vegetation and animal life were evaluated with reference to standard nature conservation criteria as described in *A Nature Conservation Review* (Ratcliffe, 1977). These are size (extent), diversity, naturalness, rarity, fragility, typicality, recorded history, position in an ecological or geographical unit, potential value and intrinsic appeal.
- 2.5.2 Habitats have been assessed to determine whether they meet those described in *UK Biodiversity Action Plan: Priority Habitat Descriptions* (Maddock, A (ed), 2008); these lists are used to help draw up the statutory lists of Priority Habitats, as required under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006*. Where suitable, the ecological value of the habitats present has been assessed using the terms outlined in *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018). Each habitat and individual trees have been assessed to determine whether they are 'irreplaceable habitat', defined in *National Planning Policy Framework* (Ministry of Housing, Communities & Local Government, 2024)² as '*Habitats which would be technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, taking into account their age, uniqueness, species diversity or rarity. They include ancient woodland, ancient and veteran trees, blanket bog, limestone pavement, sand dunes, salt marsh and lowland fen*'. The further detail presented in *The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024* (GOV.UK, 2024) has also been referred to.
- 2.5.3 Government advice on wildlife, as set out in the NPPF and associated government circulars has been taken into consideration. Legislation relating to protected species, such as those listed under Schedules 1, 5, 6 and 8 of the *Wildlife and Countryside Act 1981* (as amended) and *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*, is referenced where applicable, and any impacts to protected species are evaluated in accordance with current guidance.
- 2.5.4 The presence of any Priority Species, as listed under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006* is noted, and habitats are assessed in terms of their suitability and value for

²Hereafter the NPPF

these species. The presence of habitats and / or species listed by the Lancashire BAP has been taken into account in the evaluation of the site.

3.0 SURVEY RESULTS

3.1 Desktop Study and Data Search

Statutory Designated Sites for Nature Conservation and SSSI Impact Risk Zones

- 3.1.1 The site and adjoining land have no statutory designation for nature conservation.
- 3.1.2 The site lies within a Site of Special Scientific Interest (SSSI) Impact Risk Zone for the Hodder River Section SSSI, located approximately 2.0 kilometres to the north-east.
- 3.1.3 The SSSI Impact Risk Zone requires the Local Planning Authority to consult with Natural England on likely risks from the following development categories (Natural England, 2025):
- **Minerals, Oil and Gas:** Planning applications for quarries, including: new proposals, Review of Minerals Permissions, extensions, variations to conditions etc. Oil and gas exploration / extraction.
- 3.1.4 Natural England advises:

'You do not need to consult Natural England on the proposed development at this location.

The Impact Risk Zones for Sites of Special Scientific Interest (SSSI IRZs) indicate that at the location selected, the proposed development is unlikely to have a harmful effect on terrestrial Sites of Special Scientific Interest (SSSIs) and the Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites that they underpin.

Therefore, you do not need to consult Natural England on the likely impacts of development on terrestrial SSSIs and the SACs, SPAs or Ramsar sites that they underpin.'

Non-statutory Designated Sites for Nature Conservation

- 3.1.5 The site and adjoining land have no non-statutory designated site for nature conservation, called 'Biological Heritage Sites' or 'BHS' in Lancashire.
- 3.1.6 Seventeen BHS are located within a 2 kilometres radius from the centre of the site, and are summarised in **Table 3.1**.

Table 3.1: BHS Within a 2 Kilometres Radius from the Centre of the Site

BHS Name	Distance and Direction from the Site	Reasons for Designation
Bailey Hall Wood and Merrick's Wood	0.84 kilometres south-west	The BHS comprises semi-natural woodland which is identified within Natural England's Inventory of Ancient Woodland.
Brockhall Wood	0.94 kilometres south-east	The BHS comprises semi-natural woodland on the steep slopes above the south bank of the River Ribble and a section of its flood plain near Brockholes Village.

BHS Name	Distance and Direction from the Site	Reasons for Designation
Cat Scar Wood	1.85 kilometres east	The BHS comprises semi-natural woodland which is identified within Natural England's Inventory of Ancient Woodland.
Clough Bank Wood	1.65 kilometres south-west	The BHS comprises semi-natural woodland which is identified within Natural England's Inventory of Ancient Woodland.
Cross Gills Former Sand Quarry	0.16 kilometres south-east	The BHS comprises a former sand quarry situated 0.9 kilometres east of Hurst Green. The site has colonised naturally since mineral operations ceased and now supports a mosaic of semi-natural habitats. Sandy cliffs on the eastern side of the site regularly support around 40 pairs of breeding sand martins.
Great Wood and Mill Wood	0.97 kilometres south	The BHS comprises of mixed woodland adjoining Dinckley Brook to the west of Brockhall Village and is noteworthy for the presence of Yellow Archangel which is listed as Sensitive in the <i>Provisional Lancashire Red Data List of Vascular Plants</i> .
Hollins Wood and Dinckley Fields	1.54 kilometres south-west	The BHS comprises a large mosaic of semi-natural habitats bordering the south bank of the River Ribble by Dinckley suspension bridge, approximately 3.5 kilometres east of Ribchester. It includes marshy grassland with species-rich flushes, neutral grassland, acid grassland, woodland and scrub.
Lambing Clough Meadow	1.21 kilometres south-west	The BHS comprises a field of semi-natural, neutral grassland situated 0.8 kilometres south of Hurst Green. The grassland is notable for its species richness.
Mitton Hall Wood	1.9 kilometres east	The BHS comprises woodland which is ancient semi-natural in character.
Mitton Wood	1.99 kilometres east	The BHS comprises a large, semi-natural woodland situated approximately 1.5 kilometres south of Great Mitton at the confluence of the river Calder with the river Ribble. It is listed in the <i>Lancashire Inventory of Ancient Woodland (Provisional)</i> , (English Nature, 1994). Yellow star-of-Bethlehem (<i>Gagea lutea</i>), a plant categorised as 'endangered' in the <i>Provisional Lancashire Red Data List of Vascular Plants</i> , occurs in the wood. An uncommon mollusc, the ash-grey slug (<i>Limax cinereonige</i>), has also been recorded here.
Moyser Wood and Angerham Wood	1.77 kilometres north-east	N/A
Over Hacking Wood	1.55 kilometres north	The BHS comprises a large block of semi-natural woodland situated on sloping ground along the west bank of the river Hodder approximately 4 kilometres south west of Clitheroe. The wood is

