

Land at Clitheroe Road, Whalley BB7 9AD

ECOLOGICAL SURVEY AND ASSESSMENT

August 2025

ERAP (Consultant Ecologists) Ltd Reference: 2024-355

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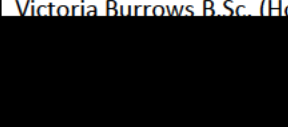
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SUMMARY

Introduction and Scope

- i. This report presents the results of an ecological survey and assessment carried out at the land off Clitheroe Road, Whalley BB7 9AD. The assessment was requested to inform a planning application proposing the development of the site to residential housing.
- ii. This report presents the results of a desktop study and data search, an extended Phase 1 Habitat Survey and assessment 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 Layout* and the *Landscape Proposals* (TBA Landscape Architecture, 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 3.4203 hectare site lies to the east of Clitheroe Road, Whalley and comprises a field of agriculturally improved modified grassland. A belt of woodland and dense Blackthorn scrub lies along the western site margin and northern area of the site. Other habitats include areas of Bramble scrub, tall forbs and scattered individual trees.
- v. 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.
- vi. No semi-natural habitats, irreplaceable habitats or Priority Habitat are present at the site. Other than the presence of Rhododendron shrubs in the woodland at the western site margin no other invasive plant species as listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were found.
- vii. The mature and semi-mature trees and the woodland habitats are considered to be of 'local' importance as they create habitat connectivity with the wider tree and woodland network and support habitats of value to nesting birds and foraging birds and bats, and contribute to the habitat structural diversity at the site and local area. The *Proposed Site Layout* has been through a number of iterations to secure the conservation / retention of as many trees and area of woodland as possible. The retention of these habitats in conjunction with enhancement by appropriate management and habitat creation (refer to **Section 5.2**) and the buffering of the habitats with complementary habitats of scrub and grassland, particularly along the northern margin of the site, will avoid a significant impact of the proposals on the integrity and ecological function of the woodland, groups of trees and scrub.
- viii. The Blackthorn and Bramble scrub habitats are assessed to be of 'site' value for the support of breeding birds and provision of habitat connectivity and retention of this habitat is proposed.
- ix. The modified grassland, tall forbs and drain are not considered to hold any importance on a geographical scale and the development area is primarily focused at the modified grassland and tall forb habitats.

- x. 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**. Nine trees scheduled to be removed and six trees advised for pruning are identified to have suitability for use by roosting bats (PRF-I) and an appropriate method statement is outlined in **Section 5.3**.
- xi. 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 such as starling and house sparrow (Priority Species), swift and woodland birds are detailed in **Section 5.4**.
- xii. The habitats at the site are suitable for use by badger and Priority Species such as brown hare, hedgehog 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**.
- xiii. 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

- xiv. It is concluded that development at the site in accordance with an appropriate site layout 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.
- xv. 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 tree loss) and protected species are feasible and can be secured.
- xvi. 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 Pringle Homes to carry out an ecological assessment of land at Clitheroe Road, Whalley (hereafter referred to as the 'site'). The Ordnance Survey (OS) grid reference at the centre of the site is SD 73615 37105. 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 in connection with a planning application proposing the development of the site to residential housing.

1.2 Scope of Works

- 1.2.1 The scope of ecological works undertaken in January and August 2025 comprised:
- A desktop study and data search for known ecological information at the site and the local area;
 - 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);
 - 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;
 - Survey and assessment of all habitats for relevant statutorily protected species¹ and other wildlife including badger (*Meles meles*), great crested newt (*Triturus cristatus*), water vole (*Arvicola amphibius*), bird species and reptiles;
 - 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 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.

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);
- d. Lancashire Environment Record Network (LERN); and
- e. Lancashire Biodiversity Action Plan (BAP).

2.1.2 The tree survey report *Survey Details for Trees on Land at Clitheroe Road, Whalley* (Iain Tavendale, 2025) and the associated plans have been used to ensure consistency with tree numbers and to determine the size classes relevant to the assessment of biodiversity net gain.

2.2 Survey Dates and Conditions

2.2.1 The initial ecological survey was carried out by Victoria Burrows on 16th January 2025. The weather was dry, sunny and calm (Beaufort scale 0) with an air temperature of 1°C.

2.2.2 An updated walkover survey was carried out on 6th August 2025 with the aim of detecting any later emerging plant species. The weather on this date was dry and sunny with a light air (Beaufort scale 1) and an air temperature of 19°C.

2.3 Vegetation and Habitats

2.3.1 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.

2.3.2 On site habitat mapping was assisted via use of GPS technology, using a topographical plan (JLP Surveying, 2024) and *ESRI World Imagery* as base plans. The topographical 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*.

2.3.3 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.

2.3.4 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.

- 2.3.5 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.
- 2.3.6 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).
- 2.3.7 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*).

2.4 Animal Life

Badger

- 2.4.1 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 / highway land beyond the site boundary were not accessed but these areas were viewed from the site boundary.
- 2.4.2 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).
- 2.4.3 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.
- 2.4.4 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).

Bat Species

Survey Personnel

- 2.4.5 The site was assessed for its suitability to support foraging, commuting 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

- 2.4.6 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

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

2.4.9 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).

2.4.10 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 2.2**.

Table 2.2: 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. |

2.4.11 Where suitable features were detected further inspections at height using (where suitable) ladders, a high-powered torch, and a video borescope were carried out. The following signs of roosting bats were searched for:

Bats, bat droppings (in, around or below the feature), odours emanating from the feature, staining below the feature, and the presence of smoothed surfaces within the feature, indicative of regular passage by small mammals.

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

Equipment

2.4.13 A list of equipment used is detailed in **Table 2.33**.

Table 2.3: 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 |

Bird Species

2.4.14 Bird species observed and heard during the survey were recorded.

- 2.4.15 Habitats throughout the site and in the immediate surrounding area were assessed for their value to roosting, feeding and nesting birds, as indicated by the amount of shelter, feeding value, woody vegetation structure and species diversity of tree and shrub species in the site.

Great Crested Newt and Other Amphibian Species

Desktop Search for Ponds

- 2.4.16 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.
- 2.4.17 The search of habitats in the wider area up to a distance of 500 metres from the site boundary revealed the possible presence of two 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 73216 36842 | 318 metres | In land to the west on the opposite side of Clitheroe Road and existing residential properties. |
| 2 | SD 73182 36838 | 358 metres | In land to the west on the opposite side of Clitheroe Road and existing residential properties. |

Consideration of Requirement for Further Survey

- 2.4.18 The requirement for further survey at each pond was then assessed using the following criteria:
- Results of the desktop study and data search;
 - Presence of dispersal barriers to great crested newt movements between ponds and the site, as detected during the walkover survey; and
 - 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.

Results of Data Search

- 2.4.19 As outlined in **Table 3.2**, positive great crested newt records, dated 2011, are reported at Ponds 1 and 2.

Presence of Dispersal Barriers

- 2.4.20 Ponds 1 and 2 lie on the opposite side of Clitheroe Road and a row of existing residential properties. These land uses are considered to be physical dispersal barriers to the movement of amphibian species between Ponds 1 and 2 and the site.

Consideration of Distance of Ponds from Site and Relative Size of Site

- 2.4.21 The Natural England Rapid Risk Assessment tool from *GCN Method Statement WML-A14-2 (Version April 2020)* (Natural England, 2020) has been completed and is presented in **Table 2.5**.
- 2.4.22 The tool has been completed based on the distances of the ponds from the site, the size of the development site (3.4203 hectares, or 'ha') and the reported presence of great crested newt.

Table 2.5: Rapid Risk Assessment Result

| Component | Likely Effect | Notional Offence Probability Score |
|--|--------------------------------|------------------------------------|
| Great crested newt breeding pond(s) | No effect | 0 |
| Land within 100m of any breeding pond(s) | No effect | 0 |
| Land 100-250m from any breeding pond(s) | No effect | 0 |
| Land >250m from any breeding pond(s) | 1 - 5 ha lost or damaged | 0.04 |
| Individual great crested newts | No effect | 0 |
| Maximum: | | 0.04 |
| Rapid risk assessment result: | GREEN: OFFENCE HIGHLY UNLIKELY | |

Requirement for Further Survey

- 2.4.23 In consideration of the combination of the presence of Clitheroe Road between Ponds 1 and 2 and the site and due to the results of the Natural England Rapid Risk Assessment, which indicates that the site is sufficiently small and distant from all ponds that it is highly unlikely any offence would be committed should the development proceed, it is not considered necessary to carry out any further survey / assessment for great crested newt.
- 2.4.24 Given the distance to the nearest ponds and the separation from the site it is advised that this assessment is also of relevance to other amphibian species.

Reptile Species

- 2.4.25 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 2.6**.

Table 2.6: 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 |

Water Vole

- 2.4.26 A short (34 metres long) section of ephemeral / seasonally flooded ditch lies at the north-eastern corner of the site. The ditch was searched for evidence of use by water vole on the site visits in January and August 2025.
- 2.4.27 The survey methods detailed in *Water Vole Field Signs and Habitat Assessment: A Practical Guide to Water Vole Surveys* (Dean, 2021) and *The Water Vole Mitigation Handbook (The Mammal Society Mitigation Guidance Series)* Eds. Fiona Mathews and Paul Chanin (Dean, et al., 2016), were applied and the ditch and its associated banks were searched for burrows, latrines, feeding remains, runs, feeding lawns, nests and footprints.

2.4.28 The suitability of ditch for water vole has been assessed using Table 2.1 of *Water Vole Field Signs and Habitat Assessment: A Practical Guide to Water Vole Surveys* (Dean, 2021), as reproduced in **Table 2.7**.

Table 2.7: Reproduction of Table 2.1, *Water Vole Field Signs and Habitat Assessment, A Practical Guide to Water Vole Surveys*

| Habitat Category | Dry Areas for Burrows or Nests | | | Herbaceous Vegetation | Water |
|-------------------------------|--|---|---|--|---|
| | Bank Profile | Bank Substrate | Variation in Water Level | | |
| Optimal ¹ | Steep (approaching 1:1) on at least on side of the watercourse. Steep or shallow banks on static waterbodies or fen-type habitat, where water levels do not fluctuate significantly. | Earth or peat. | No noticeable variation during the summer months; banks are not overtopped regularly. | Continuous swathe of tall and luxurious riparian vegetation providing 90-100% cover on the banks (tall tussocky grassland) and marginal / in-channel vegetation is present (emergent species). | Permanent water. |
| Good ¹ | Steep (approaching 1:1) on at least one side of a watercourse. Steep or shallow banks on static waterbodies or fen-type habitat, where water levels do not fluctuate significantly. | Earth or peat banks, or stony / reinforced banks with gaps allowing access to the earth behind. | No noticeable variation during the summer months; banks are not overtopped regularly. | Continuous swathe of bankside or in-channel (emergent) vegetation providing at least 60% ground cover. May be dominated by grasses and weeds, rather than luxurious riparian vegetation. The vegetation should generally be tall, except in urban or suburban areas, where shorter bankside vegetation may also qualify. | Permanent water, or routinely wet for at least 2 to 3 months during the summer, and where other 'good' habitat is present in immediately adjacent areas with permanent water. |
| Negligible value ² | Shallow profile on both banks, or vertical bank face with no burrowing opportunities behind it. | Rocky or gravel, unsuitable for burrowing, or reinforced banks with no gaps. | Considerable variation in water level – the bank toe can move by more than 1 metre horizontally over the breeding season. | No or limited bankside and marginal vegetation (due to shading or other 'permanent' factors – note that management can change and is often a 'temporary' factor). | N/A. |
| Suitable but poor | Any habitat that falls short of the criteria to qualify as 'good' but does not meet the criteria of 'negligible value' could reasonably be considered to be 'suitable but poor' | | | | |

¹All criteria need to be met.

²Will generally need to meet the criteria for herbaceous vegetation and at least one other.

Other Wildlife

- 2.4.29 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.
- 2.4.30 Habitats have been assessed for their suitability for Priority Species identified in the data search results where this is considered relevant to the application.

2.5 Survey and Reporting Limitations

- 2.5.1 The initial survey was conducted in winter, when many plant species may not have emerged / or are not yet in flower. The surveyor is experienced in surveying plant species from their vegetative characteristics, and it has been possible to reliably identify the habitats and principal plant species present. In addition, a second updated site walkover was carried out on 6th August 2025 to address this limitation and to update the plant species lists.
- 2.5.2 No other limitations on the intended scope of survey were experienced.
- 2.5.3 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.

2.6 Evaluation Methods

- 2.6.1 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.
- 2.6.2 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.
- 2.6.3 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*

²Hereafter the NPPF

(Amendment) (EU Exit) Regulations 2019, is referenced where applicable, and any impacts to protected species are evaluated in accordance with current guidance.

- 2.6.4 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 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 Light Clough SSSI located 1.45 kilometres to the north-east of the site and is designated for its geological importance.
- 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):
- Infrastructure:** Pipelines and underground cables, pylons and overhead cables (excluding upgrades and refurbishment of existing network). Any transport proposal including new or extended footways, cycleways, roads / car parks, railways and waterways (excluding routine maintenance). Airports, helipads and other aviation proposals.
 - 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.
 - Waste:** Landfill. Including: inert landfill, non-hazardous landfill, hazardous landfill.
 - Water Supply:** Large infrastructure such as warehousing / industry where the total net additional gross internal floorspace following development is 1,000m² or more.

- 3.1.4 The Natural England Impact Risk Zone 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 designation for nature conservation, called 'Biological Heritage Sites' or 'BHS' in Lancashire.

3.1.6 Ten 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 |
|---|--------------------------------------|---|
| Spring Wood | 0.59 kilometres south-east | Semi-natural woodland which is identified within Natural England's Inventory of Ancient Woodland. |
| Calderstones Hospital Woodland/Railway Line | 0.68 kilometres north-west | An area of Alder-Willow carr woodland with adjoining swamp and grassland to the west and a section of dismantled railway to the east. |
| Barrow Brook Field | 0.89 kilometres north-west | A triangular field south of Barrow Brook and alongside the railway. It supports damp, species-rich, semi-natural, neutral grassland referable to the MG4 <i>Alopecurus pratensis-Sanguisorba officinalis</i> grassland of the National Vegetation Classification. |
| Hard Hill Common | 0.95 kilometres north-west | The site's southern boundary is defined by Barrow Brook, with the Blackburn to Skipton railway line creating something of an artificial boundary to the east. The site comprises small-localised areas of Purple Moor-grass/Rush Pasture and diverse flushed habitats adjacent to the stream crossing the field towards the north. |
| Calder Bank, Broken Brow | 1.05 kilometres south | A steep banking situated along the north side of the River Calder, approximately 0.5km east of Whalley. It is notable for 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> . This is currently the only known location for Rough Horsetail in Vice County 59. |
| Sir John's Wood and Lords Park Wood | 1.1 kilometres south | Semi-natural woodland which is identified within Natural England's Inventory of Ancient Woodland. |
| Planes Wood | 1.43 kilometres south-east | Semi-natural woodland which is identified within Natural England's Inventory of Ancient Woodland. |

| BHS Name | Distance and Direction from the Site | Reasons for Designation |
|----------------------|--------------------------------------|--|
| Banks Wood and Marsh | 1.66 kilometres south | Ancient semi-natural woodland listed in the <i>Lancashire Inventory of Ancient Woodland (Provisional)</i> , (English Nature, 1994), with flushes and areas of alder carr, fen and species-rich grassland, along the western banks of the River Calder in Great Harwood. Of particular interest is Yellow Star-of-Bethlehem, a species included in the <i>Provisional Lancashire Red Data List of Vascular Plants</i> . |
| Mitton Wood | 1.72 kilometres west | Semi-natural woodland situated approximately 1.5 km 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). |
| Thornber Wood | 1.76 kilometres south-east | A small semi-natural wood situated on the north side of Sabden Road, near Whalley. |

3.1.7 The presence of the BHS is considered further at **Section 4.2**.

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.