BHS Name	Distance and Direction from the Site	Reasons for Designation
		listed in the <i>Lancashire Inventory of Ancient Woodland (Provisional)</i> , (English Nature, 1994). The occurrence of Rough Horsetail, (<i>Equisetum hyemale</i>), a species listed as vulnerable in the <i>Provisional Lancashire Red Data List of Vascular Plants</i> is notable.
Park Wood	1.12 kilometres north-west	The liverwort Shining Flapwort (<i>Jungermannia paradoxa</i>), a <i>Lancashire Key Species</i> , is recorded from the BHS.
Raid Deep Wood	0.04 kilometres south-west	The BHS comprises semi-natural woodland situated alongside the north bank of the River Ribble approximately 0.5 kilometres south east of Hurst Green. It is listed in the <i>Lancashire Inventory of Ancient Woodland (Provisional)</i> , (English Nature, 1994). Yellow Star-of-Bethlehem, a species listed as endangered in the <i>Provisional Lancashire Red Data List of Vascular Plants</i> , occurs in the wood. Breeding birds recorded include goosander, tawny owl, great spotted woodpecker, blackcap, chiffchaff, long-tailed tit, nuthatch, treecreeper, jay and bullfinch.
River Hodder From Confluence with River Ribble Upstream to Cross of Greet Bridge/ Bowland Fells SSSI Boundary	1.46 kilometres north	The BHS comprises almost the entire length of the River Hodder, from the Cross of Greet Bridge in the north downstream to its confluence with the River Ribble in the south. The river is important for otter, a species that is listed in Annex II of the Habitats Directive and in Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Otter is a UK Biodiversity Action Plan (BAP) priority species. The Hodder is a Class 1 river (good/excellent water quality) and supports salmon, brown trout, sea trout, bullhead, dace and stone loach. Sandpipers and oystercatchers are associated with areas of shingle. Three species included in the <i>Provisional Lancashire Red Data List of Vascular Plants</i> are present along the riverside, namely yellow Star-of-Bethlehem, Green Figwort and Melancholy Thistle.
River Ribble from London Road Bridge Preston, in West, to County Boundary, in East	0.64 kilometres west	The BHS comprises the River Ribble and associated semi-natural habitats from the county boundary at Paythorne downstream to London Road Bridge, Walton-le-Dale, Preston. The river is important for salmon, sea trout, otter and water vole. Plant species of interest along the river include the northern spike-rush (a nationally rare species at its southern limit of distribution in the UK), Slender Tufted-sedge and Green Figwort. The moss <i>Cinclidotus</i>

BHS Name	Distance and Direction from the Site	Reasons for Designation
		<i>Mucronatus</i> (rare in Lancashire) occurs on limestone river boulders in the Clitheroe area.
Spring Wood	1.32 kilometres north-east	N/A

Local Nature Recovery Strategy

- 3.1.7 The site does not lie within a Local Nature Recovery Strategy area such as an 'Area of Particular Importance'.

Priority Habitats Inventory

- 3.1.8 The Priority Habitats Inventory³ was checked via MAGiC Maps. No Priority Habitats are identified at the site by the inventory.

Ancient Tree Inventory

- 3.1.9 No ancient or veteran trees are identified at the site by the inventory.

Protected and Notable Species

- 3.1.10 Records of protected and notable species for a 2 kilometres radius from the centre of the site are summarised in **Table 3.2**.

Table 3.2: Records of Protected Species Within a 2 Kilometres Radius from the Centre of the Site

Taxon Group	Species Name and Designations ¹ and Notes
Amphibians	Common frog (<i>Rana temporaria</i>): LBAP. 10 records, dated between 1994 and 2022. The closest record is 215 metres to the south-east, and from 1994. Common frog (<i>Rana temporaria</i>): LBAP. 10 records, dated between 1994 and 2022. The closest record is 215 metres to the south-east, and from 1994.
Bird – Priority Species and LBAP	PS & LBAP: Reed bunting (<i>Emberiza schoeniclus</i>), herring gull (<i>Larus argentatus</i>), yellow wagtail (<i>Motacilla flava</i>), spotted flycatcher (<i>Muscicapa striata</i>), curlew (<i>Numenius arquata</i>), house sparrow (<i>Passer domesticus</i>), tree sparrow (<i>Passer montanus</i>), grey partridge (<i>Perdix perdix</i>), dunnoek (<i>Prunella modularis</i>), bullfinch (<i>Pyrrhula pyrrhula</i>), starling (<i>Sturnus vulgaris</i>), song thrush (<i>Turdus philomelos</i>) and lapwing (<i>Vanellus vanellus</i>). PS Only: Linnet (<i>Linaria cannabina</i>). LBAP Only: Common sandpiper (<i>Actitis hypoleucos</i>), pink-footed goose (<i>Anser brachyrhynchus</i>), meadow pipit (<i>Anthus pratensis</i>), swift (<i>Apus apus</i>), grey heron (<i>Ardea cinerea</i>), black-headed gull (<i>Chroicocephalus ridibundus</i>), little egret (<i>Egretta garzetta</i>), kestrel (<i>Falco tinnunculus</i>), snipe (<i>Gallinago gallinago</i>), oystercatcher (<i>Haematopus ostralegus</i>), great black-backed gull (<i>Larus marinus</i>), red-breasted merganser (<i>Mergus serrator</i>), willow warbler (<i>Phylloscopus trochilus</i>) and redshank (<i>Tringa totanus</i>).
Birds - WCAs1	Barn owl (<i>Tyto alba</i>): WCAs1. 7 records, dated between 2018 and 2019. The closest record is 955 metres to the west, and from 2018.

³ A spatial dataset that describes the geographic extent and location of Natural Environment and Rural Communities Act (2006) Section 41 habitats of principal importance.

Taxon Group	Species Name and Designations ¹ and Notes
	Domestic goose (<i>Anser anser f. domesticus</i>): WCAs1. 7 records, all from 2020. The closest record is 815 metres to the north-west. Greylag goose (<i>Anser anser</i>): WCAs1. 1 record from 2021, located 905 metres to the north-west. Kingfisher (<i>Alcedo atthis</i>): WCAs1. 5 records, dated between 1994 and 2021. The closest record is 780 metres to the north, and from 2021. Redwing (<i>Turdus iliacus</i>): WCAs1. 3 records, dated between 2011 and 2022. The closest record is 130 metres to the west, and from 2011.
Bony Fish	PS & LBAP: European eel (<i>Anguilla anguilla</i>), atlantic salmon (<i>Salmo salar</i>) and brown/sea trout (<i>Salmo trutta</i>). LBAP Only: Bullhead (<i>Cottus gobio</i>) and brown trout (<i>Salmo trutta subsp. fario</i>).
Fern	Killarney fern (<i>Trichomanes speciosum</i>): LBAP. 3 records, dated between 1964 and 1999. The closest record is 965 metres to the south-west, and from 1999.
Flowering Plants	PS & LBAP: Field Gentian (<i>Gentianella campestris</i>). LBAP Only: Slender Tufted-sedge (<i>Carex acuta</i>), Lesser Tussock-sedge (<i>Carex diandra</i>), Lily-of-the-valley (<i>Convallaria majalis</i>), Wood Fescue (<i>Festuca altissima</i>), Yellow Star-of-Bethlehem (<i>Gagea lutea</i>), Heath Fragrant-orchid (<i>Gymnadenia borealis</i>), Common Fragrant-orchid (<i>Gymnadenia conopsea</i>), Stinking Hellebore (<i>Helleborus foetidus</i>), Henbane (<i>Hyoscyamus niger</i>), Pale St John's-wort (<i>Hypericum montanum</i>), Herb-Paris (<i>Paris quadrifolia</i>), Greater Butterfly-orchid (<i>Platanthera chlorantha</i>), Red Pondweed (<i>Potamogeton alpinus</i>), Northern Yellow-cress (<i>Rorippa islandica</i>), Stone Bramble (<i>Rubus saxatilis</i>) and Tea-leaved Willow (<i>Salix phylicifolia</i>).
Horsetail	Equisetum palustre x telmateia = e. x font-queri (<i>Equisetum palustre x telmateia = E. x font-queri</i>): LBAP. 1 record from 2004, located 875 metres to the south-east.
Insect – Butterfly	PS & LBAP: Small heath (<i>Coenonympha pamphilus</i>), wall (<i>Lasiommata megera</i>) and white-letter hairstreak (<i>Satyrion w-album</i>). LBAP Only: Ringlet (<i>Aphantopus hyperantus</i>).
Insect – Moth	PS Only: Knot grass (<i>Acronicta rumicis</i>), green-brindled crescent (<i>Allophyes oxyacanthae</i>), dusky brocade (<i>Apamea remissa</i>), centre-barred sallow (<i>Atethmia centrargo</i>), small square-spot (<i>Diarsia rubi</i>), small phoenix (<i>Ecliptopera silaceata</i>), september thorn (<i>Ennomos erosaria</i>), dusky thorn (<i>Ennomos fuscantaria</i>), dot moth (<i>Melanchra persicariae</i>), powdered quaker (<i>Orthosia gracilis</i>), white ermine (<i>Spilosoma lubricipeda</i>), feathered gothic (<i>Tholera decimalis</i>), blood-vein (<i>Timandra comae</i>) and oak hook-tip (<i>Watsonalla binaria</i>). LBAP Only: Clay triple-lines (<i>Cyclophora linearia</i>) and chimney sweep (<i>Odezia atrata</i>).
Jawless (Agnatha)	Fish Sea lamprey (<i>Petromyzon marinus</i>): PS. 1 record from 2009, located 1710 metres to the north-east.
Terrestrial Mammals	Brandt's bat (<i>Myotis brandtii</i>): LBAP. 2 records, dated 2014 and 2018. The closest record is 1040 metres to the north, and from 2014. Brown hare (<i>Lepus europaeus</i>): PS & LBAP. 6 records, dated between 2009 and 2021. The closest record is 695 metres to the north-west, and from 2013. Brown long-eared bat (<i>Plecotus auritus</i>): PS & LBAP. 12 records, dated between 2013 and 2019. The closest record is 245 metres to the west, and from 2017.

Taxon Group	Species Name and Designations ¹ and Notes
	Daubenton's bat (<i>Myotis daubentonii</i>): LBAP. 1 record from 1966, located 1710 metres to the north-east.
	Hedgehog (<i>Erinaceus europaeus</i>): PS & LBAP. 14 records, dated between 1972 and 2023. The closest record is 505 metres to the west, and from 2021.
	Myotis bat species (<i>Myotis</i>): LBAP. 2 records, both from 2019. The closest record is 1405 metres to the south-east.
	Natterer's bat (<i>Myotis nattereri</i>): LBAP. 4 records, dated between 2015 and 2018. The closest record is 840 metres to the north, and from 2015.
	Noctule (<i>Nyctalus noctula</i>): PS & LBAP. 4 records, dated between 2018 and 2019. The closest record is 710 metres to the west, and from 2018.
	Otter (<i>Lutra lutra</i>): PS & LBAP. 5 records, dated between 1970 and 2022. The closest record is 795 metres to the south, and from 2004.
	Pipistrelle (<i>Pipistrellus</i>): LBAP. 30 records, dated between 1993 and 2019. The closest record is 540 metres to the west, and from 1995.
	Soprano pipistrelle (<i>Pipistrellus pygmaeus</i>): PS & LBAP. 17 records, dated between 2009 and 2019. The closest record is 720 metres to the west, and from 2018.
	Water vole (<i>Arvicola amphibius</i>): PS & LBAP. 2 records, both from 2006. The closest record is 1335 metres to the north-west.
¹ Key to Designation Codes: EPS = European Protected Species under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. WCAs1 = Species receives full protection under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). WCAs5 = Species receives full protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). PS = Priority Species listed under Section 41 of the NERC Act 2006. LBAP = Species listed on the Lancashire Biodiversity Action Plan.	

- 3.1.11 The presence of these protected and notable species within the wider area has been taken into account throughout this report.

3.2 Vegetation and Habitats

General Description

- 3.2.1 The approximately 0.9353 hectare site is located in Ribble Valley to the east of the village of Hurst Green and comprises a sheep-grazed field of improved grassland bordered by a native hedgerow (Hedgerow 1) at the northern boundary parallel to Whalley Road and timber post and wire fencing at the western, southern and eastern site boundaries.
- 3.2.2 A line of planted, even-aged Norway Spruce (*Picea abies*) trees extends along the eastern and part of the northern site margins. At the southern site boundary is an earth bank which supports a line of mature Oak (*Quercus robur*) and Ash (*Fraxinus excelsior*) trees with scattered shrubs of Hazel (*Corylus avellana*), Hawthorn (*Crataegus monogyna*) and Elder (*Sambucus nigra*). The more steeply sloping areas of the grassland are colonised by Bracken (*Pteridium aquilinum*).
- 3.2.3 A Phase 1 Habitat Survey map is appended at **Figure 2**. Photographs are appended in **Section 8.1** and plant species lists are presented in **Section 8.2**.

Improved / Modified Grassland

- 3.2.4 Refer to **Photo 1**. The majority of the site is colonised by sheep-grazed improved / modified grassland characterised by constant and abundant Perennial Rye-grass (*Lolium perenne*), Rough Meadow-grass (*Poa trivialis*), Yorkshire-fog (*Holcus lanatus*) and Meadow Foxtail (*Alopecurus pratensis*) with abundant

Smooth Meadow-grass (*Poa pratensis*), locally abundant Cock's-foot (*Dactylis glomerata*) and very locally frequent Tufted Hair-grass (*Deschampsia caespitosa*). Whilst the sward is dominated by grass species forbs comprising occasional Broad-leaved Dock (*Rumex obtusifolius*), Dandelion (*Taraxacum officinale* agg.) and Creeping Thistle (*Cirsium arvense*) were recorded with very locally frequent Indian Balsam and Common Mouse-ear (*Cerastium fontanum*). Patches of Soft-rush (*Juncus effusus*) are present, particularly on the more level ground in the northern area and Bracken is present at the western margin. A plant species list is appended at **Table 8.2**.

- 3.2.5 The improved grassland is characteristic of an MG7 *Lolium perenne* ley community of the NVC (Rodwell, 1992) and is described by the UKHab as g4 modified grassland with the secondary code 102 sheep grazed.

Bracken

- 3.2.6 Refer to **Photo 2**. At the south-western margin of the site where the ground slopes more steeply are areas of Bracken with associated plant of Tufted Hair-grass, Common Bent (*Agrostis capillaris*), Sheep's Fescue (*Festuca ovina*), Enchanter's Nightshade (*Circaea lutetiana*) and Foxglove (*Digitalis purpurea*).
- 3.2.7 The stand of Bracken has affinities with the W25 *Pteridium aquilinum* – *Rubus fruticosus* underscrub community of the NVC and is described by the UKHab as g1c Bracken with the secondary code 102 sheep grazed.

Hardstanding and Container

- 3.2.8 Refer to **Photo 3**. As shown on **Figure 2** the current gateway / field entrance off Whalley Road and a concrete slab towards the southern end of the site are hardstanding / bare ground described by the UKHab as u1b6 other developed land.
- 3.2.9 Refer to **Photo 4**. At the northern area of the site is a metal container which is described by the UKHab as u1b5 building.

Individual Trees

Tree T1

- 3.2.10 Refer to **Photo 5**. At the north-western corner of the site is a small⁴ Cherry (*Prunus* sp.) tree.

Trees T2 and T3

- 3.2.11 Refer to **Photo 6**. Adjacent to T1 are two medium-sized⁵ Silver Birch (*Betula pendula*) trees.