3.1.9 An off-site area adjacent to the south-eastern site boundary is identified as supporting 'Deciduous Woodland' by the Priority Habitats inventory.

Ancient Tree Inventory

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

Main River Designation

3.1.11 In accordance with *Main River Map* (Environment Agency, 2025) the ditch at the north-eastern corner of the site is not a Main River.

Protected and Notable Species

3.1.12 Lancashire Environment Record Network (LERN) hold no records of protected and notable species for the site.

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

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.

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>): WCAs5 & LBAP. 53 records, dated between 1985 and 2013. The closest record is 215 metres to the south, and from 2011. |
| | Common toad (<i>Bufo bufo</i>): WCAs5, PS & LBAP. 9 records, dated between 1985 and 2013. The closest record is 600 metres to the south-east, and from 1997. |
| | Great crested newt (<i>Triturus cristatus</i>): EPS, WCAs5, PS & LBAP. 40 records, dated between 1914 and 2011. The closest record is 100 metres to the south-west (on the opposite side of Clitheroe Road) and from 2009. |
| | Great crested newt records dated 2011 are also associated with Ponds 1 and 2 to the east. |
| | Palmate newt (<i>Lissotriton helveticus</i>): WCAs5. 35 records, dated between 1997 and 2011. The closest record is 275 metres to the south, and from 2011. |
| | Smooth newt (<i>Lissotriton vulgaris</i>): WCAs5. 14 records, dated between 1997 and 2011. The closest record is 425 metres to the south-west, and from 2011. |
| Birds – WCAs1 | Barn owl (<i>Tyto alba</i>): WCAs1 1 record from 2007. An accurate estimation of distance of the record to the site cannot be made due to the locational data being less than a six figure grid reference |
| | Brambling (<i>Fringilla montifringilla</i>): WCAs1 1 record from 2007. An accurate estimation of distance of the record to the site cannot be made due to the locational data being less than a six figure grid reference |
| | Fieldfare (<i>Turdus pilaris</i>): WCAs1. 3 records, all from 2007. An accurate estimation of distance of the record to the site cannot be made due to the locational data being less than a six figure grid reference |
| | Goldeneye (<i>Bucephala clangula</i>): WCAs1 1 record from 2007. An accurate estimation of distance of the record to the site cannot be made due to the locational data being less than a six figure grid reference |
| | Goshawk (<i>Accipiter gentilis</i>): WCAs1 & LBAP. 2 records, dated 2007 and 2010. An accurate estimation of distance and direction of the record to the site cannot be made due to the locational data being less than a six figure grid reference |
| | Greenshank (<i>Tringa nebularia</i>): WCAs1 1 record from 2007. An accurate estimation of distance of the record to the site cannot be made due to the locational data being less than a six figure grid reference |
| | Greylag goose (<i>Anser anser</i>): WCAs1. 2 records, dated 1999 and 2007. An accurate estimation of distance and direction of the record to the site cannot be made due to the locational data being less than a six figure grid reference |
| | Hen harrier (<i>Circus cyaneus</i>): WCAs1 & LBAP 1 record from 2007. An accurate estimation of distance of the record to the site cannot be made due to the locational data being less than a six figure grid reference |
| | Kingfisher (<i>Alcedo atthis</i>): WCAs1. 2 records, both from 2007. An accurate estimation of distance and direction of the record to the site cannot be made due to the locational data being less than a six figure grid reference |
| | Peregrine (<i>Falco peregrinus</i>): WCAs1 & LBAP. 2 records, both from 2007. An accurate estimation of distance and direction of the record to the site cannot be made due to the locational data being less than a six figure grid reference |
| | Redwing (<i>Turdus iliacus</i>): WCAs1. 3 records, all from 2007. An accurate estimation of distance of the record to the site cannot be made due to the locational data being less than a six figure grid reference |
| | Whooper swan (<i>Cygnus cygnus</i>): WCAs1 & LBAP 1 record from 2007. An accurate estimation of distance of the record to the site cannot be made due to the locational data being less than a six figure grid reference |

| Taxon Group | Species Name and Designations ¹ and Notes |
|----------------------------|---|
| Birds – PS and LBAP | <p>PS & LBAP: Skylark (<i>Alauda arvensis</i>), cuckoo (<i>Cuculus canorus</i>), lesser spotted woodpecker (<i>Dendrocopos minor</i>), reed bunting (<i>Emberiza schoeniclus</i>), herring gull (<i>Larus argentatus</i>), grasshopper warbler (<i>Locustella naevia</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>), wood warbler (<i>Phylloscopus sibilatrix</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>).</p> <p>PS Only: Lesser redpoll (<i>Acanthis cabaret</i>), linnet (<i>Linaria cannabina</i>) and marsh tit (<i>Poecile palustris</i>).</p> <p>LBAP Only: Common sandpiper (<i>Actitis hypoleucos</i>), meadow pipit (<i>Anthus pratensis</i>), swift (<i>Apus apus</i>), grey heron (<i>Ardea cinerea</i>), short-eared owl (<i>Asio flammeus</i>), long-eared owl (<i>Asio otus</i>), black-headed gull (<i>Chroicocephalus ridibundus</i>), raven (<i>Corvus corax</i>), kestrel (<i>Falco tinnunculus</i>), snipe (<i>Gallinago gallinago</i>), oystercatcher (<i>Haematopus ostralegus</i>), lesser black-backed gull (<i>Larus fuscus</i>), great black-backed gull (<i>Larus marinus</i>), willow warbler (<i>Phylloscopus trochilus</i>) and redshank (<i>Tringa totanus</i>).</p> |
| Bony Fish | <p>PS & LBAP: European eel (<i>Anguilla anguilla</i>), Atlantic salmon (<i>Salmo salar</i>) and brown/sea trout (<i>Salmo trutta</i>).</p> <p>LBAP Only: Bullhead (<i>Cottus gobio</i>).</p> |
| Flowering Plants | <p>PS & LBAP: Lesser Butterfly-orchid (<i>Platanthera bifolia</i>).</p> <p>PS Only: Cornflower (<i>Centaurea cyanus</i>).</p> <p>LBAP Only: Green-winged Orchid (<i>Anacamptis morio</i>), Barberry (<i>Berberis vulgaris</i>), White Bryony (<i>Bryonia dioica</i>), Thin-spiked Wood-sedge (<i>Carex strigosa</i>), Few-flowered Spike-rush (<i>Eleocharis quinqueflora</i>), Fragrant Orchid (<i>Gymnadenia conopsea</i>), Black Poplar (<i>Populus nigra</i> subsp. <i>betulifolia</i>), Bird's-eye Primrose (<i>Primula farinosa</i>), Downy Currant (<i>Ribes spicatum</i>), Northern Yellow-cress (<i>Rorippa islandica</i>), Lesser Skullcap (<i>Scutellaria minor</i>), Common Meadow-rue (<i>Thalictrum flavum</i>) and Globeflower (<i>Trollius europaeus</i>).</p> |
| Horsetail | <p>LBAP Only: Rough horsetail (<i>Equisetum hyemale</i>) and horsetail (<i>Equisetum palustre</i> x <i>telmateia</i> = <i>E. x font-queri</i>).</p> |
| Insect – Butterfly | <p>PS & LBAP: Wall (<i>Lasiommata megera</i>).</p> <p>LBAP Only: Ringlet (<i>Aphantopus hyperantus</i>).</p> |
| Insect – Moth | <p>PS Only: Small square-spot (<i>Diarsia rubi</i>), small phoenix (<i>Ecliptopera silaceata</i>) and cinnabar (<i>Tyria jacobaeae</i>).</p> <p>LBAP Only: Lunar hornet moth (<i>Sesia bembeciformis</i>).</p> |
| Terrestrial Mammals | <p>Bats (Order <i>Chiroptera</i>): EPS, WCAs5 & LBAP. 1 record from 2009, located 65 metres to the south.</p> <p>Brown hare (<i>Lepus europaeus</i>): PS & LBAP. 8 records, dated between 1977 and 2015. The closest record is 965 metres to the north, and from 2013.</p> <p>Brown long-eared bat (<i>Plecotus auritus</i>): EPS, WCAs5, PS & LBAP. 1 record from 2015, located 860 metres to the north-west.</p> <p>Common pipistrelle (<i>Pipistrellus pipistrellus</i>): EPS & WCAs5. 4 records, dated between 2010 and 2015. The closest record is 860 metres to the north-west, and from 2015.</p> <p>Eurasian badger (<i>Meles meles</i>): PBA. 1 record from 2014. Further information is not disclosed here.</p> <p>European otter (<i>Lutra lutra</i>): EPS, WCAs5, PS & LBAP. 1 record from 2015, located 1330 metres to the south-west.</p> <p>European water vole (<i>Arvicola amphibius</i>): WCAs5, PS & LBAP. 4 records, all from 1977. The closest record is 1465 metres to the north-east.</p> <p>Noctule bat (<i>Nyctalus noctula</i>): EPS, WCAs5, PS & LBAP. 2 records, dated 2014 and 2015. The closest record is 860 metres to the north-west, and from 2015.</p> <p>Pipistrelle bat species (<i>Pipistrellus</i> sp.): EPS, WCAs5 & LBAP. 5 records, dated between 1998 and 2017. The closest record is 620 metres to the north, and from 2009.</p> |