Trees T4 to T11

- 3.2.12 Refer to **Photo 7**. A line of 8 small planted Norway Spruce are also present near the container; as these trees do not attain a length of 20 metres and would therefore be a line of trees under the assessment of biodiversity net gain, they have been assessed as individual trees.

⁴ A tree with a diameter at breast height of less than 300mm.

⁵ A tree with a DBH of between 300mm and 600mm.

Hedgerow 1

- 3.2.13 Refer to **Photo 8**. The hedgerow along the northern site margin is approximately 3 metres high and 0.8 metres wide and characterised by constant and abundant Hawthorn (*Crataegus monogyna*) with frequent Sycamore (*Acer pseudoplatanus*), Dog-rose (*Rosa canina*), locally abundant Elder (*Sambucus nigra*) and locally frequent Hazel (*Corylus avellana*). There are no trees within the hedgerow.
- 3.2.14 The understorey is characterised by abundant Bramble with frequent Cock's-foot, Smooth Meadow-grass, Yorkshire-fog, Common Nettle and locally abundant False Oat-grass (*Arrhenatherum elatius*), Garlic Mustard (*Alliaria petiolata*), Dog's Mercury (*Mercurialis perenne*), Barren Brome (*Bromus sterilis*) and Meadowsweet (*Filipendula ulmaria*). Other woodland herbs, in addition to Dog's Mercury, are occasional Wood Avens (*Geum urbanum*) and Arum Lily (*Arum maculatum*). A plant species list is appended at **Table 8.3** and the hedgerow is assessed in accordance with *The Hedgerows Regulations 1997* criteria at **Section 8.3**.
- 3.2.15 The hedgerow is indicative of the W21 *Crataegus monogyna* – *Hedera helix* community of the NVC (Rodwell, 1991) and is described by the UKHab as h2ab other native hedgerow.

Line of Trees 1: Native

- 3.2.16 Refer to **Photo 9**. An earth bank long the southern margin of the site supports a line of mature and semi-mature Oak and Ash trees with locally abundant Beech (*Fagus sylvatica*). Shrubs beneath the tree canopy comprise frequent Hazel, locally abundant Holly (*Ilex aquifolium*), abundant Hawthorn and occasional Elder.
- 3.2.17 The understorey is grazed by the sheep and there are large areas of bare ground. Herb species are characterised by constant and abundant False Oat-grass, constant and frequent Yorkshire-fog and Perennial Rye-grass with occasional woodland herbs of Broad Buckler-fern (*Dryopteris dilatata*) and very locally abundant Herb-Robert (*Geranium robertianum*). Opposite-leaved Golden Saxifrage (*Chrysosplenium oppositifolium*) and Wood Speedwell (*Veronica montana*) were also recorded. A plant species list is appended at **Table 8.4**.

Line of Trees 2: Norway Spruce

- 3.2.18 Refer to **Photo 10**. At the eastern side of the northern margin of the site and along the eastern site boundary is a planted double staggered row of even-aged Norway Spruce trees. The ground beneath the trees is typically bare due the shading, although occasional plants of Common Nettle, Cow Parsley (*Anthriscus sylvestris*), Dandelion and Creeping Thistle were noted. The row of Norway Spruce trees has no affinities with an NVC community and is described by the UKHab as w2 coniferous woodland with the secondary code 33 line of trees.

Invasive Plant Species

- 3.2.19 No Japanese Knotweed is present at the site.
- 3.2.20 As illustrated on **Figure 2**, stands of Indian Balsam were detected throughout the field of modified grassland. This species is listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended); it is an offence to spread or cause its spread in the wild. This is considered further at **Section 4.3** below.

3.3 Animal Life

Badger

- 3.3.1 The habitats at the site are suitable for use by badger. However, no signs of badger such as setts, snuffle holes, tracks, hairs or burrows were detected at the site and survey area. The presence of badger setts is reasonably discounted at this stage, although precautionary best practice measures are recommended at **Section 5.3**.

Bat Species

Habitat Assessment for Commuting / Foraging Bats

- 3.3.2 The lines of trees and hedgerows around the margins of the site have good habitat connectivity with other established woodland habitats and watercourses in the wider area, particularly at the grounds of the property to the west and extending southwards from the site.
- 3.3.3 The habitats present are assessed to be suitable for and contribute to the wider foraging area for use by common species of edge-feeding foraging bats, such as common pipistrelle (*Pipistrellus pipistrellus*), and also bat species known to forage over open habitats and over wide areas, such as noctule (*Nyctalus noctula*). The habitats at the site, in combination, with the connectivity to the surrounding habitats are assessed to be of 'moderate' suitability for use by foraging bats.

Trees

- 3.3.4 No confirmed roosts or trees considered to be PRF-M⁶ were recorded. The mature Oak and Ash trees at Line of trees 1 at the southern margin of the site support dead wood and may support PRF-I in the canopy. As these trees will be retained by the proposals there was no requirement for further inspection at this stage.

Bird Species

- 3.3.5 Birds detected in the site on the survey dates in June and August 2025 are listed in **Table 3.3**.

⁶ PRF-M = PRF is suitable for multiple bats and may therefore be used by a maternity colony

Table 3.3: Bird Species Detected on 20th June and 13th August 2025

Scientific Name	Common Name	BOCC Status ¹	Notes
<i>Buteo buteo</i>	Buzzard	Green	Pair (or adult and young) resting in mature trees at Line of trees 1.
<i>Coloeus monedula</i>	Jackdaw	Green	In flight over site.
<i>Columba palumbus</i>	Wood pigeon	Amber	In trees at southern site margin.
<i>Parus caeruleus</i>	Blue tit	Green	In Line of trees 1 at southern site margin.
<i>Troglodytes troglodytes</i>	Wren	Amber	In Line of trees 1 at southern site margin.
<i>Turdus merula</i>	Blackbird	Green	In Line of trees 1 at southern site margin.

¹BOCC: Birds of Conservation Concern (Stanbury, et al., 2021).

3.3.6 No ground nesting birds were recorded at the site. It is considered that the sloping terrain and the relatively enclosed conditions at the field due to the presence of the boundary hedgerow and lines of trees and the proximity of the road create sub-optimal conditions for the attraction of ground nesting birds such as lapwing and skylark.

3.3.7 The trees and hedgerow habitats are suitable for use by nesting passerine (i.e. perching) species, including those detected within the site during the survey and Priority Species such as dunnock and song thrush. This is considered further at **Section 4.4**, below.

Great Crested Newt and other Amphibians

Pond 1

3.3.8 Refer to **Figure 1**. Pond 1 is located within 50 metres of the western site boundary. The need for further surveys for great crested newt at Pond 1 was reasonably discounted due to the on-line status of the pond within a watercourse / tributary of the River Ribble and the likelihood of fish⁷ in the pond.

Ponds 2 and 3

3.3.9 Ponds 2 and 3 are located over 200 metres to the south of the site and are associated with the Cross Gills Former Sand Quarry BHS; these large bodies of water are likely to contain fish and are assessed to be unsuitable for use by breeding great crested newt.

Assessment of Terrestrial Habitats

3.3.10 Depending on the grazing intensity the grassland habitats within the site boundary may provide opportunities for other species of amphibian for shelter and one juvenile common toad was recorded on 13th August 2025. This is taken into consideration in **Section 4.4** and appropriate and proportionate guidance is provided in **Section 5.3**.

Reptiles

3.3.11 The regularly disturbed agricultural land within the site provides poor quality habitat for sheltering, basking and hibernating reptiles. There are no piles of garden waste or other suitable debris for use by sheltering or hibernating reptiles.