| Taxon Group | Species Name and Designations ¹ and Notes |
|---|---|
| | Soprano pipistrelle (<i>Pipistrellus pygmaeus</i>): EPS, WCAs5, PS & LBAP. 4 records, dated between 2010 and 2015. The closest record is 860 metres to the north-west, and from 2015. |
| | Unidentified Myotis bat (<i>Myotis</i> sp.): EPS, WCAs5 & LBAP. 2 records, dated 2014 and 2015. The closest record is 860 metres to the north-west, and from 2015. |
| | West European hedgehog (<i>Erinaceus europaeus</i>): PS & LBAP. 11 records, dated between 1977 and 2020. The closest record is 265 metres to the south-west, and from 2020. |
| ¹Key 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). PBA = Protection of Badger Act 1992. PS = Priority Species listed under Section 41 of the NERC Act 2006. LBAP = Species listed on the Lancashire Biodiversity Action Plan. | |

- 3.1.14 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 3.4203 ha site lies to the east of Clitheroe Road, Whalley and comprises a field of agriculturally improved modified grassland. A belt of woodland and dense Blackthorn scrub lies along the western site margin and across the northern area of the site. Other habitats include areas of Bramble (*Rubus fruticosus* agg.) scrub, tall forbs and scattered individual trees.
- 3.2.2 The northern site boundary meets a timber fence and structure planting of Sycamore (*Acer pseudoplatanus*), Ash (*Fraxinus excelsior*), Hawthorn (*Crataegus monogyna*), Alder (*Alnus glutinosa*), Holly (*Ilex aquifolium*) and Dog-rose (*Rosa canina*) with a shaded understorey of Cock's-foot (*Dactylis glomerata*), Male-fern (*Dryopteris filix-mas*), Lesser Celandine (*Ficaria verna*) and mosses associated with the A59. The western site boundary meets Clitheroe Road. The southern site boundary is demarcated by a fence, beyond which lies a row of mature Lime (*Tilia* sp.) trees and a track leading to a residential property. The eastern site boundary is demarcated by a fence beyond which is grassland, woodland and scrub associated with the grounds of the residential property.
- 3.2.3 A Phase 1 Habitat Survey map is appended **Figure 2**. Photographs are appended in **Section 8.1**.

Improved / Modified Grassland

Modified Grassland A

- 3.2.4 Refer to **Photos 1** and **21**. The modified / semi-improved grassland at the north-eastern corner of the site is not currently managed and is characterised by abundant Rough Meadow-grass (*Poa trivialis*) and Cock's-foot with frequent Yorkshire-fog (*Holcus lanatus*), Perennial Rye-grass (*Lolium perenne*) and Meadow Foxtail (*Alopecurus pratensis*). The absence of management has permitted encroachment by frequent Great Horsetail (*Equisetum telmateia*), locally abundant Bramble and an increased cover of tall forbs such as locally abundant Great Willowherb (*Epilobium hirsutum*). Plant species closer to the ephemeral drain include very locally abundant Meadow-sweet (*Filipendula ulmaria*), Opposite-leaved Golden-saxifrage (*Chrysosplenium oppositifolium*), Silverweed (*Potentilla anserina*) and Hairy Sedge (*Carex hirta*). A plant species list is appended at **Table 8.3**.

- 3.2.5 Modified grassland A is characteristic of an MG7d *Lolium perenne* – *Alopecurus pratensis* sub-community of the NVC (Rodwell, 1992) and is described by the UKHab as g4 modified grassland with the secondary codes 14 scattered rushes, 16 tall forbs and 518 neglected (unmanaged for 3 to 10 years).

Modified Grassland B

- 3.2.6 Refer to **Photos 2 and 22**. Along the northern margin of the site between the fence line at the northern boundary and a belt of Blackthorn (*Prunus spinosa*) scrub is a strip of modified grassland characterised by constant and abundant Yorkshire-fog, Perennial Rye-grass, Rough Meadow-grass and Soft-rush (*Juncus effusus*) with constant and frequent Creeping Buttercup (*Ranunculus repens*). Cock's-foot, Creeping Bent (*Agrostis stolonifera*) and Red Fescue (*Festuca rubra*) are locally abundant with frequent Meadow Foxtail, Crested Dog's-tail (*Cynosurus cristatus*) and Common Bent (*Agrostis capillaris*) and locally frequent Sweet Vernal-grass (*Anthoxanthum odoratum*) and Timothy (*Phleum pratense*). Herb species comprise occasional Common Mouse-ear (*Cerastium fontanum*), Curled Dock (*Rumex crispus*) and Meadow Buttercup (*Ranunculus acris*) with locally frequent Lesser Celandine and rare Cuckooflower (*Cardamine pratensis*). Common Nettle (*Urtica dioica*) and Marsh Woundwort (*Stachys palustris*) is very locally frequent at the margins and saplings of Blackthorn are present closer to the stand of Blackthorn scrub to the south. A plant species list is appended at **Table 8.4**.
- 3.2.7 Modified grassland B is characteristic of a mosaic of the MG7 *Lolium perenne* ley and the MG10 *Holcus lanatus* – *Juncus effusus* communities of the NVC (Rodwell, 1992) and is described by the UKHab as g4 modified grassland with secondary codes 14 scattered rushes and 106 mown.