⁷ Due to the behaviour of great crested newt larvae which, after hatching, spend more time in the central water they are more affected by fish predation.

- 3.3.12 The site is not adjacent or linked to any areas of favourable habitat for reptile species. In consideration of all information available the presence of reptiles within the site is reasonably discounted.

Other Wildlife

- 3.3.13 An incidental observation of small white (*Pieris rapae*) and speckled wood (*Pararge aegeria*) butterflies were made; both are common and widespread species in the UK.
- 3.3.14 The habitats are suitable for use by hedgehog (*Erinaceus europaeus*), a Priority Species and this is discussed in **Section 4.4**.

4.0 EVALUATION AND ASSESSMENT

4.1 Introduction and Description of Proposals

- 4.1.1 The proposals are presented at the *Proposed Site Plan* (ZMA, 2025), hereafter the 'proposals plan' and comprise the construction of four holiday lodges with access tracks and car parking with associated facilities including paths and a picnic area.
- 4.1.2 The proposals plan has been prepared in accordance with ecological guidance. In accordance with the mitigation hierarchy all efforts have been made to retain habitats identified to be of ecological value / habitats of greater than low distinctiveness. In addition, the biodiversity value of the retained habitats has been maximised by identification of areas where alternative management may be appropriate to enhance the condition assessment and / or create a habitat of greater distinctiveness. This is discussed in more detail in **Section 5.2**.
- 4.1.3 **Section 4.2** provides an assessment of any impacts of the proposed development on the designated sites for nature conservation present in the wider area. The ecological value of habitats within the site is evaluated at **Section 4.3**, and protected and notable species are considered at **Section 4.4**.

4.2 Designated Sites for Nature Conservation

- 4.2.1 The site has no terrestrial or hydrological links to any designated sites for nature conservation in the wider area. It is considered that the proposed development will not have any adverse direct or indirect adverse effect on any statutory or non-statutory designated sites present in the wider area.

4.3 Vegetation and Habitats

- 4.3.1 Only common and widespread plant species were found. None of the habitats present are representative of semi-natural habitat or are an irreplaceable habitat.
- 4.3.2 All recorded NVC communities present are common and widespread across lowland Britain and are typical of the geographical area and the agriculturally managed conditions present.
- 4.3.3 Hedgerow 1 at the northern site boundary is a Priority Habitat. The hedgerow does not meet the criteria be assessed as 'important' under *The Hedgerows Regulations 1997*. No other Priority Habitats are present at the site.

- 4.3.4 In terms of each habitat's importance in a geographical context⁸, Hedgerow 1 and the mature and semi-mature trees in Line of trees 1 are considered to be of 'local' importance as they create habitat connectivity with the wider tree and woodland network, support habitats of value to nesting birds and foraging birds and bats, and contribute to the creation of habitat structural diversity at the site and local area.
- 4.3.5 The individual trees and Line of trees 2 (Norway Spruce) are assessed to be of 'site' value for the support of breeding birds and provision of habitat connectivity.
- 4.3.6 The improved grassland and Bracken not considered to hold any importance on a geographical scale.
- 4.3.7 Indian Balsam, an invasive species listed under Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), has been detected within the site. It is considered that the proposals present an opportunity for the eradication this species as part of the proposed development. Further guidance is presented at **Section 5.3** of this report.

4.4 Protected Species and Other Wildlife

- 4.4.1 Retention and protection of the majority of the trees and hedgerow with connectivity to adjacent habitats (and supplementary native tree and scrub planting and grassland enhancement as part of the landscape proposals at the site) will conserve the opportunities at the site for use by foraging and commuting bats (refer to **Section 5.2**).
- 4.4.2 Inappropriate use and siting of artificial lighting at the site has the potential to degrade the value of the retained habitats, habitats in the wider area and the new habitats for use by foraging bats. In the presence of an appropriate lighting strategy, as outlined in **Section 5.2**, it is advised that opportunities for foraging bats will be conserved at the site.

Breeding Birds

- 4.4.3 Activities during the construction phase, including the removal of vegetation, have the potential to represent a direct effect on breeding and nesting birds in contravention of the *Wildlife and Countryside Act 1981* (as amended).
- 4.4.4 Mandatory actions to protect nesting birds during site clearance and measures to provide enhanced opportunities for nesting birds including Priority Species and conservation targets as part of the proposals are recommended at **Sections 5.2 to 5.4**. The measures as described in **Section 5.0** aim to attract other bird species by, for example, by the provision of opportunities for conservation target species.

Hedgehog and Other Wildlife

- 4.4.5 The habitats at the site are suitable for use by badger and Priority Species such as hedgehog and other wildlife such as sheltering common toad. Best practice guidance for the protection of wildlife to be applied prior to and during site clearance and construction operations are described in **Section 5.3**.

⁸ Using the terms presented at Section 4.7 of *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018), i.e. International and European, National, Regional, Local Authority-wide area, River Basin District, Estuarine system / Coastal cell or Local. The term 'site' value is additionally used to highlight ecological features considered to be of importance in the context of the wider site habitats, but which are of negligible value in the context of the local area.

Other Protected Species / Animal Life

- 4.4.6 Appropriate survey effort and / or assessment in accordance with standard guidance, has been carried out to reasonably discount adverse effects on relevant protected species. No further surveys for other protected species are necessary to inform a planning application.

5.0 RECOMMENDATIONS AND ECOLOGICAL ENHANCEMENT

5.1 Introduction

- 5.1.1 Ecological guidance, based on the baseline surveys, has been provided to the design team. The recommendations are presented in **Section 5.2**.
- 5.1.2 The recommendations and guidance provided in this section of the report, follow 'The Mitigation Hierarchy' (i.e. avoid, mitigate, compensate) and describe actions accommodated by the proposals plan and the *Softworks, Landscape Management and Maintenance Plan* (ZMA, 2025) to avoid significant effects on identified features of ecological value and minimise impacts where avoidance is not possible. In addition and where possible, opportunities to enhance the ecological interest and habitat connectivity and seek biodiversity gain through appropriate landscape planting and habitat creation have been identified to ensure compliance with Chapter 15, paragraph 193(d) of the NPPF which states:

'opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate'.

5.2 Recommendations in Relation to Site Layout / Design

Retention / Enhancement of Existing Habitats

- 5.2.1 In accordance with the mitigation hierarchy and ecological guidance the proposals achieve the following:
- Retention of the majority of Hedgerow 1 at the northern site boundary. A length of 14 metres will be removed to create the new site access; this is compensated for by the planting of 6 metres of new hedgerow at the existing field entrance and by the planting of a further 58 metres of native hedgerow within the site;
 - Retention of the whole of Line of trees 1 (and likely enhancement owing to the removal of the grazing sheep);
 - Retention of the majority of Line of trees 2 with the exception of the removal of a 10 metres long section to create the site access; this is compensated for by the planting of native hedgerows within the site, as described above;
 - Retention / conservation and, where feasible, enhancement of the modified grassland by overseeding with a forb-rich herb mix and appropriate management;
 - Retention of all individual trees; and
 - Retention of the majority of Bracken.