Modified Grassland C

- 3.2.8 Refer to **Photos 3, 4, 23 and 24**. The largest area of the site (2.0476ha) is occupied by Modified Grassland C which is characterised by constant and abundant Yorkshire-fog, Perennial Rye-grass and Rough Meadow-grass and constant and frequent Creeping Buttercup, with frequent Creeping Bent, Common Bent, Sweet Vernal-grass and locally frequent Red Fescue, Crested Dog's-tail and Cock's-foot. Herbs species comprise occasional Broad-leaved Dock (*Rumex obtusifolius*), Meadow Buttercup, Curled Dock and very locally frequent Creeping Thistle (*Cirsium arvense*) with very locally abundant Common Nettle. Plants of Wild Angelica are locally frequent at the western end. A plant species list is appended at **Table 8.5**.
- 3.2.9 Scattered trees mature and semi-mature trees are present throughout the grassland as annotated on **Figure 2** and described in **Section 3.3**.
- 3.2.10 Modified grassland C is characteristic of a MG7 *Lolium perenne* ley community of the NVC (Rodwell, 1992) and is described by the UKHab as g4 modified grassland with secondary codes 106 mown or 100 grazed.

Blackthorn Scrub

- 3.2.11 Refer to **Photo 5 and 25**. In the northern area of the site is a belt of dense Blackthorn scrub. The shaded understorey supports few plants although occasional Ivy, Arum Lily (*Arum maculatum*) and Male-fern were noted. The Blackthorn scrub has affinities with the W22 *Prunus spinosa* – *Rubus fruticosus* community of the NVC (Rodwell, 1991) and is described by the UKHab as h3b Blackthorn scrub.

Tall Forbs

- 3.2.12 Refer to **Photo 6** and **26**. At the eastern margin of the site is an area of disturbed ground colonised by abundant Great Horsetail, Common Nettle and Great Willowherb with locally abundant Bramble and occasional Lesser Burdock (*Arctium minor*) and Male-fern.
- 3.2.13 The tall forbs have affinities with the OV21 *Urtica dioica* – *Galium aparine* community of the NVC and are described by the UKHab as g grassland with the secondary code 16 tall forbs and 10 scattered scrub.

Woodland

- 3.2.14 Refer to **Photos 8, 27** and **28**, . Due to the closed canopy and understorey, the trees and shrubs along the western margin of the site, parallel to Clitheroe Road, and each side of the Blackthorn scrub are described as woodland.
- 3.2.15 The tree canopy is characterised by frequent mature Sycamore, Norway Maple (*Acer platanoides*) and Horse-chestnut (*Aesculus hippocastanum*) with occasional Beech (*Fagus sylvatica*) and Pine (*Pinus* sp.).
- 3.2.16 The open shrub layer is characterised by frequent Hawthorn and Blackthorn with occasional Elder (*Sambucus nigra*) and Holly. The field / herb layer of the woodland is characterised by abundant Bramble with frequent Ivy (*Hedera helix*), Great Willowherb, Yorkshire-fog, Creeping Soft-grass (*Holcus mollis*), very locally abundant Enchanter's Nightshade (*Circaea lutetiana*), Herb-Robert (*Geranium robertianum*), Dog's Mercury (*Mercurialis perennis*) and Common Nettle with occasional Wood Avens (*Geum urbanum*), Wood Sedge (*Carex sylvatica*),
- 3.2.17 The woodland has no affinities with a specific NVC community and is described by the UKHab as w1g other broadleaved woodland.

Individual Trees

- 3.2.18 Scattered over the modified grassland are small copses of semi-mature trees such as the group of Horse-chestnut, Sycamore and Beech at trees T18 to T22 and mature Sycamore, Beech and Norway Maple at group of trees T23 to T27. Trees T28 (Horse-chestnut) and T55 (Lime) are individual trees in the grassland.

Drain

- 3.2.19 Refer to **Photo 7**. The short (34 metres long) section of ephemeral drain near the north-eastern corner of the site is a narrow (0.30 metres) wide channel which is lined with Great Horsetail and grass species associated with Modified Grasslands A and B. No aquatic or emergent plant species were detected in the channel. Two Alder trees (T46 and T47) are present at the banks.

Invasive Plant Species

- 3.2.20 No Japanese Knotweed was detected at the site. With the exception of shrubs of Rhododendron (*Rhododendron ponticum*) in the understorey at the western margin of the site (refer to **Figure 2**) no other invasive plant species listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were detected at the site.

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 reported record of badger (refer to **Table 3.2**) lies over 500 metres from the site and on the opposite side of the A59 road. 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 and Foraging Bats

- 3.3.2 The woodland habitats around the margins of the site and along the northern edge have good habitat connectivity with other established woodland habitats in the wider area, particularly at the grounds of the property to the east and along the A59.
- 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 woodland in combination with the grasslands are assessed to be of 'moderate' suitability for use by foraging bats.

Ground Level Tree Assessment

- 3.3.4 The table appended at **Section 8.3** provides the results of the GLTA at all trees within the site and on the site boundary. All relevant trees are annotated on **Figure 3**.
- 3.3.5 No confirmed bat roosts were found. Eighteen trees were found to support features that conform with a suitability assessment of 'PRF-I' (i.e. *'PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats'*).
- 3.3.6 None of the trees are considered to conform to a suitability assessment of PRF-M (*'PRF is suitable for multiple bats and may therefore be used by a maternity colony'*). A summary of the results is presented below.

Table 3.3: Summary of Results of GLTA

| Assessment | Number of Trees | Tree References (Refer to Figure 2) |
|------------|-----------------|---|
| None | 43 | Refer to table at Section 8.3 |
| FAR | 0 | - |
| PRF-I | 18 | T10, T12, T14, T15, T16, T18, T21, T22, T25, T28, T34, T35, T38, T39, T43, T44, T55 and T57 |
| PRF-M | 0 | - |

Bird Species

- 3.3.7 Birds detected in the site on 16th January 2025 and 6th August 2025 are listed in **Table 3.4**.

Table 3.4: Bird Species Detected on 16th January 2025 and 6th August 2025

| Scientific Name | Common Name | BOCC Status ¹ | Notes / Habitat |
|----------------------------------|--------------------------|--------------------------|--|
| <i>Buteo buteo</i> | Buzzard | Green | Overhead |
| <i>Carduelis carduelis</i> | Goldfinch | Green | In trees and woodland |
| <i>Certhia familiaris</i> | Treecreeper | Green | In Horse-chestnut tree with lifted bark |
| <i>Chloris chloris</i> | Greenfinch | Red | In boundary trees |
| <i>Columba palumbus</i> | Wood pigeon | Amber | In trees and woodland |
| <i>Corvus corone</i> | Carrion crow | Green | In field of modified grassland |
| <i>Dendrocopos major</i> | Great spotted woodpecker | Green | In tree T4 |
| <i>Erithacus rubecula</i> | Robin | Green | In trees and woodland and Blackthorn scrub |
| <i>Parus caeruleus</i> | Blue tit | Green | In trees and woodland |
| <i>Parus major</i> | Great tit | Green | In trees and woodland |
| <i>Pica pica</i> | Magpie | Green | In field of modified grassland |
| <i>Prunella modularis</i> | Dunnock | Amber | In trees and woodland |
| <i>Regulus regulus</i> | Goldcrest | Green | In trees |
| <i>Troglodytes troglodytes</i> | Wren | Amber | In Blackthorn scrub |
| <i>Turdus merula</i> | Blackbird | Green | In trees and woodland |

¹BOCC: Birds of Conservation Concern (Stanbury, et al., 2021).
Priority Species are presented in **bold**.

- 3.3.8 No ground nesting birds were recorded at the site. It is considered that relatively enclosed conditions at the fields due to the presence of the boundary woodland and trees and the proximity of the major roads creates sub-optimal conditions for the attraction of ground nesting birds such as lapwing and skylark.
- 3.3.9 The woodland, trees and scrub 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.

Reptiles

- 3.3.10 The regularly disturbed agricultural land within the site provides poor quality habitat for use by sheltering, basking and hibernating reptiles. There are no piles of garden waste or other suitable debris for use by sheltering or hibernating reptiles.
- 3.3.11 The site is not adjacent or linked to any areas of favourable habitat for reptile species, and there are no reported records of reptile for the site or the wider area. In consideration of all information available the presence of reptiles within the site is reasonably discounted.

Water Vole

- 3.3.12 No evidence of use of short section of drain at the north-eastern corner of the site by water vole was found. Due to its short length, ephemeral condition, absence of emergent vegetation and absence of connectivity to a wider network of drains / suitable habitat, the drain is assessed to meet the suitability criteria of 'suitable but poor'⁴ in accordance with **Table 2.7**.

⁴

| | |
|--------------------------|---|
| Suitable but poor | Any habitat that falls short of the criteria to qualify as 'good' but does not meet the criteria of 'negligible value' could reasonably be considered to be 'suitable but poor' |
|--------------------------|---|

Other Wildlife

- 3.3.13 An incidental observation of a comma butterfly (*Polygonia c-album*) was made; this is a common and widespread species in the UK.
- 3.3.14 No sightings of brown hare (*Lepus europaeus*) or hedgehog (*Erinaceus europaeus*) were made during the site visits. The habitats are suitable for these Priority Species and this is discussed in **Section 4.4**.
- 3.3.15 Evidence that fox visit the site (tracks and dung) were recorded.

4.0 EVALUATION AND ASSESSMENT

4.1 Introduction and Description of Proposals

- 4.1.1 It is proposed to develop the site to residential housing with an access off Clitheroe Road.
- 4.1.2 The *Proposed Site Layout* and the *Landscape Proposals* (TBA Landscape Architecture, 2025) have been prepared in accordance with ecological guidance and earlier iterations of the assessment of biodiversity net gain (BNG). In accordance with the mitigation strategy 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 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 As outlined in the *Survey Details for Trees on Land at Clitheroe Road, Whalley* (Iain Tavendale, 2025) it is necessary to remove trees at the site. The trees identified for removal are typically scheduled for removal owing to their damaged / decaying condition and their poor quality / longevity and their removal is unavoidable as part of the proposals.
- 4.1.4 **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, and does not support any habitat which would be complementary to the designated sites present 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. 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.

4.3.2 None of the habitats at the site are Priority Habitat.

4.3.3 In terms of each habitat's importance in a geographical context⁵, the mature and semi-mature trees and the woodland habitats are considered to be of 'local' importance as they create habitat connectivity with the wider tree and woodland network and support habitats of value to nesting birds and foraging birds and bats, and contribute to the habitat structural diversity at the site and local area.

4.3.4 The Blackthorn and Bramble scrub habitats are assessed to be of 'site' value for the support of breeding birds and provision of habitat connectivity.

4.3.5 The improved grasslands, tall forbs and drain are not considered to hold any importance on a geographical scale.

4.3.6 The *Proposed Site Layout* has been through a number of iterations to secure the conservation / retention of as many trees and area of woodland as possible. The development is focused on the Modified Grassland C and area of tall forbs with the enhancement of Modified Grasslands A and B secured by the assessment of biodiversity net gain / landscape and long-term management proposals.

4.3.7 As outlined in the *Survey Details for Trees on Land at Clitheroe Road, Whalley* (Iain Tavendale, 2025), some tree removal is unavoidable (mostly owing to the poor health / condition of the trees in accordance with arboricultural criteria). It is considered that the extent of tree removal will not have a significant adverse impact on the ecological function of the woodlands, tree groups and scrub in providing continued habitat connectivity and opportunities for foraging bird and bats (subject to the appropriate use of lighting, see below), nesting birds and other wildlife. The retention of these habitats in conjunction with enhancement by appropriate management and habitat creation (refer to **Section 5.2**) and the buffering of the habitats with complementary habitats such as tree and scrub planting and grassland creation, particularly along the northern margin of the site, will avoid a significant impact of the proposals on the integrity of the woodland, groups of trees and scrub.

4.3.8 The potential impact of the removal of specific individual trees in relation to protected species is discussed in **Section 4.4**.

4.3.9 Rhododendron was the only non-native invasive plant species listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) detected at the site. The risk of spread of this species as part of the proposals is negligible and the shrubs will be removed as part of the enhancement / management of habitats.

4.4 Protected Species and Other Wildlife

Bats

4.4.1 No evidence of a bat roost was detected at any of the trees. With reference to the *Survey Details for Trees on Land at Clitheroe Road, Whalley* (Iain Tavendale, 2025) of the 18 trees assessed to be PRF-I, 9 trees (T10, T16, T21, T22, T25, T34, T38, T39 and T55) are scheduled to be felled and 6 trees (T12, T14, T28, T35, T43 and T44) are recommended for pruning only (trees T15, T18 and T57 will be retained). As outlined in **Section 5.3** works under a Precautionary Working Method Statement are required prior to and during the

⁵ 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.

scheduled felling / pruning of these trees. The installation of bat boxes at retained trees / woodland to compensate for the loss of potential roost features is recommended in **Section 5.4**.

- 4.4.2 Retention and protection of the majority of the woodland, trees and scrub with connectivity to adjacent habitats (and supplementary native tree and scrub planting and wildflower grassland seeding 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**).
- 4.4.3 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 and adjoining land.

Breeding Birds

- 4.4.4 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).
- 4.4.5 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, for example, by the provision of opportunities for conservation target species such as house sparrow, swift and starling at the new buildings.

Badger, Brown Hare, Hedgehog and Other Wildlife

- 4.4.6 The habitats at the site are suitable for use by badger and Priority Species such as brown hare, hedgehog and other wildlife. 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**.

Other Protected Species / Animal Life

- 4.4.7 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 *Proposed Site Layout* and the *Landscape Proposals* (TBA Landscape Architecture, 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 Protection of Existing Vegetation and Recommendations in Relation to Site Layout

5.2.1 The following ecological recommendations should be carried through to the detailed site design:

- a. Maximised retention of the woodland, scrub and trees within the site including the positioning of the proposed site access at an existing gap in the tree canopy;
- b. Maximised green infrastructure and green links through the site with the use of landscape planting and accommodation of new connected hedgerows and the planting of new native trees as stepping stones;
- c. Design and implementation of an appropriate and sensitive lighting strategy to avoid any adverse effects on wildlife such as foraging bats, including the avoidance of lighting where not required (see below);
- d. Accommodation of areas of wildflower grassland including the Emorsgate EH1 and EW1 seed mixes that include a variety of butterfly larval food plants and habitat for other invertebrates and their predators;
- e. Incorporation of features for wildlife such as boxes for roosting bats and nesting birds within the retained woodland / trees and at the developed areas of the site, refer to **Section 5.4**; and
- f. Use of the timber arisings from the trees scheduled to be felled to create dead wood habitat piles and hibernacula within the site;
- g. Arrange and align properties to create contiguous gardens;
- h. Landscape planting within the residential development / gardens to be composed of native species and species such as fruit trees known to be of value for the attraction of wildlife;
- i. Ensure habitat connectivity is maintained as part of the development proposals and to allow access by wildlife (including hedgehog) by installation of gaps at least 0.15 metre tall and 0.15 metre wide at suitable intervals around the base of the proposed fencing. Example accesses are presented at **Insert 1**, as reproduced from *Hedgehogs and Development* (British Hedgehog Preservation Society / PTES, 2019).



Insert 1: Showing wildlife access gap within fencing

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:

Preparation of Programme of Works and Toolbox Talk

- 5.3.2 Owing to the presence of habitats and features that require protection at the site and the wider area, prior to the commencement of works it is essential that an ecologist is involved in the site preparation planning and the proposed programme of works.
- 5.3.3 In addition, in accordance with best practice, it is recommended that an Ecological Toolbox Talk is provided by an ecologist to all site personnel prior to the start of works.