Appropriate Use of Lighting

- 5.2.2 Paragraph 198(c) in Chapter 15 (conserving and enhancing the natural environment) of the NPPF states that development should:

“limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation”

- 5.2.3 It is advised that any external lighting to be installed at the site must involve the use of appropriate products and screening, where necessary, to ensure no excessive artificial lighting shines over the retained vegetation and the habitats outside the curtilage of the site and areas of planting, as lighting overspill may deter use by wildlife such as foraging bats.
- 5.2.4 The lighting scheme will be designed with reference to current guidance, namely:
- Guidance Note 08/23: Bats and Artificial Lighting at Night* (Institution of Lighting Professionals & Bat Conservation Trust, 2023); and
 - Bats and lighting: Overview of current evidence and mitigation guidance (Stone, 2014).

5.3 Protection of Existing Features During Construction and Construction Environment Management Plan (CEMP) for Biodiversity

Introduction

- 5.3.1 To inform the site preparation and construction activities it is recommended that CEMP for Biodiversity is prepared and implemented. The CEMP for Biodiversity will describe the following actions / measures:

Protection of Habitats to be Retained / Enhanced

- 5.3.2 During the construction phase, temporary protective demarcation fencing will be used to protect the vegetation and habitats to be retained and enhanced. The fencing must remain in position until the end of the construction phase.

Dust Suppression, Incidents and Accidents

- 5.3.3 The risk of adverse effects on retained vegetation, habitats and wildlife as a result of dust, spills and leaks will be controlled by the application of best practice measures and appropriate environmental controls such as dust suppression, appropriate storage of chemicals and fuel, presence of spill kits and appropriate training of all on-site personnel.

Invasive Plant Species and Biosecurity

- 5.3.4 It is an offence under the *Wildlife and Countryside Act 1981* (as amended) to cause the spread Indian Balsam in the wild. It is advised that the removal of the Indian Balsam is carried out as part of the enhancement / management of habitats to be secured by the Habitat Management and Monitoring Plan (HMMP).
- 5.3.5 To minimise the risk of introduction of invasive species to the site and retained habitats, all machinery / plant to be brought to the site must be clean.

- 5.3.6 Wheels / tracks of machinery / plant must have been pressure washed before use at the site. No excessive remnant soil or plant material from other sites must be present on the machinery / plant or in the tyre treads as this may increase the risk of spread of non-native and invasive plant species e.g. Japanese Knotweed (*Fallopia japonica*) and Giant Hogweed (*Heracleum mantegazzianum*).

Nesting Birds

- 5.3.7 All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended) while they are breeding. It is advised that any works such as vegetation clearance that will affect habitats suitable for use by nesting birds are scheduled to commence outside the bird nesting season. Commencement of works in the nesting season must be informed by a pre-works nesting bird survey, carried out by a suitably experienced ecologist. The bird breeding season typically extends between March to August inclusive.
- 5.3.8 If breeding birds are detected the ecologist will issue guidance in relation to the protection of the nesting birds in conjunction with the scheduled works. This may involve cordoning off an area of the site until the young birds have fledged.

Best Practice for the Protection of Wildlife

- 5.3.9 During the site preparation and construction operations, for the protection of wildlife, including hedgehog and common toad, it is essential that the following best practice is applied:
- No trenches must be left open overnight. Trenches or holes must be properly covered with a board or fitted with a means of escape (such as ramped edge or a sloping plank of timber). This will ensure that any inquisitive wildlife do not become trapped;
 - Any pipes must be stored with caps on (to prevent entry by wildlife);
 - No fires must be lit at the site;
 - Any chemicals or harmful materials must be safely and correctly stored so that they cannot be accessed by inquisitive wildlife;
 - Between the current time and the commencement of site clearance it is recommended that the current agricultural management at the site is continued and the habitats are not permitted to grow dense or rank which may increase the opportunities for attraction of sheltering wildlife. If this is not possible then arrangements must be made for the progressive felling of the vegetation on the site prior to commencement of works on the site; and
 - Any queries / issues in relation to wildlife on site must be directed to ERAP (Consultant Ecologists) Ltd (01772 750502).

5.4 Additional Measures for the Enhancement of Biodiversity Within the Site

- 5.4.1 The following measures should be accommodated at the site to secure opportunities for wildlife:

Roosting Bats

- 5.4.2 To enhance the opportunities at the site for roosting bats it is recommended at least three bat boxes are installed on suitable retained trees within the site. An ecologist will advise on the siting of the bat boxes as needed.
- 5.4.3 Bat boxes should be installed to the following guidelines (Bat Conservation Trust, 2024)

- a. At least 4 metres above the ground (where safe installation is possible);
- b. Sheltered from strong winds and exposed to the sun for part of the day (usually south or south-west). Ideally several bat boxes will be installed to provide a variety of different thermal options for bats. Grouping a number of boxes each with a different aspect can achieve this; while a number of boxes is preferable to one, a single box is still viable and may be used by roosting bats;
- c. Located close to unlit linear features, such as lines of trees or hedgerows; and
- d. Installed where the bat box entrance is not cluttered or impeded by branches, or accessible to predators (such as cats) by large branches underneath them.

5.4.4 Suitable bat boxes are the Schwegler 1FF, Greenwood Ecohabitat's single or double cavity boxes and Schwegler 1FD, see **Insert 1**.



Insert 1: Schwegler 1FF, Greenwood Ecohabitat's single cavity and Schwegler 1FD bat boxes

Nesting Birds

5.4.5 Bird boxes suitable for use by woodland bird species should be installed at the retained trees within the site. An ecologist will advise on the siting of the bird boxes. The boxes should be at least 4 metres from ground level. A selection of the boxes presented at **Insert 2** should be used.



Insert 2: Schwegler 3S, Schwegler 1N, Schwegler 2M and Schwegler 2H bird boxes, suitable for a variety of woodland birds.

Landscape Planting

- 5.4.6 As outlined in the separate *Assessment of Biodiversity Net Gain* (ERAP (Consultant Ecologists) Ltd, 2025) the *Softworks, Landscape Management and Maintenance Plan* (ZMA, 2025) demonstrates that in addition to the retention (and enhancement) of the habitats as described above the following habitats will be created:
- a. A pond with associated marginal and emergent wetland plants and a buffer of meadow grassland;
 - b. Areas of native mixed scrub characterised by Hazel, Blackthorn and Hawthorn;
 - c. Reinstatement / creation / enhancement by over-seeding of modified grassland to be managed in 'moderate' condition; and
 - d. Planting of at least 69 native trees.
- 5.4.7 It is advised that the proposals will maximise opportunities for feeding invertebrates and for the attraction of foraging bats and birds.

5.5 Landscape and Habitat Management and Maintenance / Habitat Management and Monitoring Plan

- 5.5.1 To secure long-term benefits for biodiversity at the retained and created habitats at the site it is recommended that a Landscape and Habitat Management Plan (or similar) is prepared.
- 5.5.2 The proposed habitat creation and enhancement by habitat creation and management will also be secured by the preparation and implementation of actions in a Habitat Management and Monitoring Plan as required as part of the statutory biodiversity net gain assessment.

6.0 CONCLUSION

- 6.1 It is concluded that the holiday lodge proposals and landscape / habitat creation strategy that takes into account the ecological recommendations is feasible and acceptable in accordance with the identified ecological considerations and relevant planning policy.
- 6.2 The mitigation hierarchy has been applied and, in the presence of mandatory actions and best practice measures described in **Section 5.0**, adverse effects on designated sites for nature conservation are reasonably discounted and appropriate mitigation / compensation to address identified impacts on ecologically valuable habitats (namely removal of a section hedgerow) and protected species such as nesting birds are feasible and can be secured.
- 6.3 The report describes the appropriate and proportionate measures and recommendations that aim to enhance the value of the site for wildlife such as roosting bats, nesting birds and biodiversity. The recommendations comprise landscape planting, habitat creation and the application of positive habitat management in the long-term to achieve measurable gains for biodiversity and compliance with the NPPF, local planning policy and best practice.