Protection of Habitats to be Retained / Enhanced

- 5.3.4 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

- 5.3.5 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.

Lighting

- 5.3.6 Any lighting to be used during the construction phase must involve the use of appropriate products and screening, where necessary, to ensure no excessive artificial lighting shines over retained habitats as lighting overspill may deter use by wildlife such as foraging bats.

Invasive Plant Species and Biosecurity

- 5.3.7 It is an offence under the *Wildlife and Countryside Act 1981* (as amended) to cause the spread *Rhododendron* in the wild. It is advised that the removal of the *Rhododendron* shrubs is carried out as part of the enhancement / management of habitats to be secured by the Habitat Management and Monitoring Plan (HMMP).
- 5.3.8 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.
- 5.3.9 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

- 5.3.10 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.
- 5.3.11 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.

Protection of Water Quality

- 5.3.1 The water quality at the ephemeral drain will be protected during the construction operations through the implementation of best practice. In the absence of any updated guidance, the following Pollution Prevention Guidelines (PPG) will be adhered to:
- a. PPG1: Basic good environmental practices (Environment Agency, 2013);
 - b. PPG5: Works in, near or over watercourses (Environment Agency, 2014);
 - c. PPG6: Construction and demolition sites (Environment Agency, 2012); and
 - d. PPG7: Operating refuelling sites (Environment Agency, 2011).

Protection of Badger

- 5.3.2 Owing to the presence of badger activity in the local area, prior to the commencement of works it is recommended that a pre-commencement badger survey is carried out within 3 months of the commencement of works.

- 5.3.3 The general 'Best Practice for the Protection of Wildlife' as outlined below is also of relevance for the protection of badger.

Precautionary Working Method Statement in Relation to Bats: Trees

- 5.3.4 The Method Statement outlined below has been prepared in accordance with best practice, practicable guidance, consultation of the approved development proposals and Chapter 6 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)*, (Collins, J. (ed), 2023).

Trees with Potential Roost Features Identified as PRF-I

- 5.3.5 Fifteen trees are assessed to conform to a suitability for use by roosting bats of PRF-I and are scheduled for removal or pruning works. No roost has been detected.
- 5.3.6 The following methods must be applied:
- a. Immediately prior to felling / arboricultural works, an updated inspection of the potential roost features at the trees will be carried out by a licensed bat surveyor; and
 - b. Provided no current or previous evidence of use by roosting bats is found (i.e. the status quo) then trees must be section / soft felled under the supervision of a licensed bat surveyor. The licensed bat surveyor will be present to supervise the following works:
 - Careful section-felling of the tree(s). The sectioning must avoid cutting through or close to any cavities / dead wood, this is likely to involve climbing the tree;
 - Cut sections will be lowered to the ground with the use of ropes;
 - Once on the ground, any cavities, if present, will be re-inspected by the licensed bat surveyor and guidance issued; and
 - Where relevant, allow all felled sections to lie on the ground for 24 hours before snedding (removing side branches).

Other Trees

- 5.3.7 Identified arboricultural works at trees assessed to conform to a suitability for use by roosting bats of 'none' can be carried out in accordance with good arboricultural practice, taking into account the mandatory actions in relation to nesting birds.

Timing

- 5.3.8 The optimum time for tree removal is between September and February inclusive.

Discovery of a Bat

- 5.3.9 If at any time during the works a bat is discovered or suspected all contractors must withdraw from the area and ERAP (Consultant Ecologists) Ltd (01772 750502) or the Bat Conservation Trust must be contacted for further guidance.

Best Practice for the Protection of Wildlife

- 5.3.10 During the site preparation and construction operations, for the protection of wildlife, including hedgehog, it is essential that the following best practice is applied:

- a. 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;
- b. Any pipes must be stored with caps on (to prevent entry by wildlife);
- c. No fires must be lit at the site;
- d. Any chemicals or harmful materials must be safely and correctly stored so that they cannot be accessed by inquisitive wildlife;
- e. 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
- f. Any queries / issues in relation to wildlife on site must be directed to ERAP (Consultant Ecologists) Ltd (01772 750502).

5.4 Provisions for Biodiversity Within the Site and the Built Environment

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 10 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 2**.



Insert 2: Schwegler 1FF, Greenwood Ecohabitat's single cavity and Schwegler 1FD bat boxes

Nesting Birds

Woodland Birds

- 5.4.5 Bird boxes suitable for use by woodland bird species should be installed at the retained woodland trees within the site. An ecologist will advise on the siting of the woodland bird boxes. The boxes should be at least 4 metres from ground level. A selection of the boxes presented at **Insert 3** should be used.



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

House Sparrow

- 5.4.6 House sparrows are associated with suburban areas. Monitoring suggests a severe decline in the UK house sparrow population, estimated as dropping by 71 per cent between 1977 and 2008 with large falls in both rural and urban populations (RSPB, 2023).
- 5.4.7 The installation of house sparrow terrace nest boxes is recommended at the proposed new buildings. The boxes will not be positioned over windows or doorways where droppings may become a nuisance. RSPB advice states that boxes should ideally be sited facing north to east, to avoid exposure to direct sunlight, which may cause overheating of chicks in the nest.

- 5.4.8 Suitable bird boxes are available from the NHBS (www.nhbs.com) or Wild Care (www.wildcare.co.uk). ERAP (Consultant Ecologists) Ltd will advise on the siting of bird boxes. An example of a suitable house sparrow bird box is given below at **Insert 4**.



Insert 4: Schwegler 1SP House Sparrow Nesting Terrace

Swift

- 5.4.9 The swift (*Apus apus*) has been added to *The Birds of Conservation Concern Red list* (Stanbury, et al., 2021) owing to the recorded recent declines and its identified status as a high conservation priority.
- 5.4.10 The construction of the residential properties provides an opportunity for the installation of additional nesting opportunities for swift to assist their conservation. Suitable swift nest boxes are illustrated at **Insert 5**.



Insert 5: Examples of swift nest boxes⁶

Landscape Planting

- 5.4.11 It is recommended that the landscape planting within the residential site is composed from native species and species known to be of value for the attraction of wildlife.
- 5.4.12 It is recommended that trees which support blossom and fruit which will attract insects are incorporated into the landscape planting. Suitable species are presented in **Table 5.1**.

⁶ From left to right No. 17A Schwegler Swift Nest Box (Triple Cavity) as installation (left), Manthorpe Swift Nesting Box (centre) and Istock Eco-habitat for Swift (right), all available from www.NHBS.com and / or Wild Care (www.wildcare.co.uk).

Table 5.1: Suitable Native Species for Tree and Shrub Planting

| Scientific Name | Common Name | Scientific Name | Common Name |
|---------------------------|-------------|-------------------------|-------------|
| <i>Acer campestre</i> | Field Maple | <i>Prunus spinosa</i> | Blackthorn |
| <i>Corylus avellana</i> | Hazel | <i>Rosa arvensis</i> | Field Rose |
| <i>Crataegus monogyna</i> | Hawthorn | <i>Rosa canina</i> | Dog-rose |
| <i>Ilex aquifolium</i> | Holly | <i>Sambucus nigra</i> | Elder |
| <i>Malus sylvestris</i> | Crab Apple | <i>Sorbus aucuparia</i> | Rowan |
| <i>Prunus avium</i> | Wild Cherry | <i>Ulmus glabra</i> | Wych Elm |
| <i>Prunus padus</i> | Bird Cherry | <i>Viburnum opulus</i> | Gelder Rose |

5.4.13 The understorey and ground cover planting design should be prepared to optimise the attraction of invertebrates such as feeding bumblebees and butterflies. Where possible the use of native species should be maximised but where necessary non-native species known to be attractive to invertebrates should be used.