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8.0 APPENDIX: TABLES AND FIGURES

8.1 Photographs

Table 8.1: Photographs



Photo 1: Modified grassland



Photo 2: Bracken



Photo 3: Hardstanding

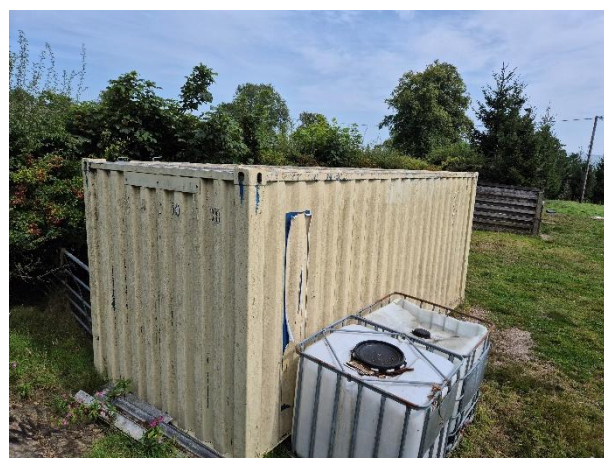


Photo 4: Container



Photo 5: T1 Cherry



Photo 6: T2 and T3: Silver Birch



Photo 7: T4 to T11: Norway Spruce



Photo 8: Hedgerow 1

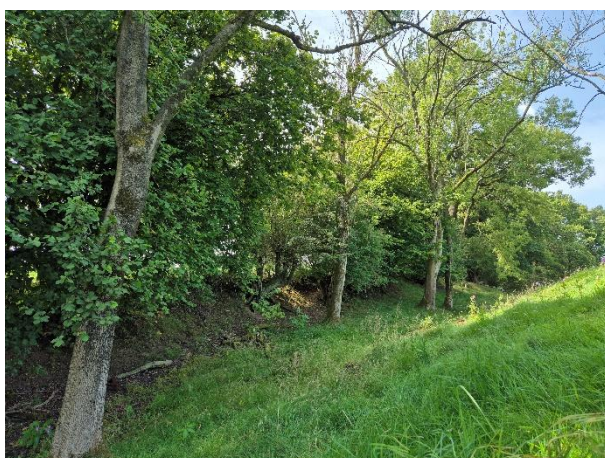


Photo 9: Line of trees 1



Photo 10: Line of trees 2

8.2 Plant Species Lists

Table 8.2: Plant Species List for Improved / Modified Grassland

Scientific Name	Common Name	DAFOR ¹	Cover
<i>Agrostis capillaris</i>	Common Bent	LF	1%
<i>Alopecurus pratensis</i>	Meadow Foxtail	F*	10%
<i>Cerastium fontanum</i>	Common Mouse Ear	VF	<1%
<i>Cirsium arvense</i>	Creeping Thistle	O	<1%
<i>Dactylis glomerata</i>	Cock's-foot	LA	2%
<i>Deschampsia cespitosa</i>	Tufted Hair-grass	VF	<1%
<i>Heracleum sphondylium</i>	Common Hogweed	R	<1%
<i>Holcus lanatus</i>	Yorkshire-fog	A*	30%
<i>Glyceria fluitans</i>	Floating Sweet-grass	LA	<1%
<i>Impatiens glandulifera</i>	Indian Balsam	VLF	<1%
<i>Juncus conglomeratus</i>	Compact Rush	VLF	1%
<i>Juncus effusus</i>	Soft Rush	VLA	2%
<i>Lolium perenne</i>	Perennial Rye-grass	A*	20%
<i>Poa pratensis</i>	Smooth Meadow-grass	A	10%
<i>Poa trivialis</i>	Rough Meadow-grass	A*	30%
<i>Pteridium aquilinum</i>	Bracken	LA	2%
<i>Ranunculus repens</i>	Creeping Buttercup	VLA	<1%
<i>Rumex obtusifolius</i>	Broad-leaved Dock	O	<1%
<i>Taraxacum officinale</i> agg.	Dandelion	O	<1%
<i>Trifolium repens</i>	White Clover	VLA	<1%
<i>Urtica dioica</i>	Common Nettle	R	<1%

¹Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species

Table 8.3: Plant Species List for Hedgerow 1

Scientific Name	Common Name	DAFOR ¹	Cover
Woody Species			
<i>Acer pseudoplatanus</i>	Sycamore	F	2%
<i>Corylus avellana</i>	Hazel	LF	2%
<i>Crataegus monogyna</i>	Hawthorn	A*	90%
<i>Rosa canina</i>	Dog-rose	F	1%
<i>Sambucus nigra</i>	Elder	LA	2%
Herb Species			
<i>Alliaria petiolata</i>	Garlic Mustard	LA	<1%
<i>Anthriscus sylvestris</i>	Cow Parsley	LA	5%
<i>Arrhenatherum elatius</i>	False Oat-grass	LA	1%
<i>Arum maculatum</i>	Arum lily	O	<1%
<i>Bromus sterilis</i>	Barren Brome	LA	<1%
<i>Calystegia sepium</i>	Hedge Bindweed	R	<1%
<i>Cirsium arvense</i>	Creeping Thistle	O	<1%
<i>Cirsium vulgare</i>	Spear Thistle	O	<1%
<i>Dactylis glomerata</i>	Cock's-foot	F	5%
<i>Elytrigia repens</i>	Common Couch	LF	2%
<i>Equisetum arvense</i>	Field Horsetail	VLA	<1%
<i>Filipendula ulmaria</i>	Meadowsweet	LA	<1%
<i>Galium aparine</i>	Cleavers	F	2%
<i>Geum urbanum</i>	Wood Avens	O	<1%
<i>Heracleum sphondylium</i>	Common Hogweed	O	<1%
<i>Hedera helix</i>	Ivy	A	25%
<i>Holcus lanatus</i>	Yorkshire-fog	F	5%
<i>Mercurialis perennis</i>	Dog's Mercury	LA	10%
<i>Poa pratensis</i>	Smooth Meadow-grass	F	5%
<i>Rubus fruticosus</i> agg.	Bramble	A	30%
<i>Taraxacum officinale</i> agg.	Dandelion	O	<1%
<i>Urtica dioica</i>	Common Nettle	F	20%
<i>Vicia cracca</i>	Tufted Vetch	VLA	<1%

¹Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species.
Species highlighted in grey are classed as either 'woody' or 'woodland' species contributing to *The Hedgerows Regulations 1997* wildlife and landscape criteria assessment.

Table 8.4: Plant Species List for Line of Trees 1 at the Southern Margin

Scientific Name	Common Name	DAFOR ¹	Cover
Canopy			
<i>Fagus sylvatica</i>	Beech	LA	5%
<i>Fraxinus excelsior</i>	Ash	A*	60%
<i>Quercus robur</i>	Oak	F	20%
Shrub Layer			
<i>Corylus avellana</i>	Hazel	F	10%
<i>Crataegus monogyna</i>	Hawthorn	A	20%
<i>Ilex aquifolium</i>	Holly	LA	10%
<i>Sambucus nigra</i>	Elder	O	2%
Herb Species			
<i>Agrostis capillaris</i>	Common Bent	O	1%
<i>Alliaria petiolata</i>	Garlic Mustard	O	1%
<i>Arrhenatherum elatius</i>	False Oat-grass	A*	25%
<i>Holcus lanatus</i>	Yorkshire-fog	F*	20%
<i>Chrysosplenium oppositifolium</i>	Opposite-leaved Golden Saxifrage	R	<1%
<i>Digitalis purpurea</i>	Foxglove	O	1%
<i>Dryopteris dilatata</i>	Broad Buckler-fern	R	<1%
<i>Festuca rubra</i>	Red Fescue	LF	<1%
<i>Geranium robertianum</i>	Herb-Robert	VLA	<1%
<i>Holcus mollis</i>	Creeping Soft-grass	VLF	1%
<i>Juncus effusus</i>	Soft Rush	R	<1%
<i>Lolium perenne</i>	Perennial Rye-grass	F*	10%
<i>Ranunculus repens</i>	Creeping Buttercup	VLF	<1%
<i>Rubus fruticosus</i> agg.	Bramble	R	<1%
<i>Rumex sanguineus</i>	Wood Dock	O	1%
<i>Stachys sylvatica</i>	Hedge Woundwort	O	1%
¹ Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species			

8.3 Assessment under *The Hedgerows Regulations 1997*

Table 8.5: Assessment of Hedgerow 1 under *The Hedgerows Regulations 1997*

	Hedgerow Name	Hedgerow 1		
Description	Height x width (metres)	3 metres by 0.8 metres		
	Length (metres)	97 metres		
	Continuity	100%		
	Management	Cut on sites		
Woody Species	Section number ¹	1	2	3
	Qualifying woody species	3	-	-
	Average Number	3		
Number of Features Present	(a) Bank or wall along at least ½ length	No		
	(b) Gaps which in agg. do not exceed 10%	Yes		
	(c)-(e) 1 standard tree per 50m	No		
	(f) At least 3 woodland species within 1m	Yes		
	(g) Ditch along at least ½ its length	No		
	(h) Connections scoring 4 points or more	No		
	(i) Parallel hedge within 15m	Yes		
	Total Features	3		
Hedgerow Importance	Criteria for Hedgerow Importance 1	No		
	Criteria for Hedgerow Importance 2:	No		
	Criteria for Hedgerow Importance 3:	No		

Hedgerow Important Criteria	Criteria for Hedgerow Importance 1: Hedgerow contains species listed as: (1) Part 1 of Schedule 1, Schedule 5 or Schedule 8 of <i>Wildlife and Countryside Act 1981</i> (as amended); (2) Declining breeders in 'Red Data Birds of Britain'; and / or (3) Categorised as 'endangered', 'extinct' or 'vulnerable'
	Criteria for Hedgerow Importance 2: Hedgerow includes (Number of woody species required reduced by one in Lancashire): (i) At least 7 woody species (on average); (ii) At least 6 woody species (on average) and at least 3 features; (iii) At least 6 woody species (on average), including one of: Black Poplar, Large-leaved Lime, Small-leaved Lime or Wild Service Tree; and / or; (iv) At least 5 woody species (on average), and has 4 features
	Criteria for Hedgerow Importance 3: Is adjacent to is adjacent to a bridleway, footpath or byway and includes at least 4 woody species on average and 2 features from (a) to (g).
	¹ Up to and including 100 metres length = 1 section required. 100 to 200 metres length = 2 sections required Greater than 200 metres length = 3 sections required.

8.4 Figures

Figure 1: Aerial Image of the Site and its Surroundings

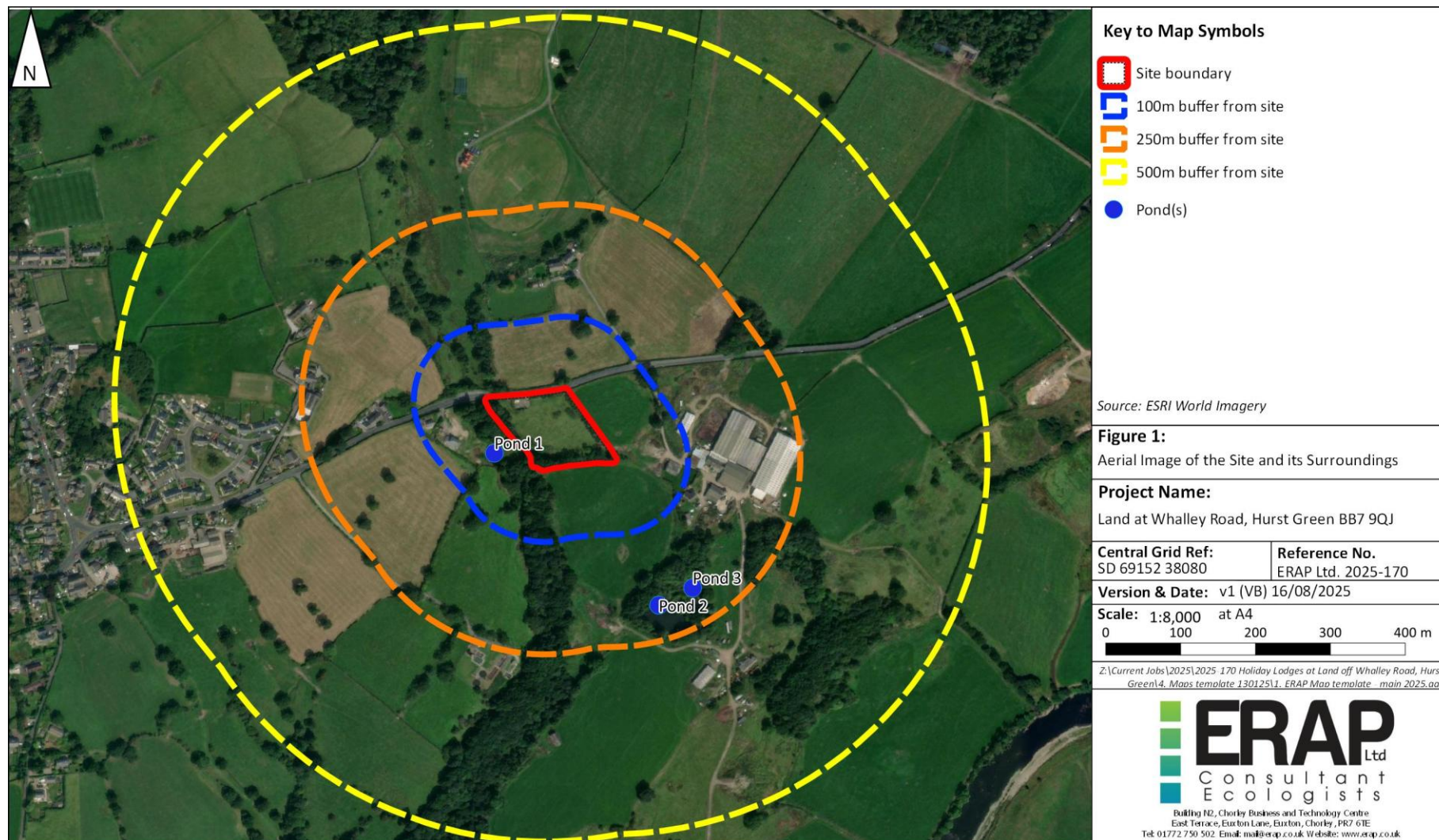


Figure 2: Phase 1 Habitat Survey Map