5.4.14 Planting schemes that include flowering species such as *Viburnum*, *Ceanothus*, *Hebe*, *Lavandula*, *Lonicera*, *Potentilla*, *Rosmarinus* and *Vinca* can 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 development at the site in accordance with an appropriate site layout 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 tree loss) and protected species 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.

7.0 REFERENCES

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8.0 APPENDIX 1: TABLES AND FIGURES

8.1 Photographs

Table 8.1: Photographs Taken January 2025



Photo 1: Modified grassland A



Photo 2: Modified grassland B



Photo 3: Modified grassland C



Photo 4: Modified grassland C



Photo 5: Blackthorn scrub



Photo 6: Tall forbs at eastern margin of the site



Photo 7: Ephemeral drain

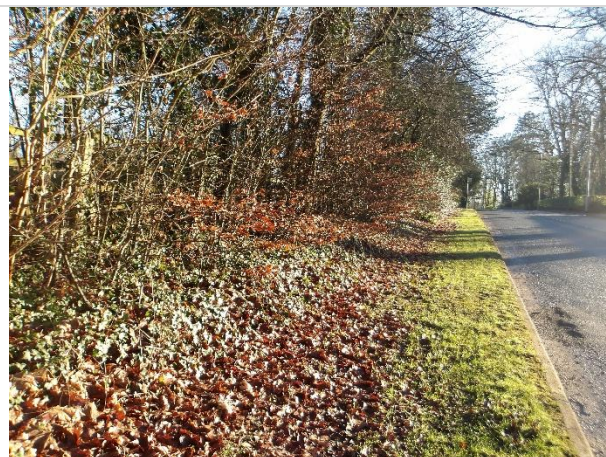


Photo 8: Woodland at western site margin



Photo 9: Tree T10 PRF-I

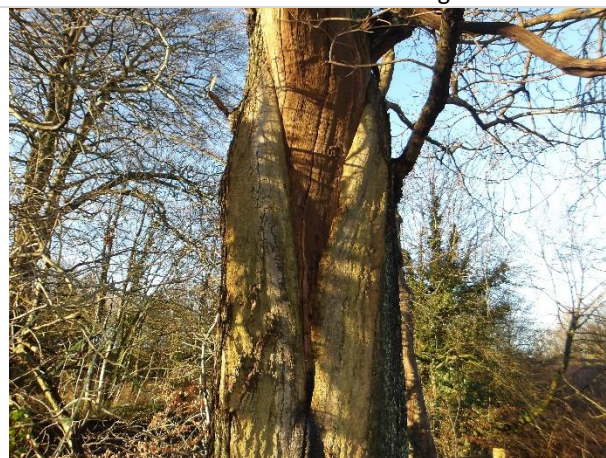


Photo 10: Tree T12 PRF-I



Photo 11: Tree T14 PRF-I with lifted bark



Photo 12: Tree T16 PRF-I



Photo 13: Tree T18 PRF-I



Photo 14: Feature at T21 PRF-I

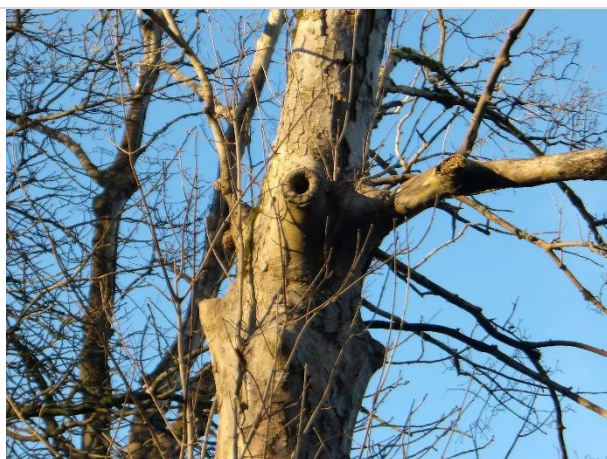


Photo 15: Tree T22 PRF-I



Photo 16: Tree T25 PRF-I woodpecker feeding holes



Photo 17: Tree T34 PRF-I (taken August 2025)



Photo 18: Tree T43 PRF-I



Photo 19: Tree T44 PRF-I



Photo 20: Tree T55 PRF-I (taken August 2025)

Table 8.2: Photographs Taken August 2025



Photo 21: Modified grassland A



Photo 22: Modified grassland B



Photo 23: Modified grassland C



Photo 24: Modified grassland C



Photo 25: Blackthorn scrub



Photo 26: Tall forbs at eastern end of site



Photo 27: Woodland at western site margin

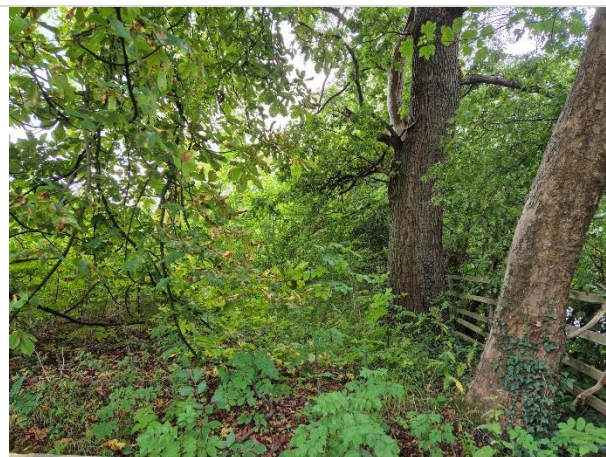


Photo 28: Woodland at western site margin

8.2 Plant Species Lists

Table 8.3: Plant Species List for Modified Grassland A

| Scientific Name | Common Name | DAFOR ¹ | Cover |
|--|----------------------------------|--------------------|-------|
| <i>Agrostis capillaris</i> | Common Bent | LA | 1% |
| <i>Agrostis stolonifera</i> | Creeping Bent | LA | 1% |
| <i>Alopecurus pratensis</i> | Meadow Foxtail | F | 10% |
| <i>Carex hirta</i> | Hairy Sedge | VLA | <1% |
| <i>Cerastium fontanum</i> | Common Mouse-ear | O | <1% |
| <i>Chrysosplenium oppositifolium</i> | Opposite-leaved Golden-saxifrage | VLA | 1% |
| <i>Dactylis glomerata</i> | Cock's-foot | A* | 30% |
| <i>Epilobium hirsutum</i> | Great Willowherb | LA | 2% |
| <i>Equisetum telmateia</i> | Great Horsetail | F | 10% |
| <i>Ficaria verna</i> | Lesser Celandine | LF | 1% |
| <i>Filipendula ulmaria</i> | Meadowsweet | VLA | <1% |
| <i>Galium aparine</i> | Cleavers | VLA | <1% |
| <i>Heracleum sphondylium</i> | Hogweed | O | <1% |
| <i>Holcus lanatus</i> | Yorkshire-fog | F | 20% |
| <i>Juncus effusus</i> | Soft-rush | R | <1% |
| <i>Lolium perenne</i> | Perennial Rye-grass | F | 5% |
| <i>Phleum pratense</i> | Timothy | VLF | <1% |
| <i>Poa trivialis</i> | Rough Meadow-grass | A | 10% |
| <i>Potentilla anserina</i> | Silverweed | VLA | <1% |
| <i>Ranunculus repens</i> | Creeping Buttercup | LF | 1% |
| <i>Rubus fruticosus</i> agg. | Bramble | LA | 2% |
| <i>Rumex crispus</i> | Curled Dock | O/LF | 1% |
| <i>Rumex obtusifolius</i> | Broad-leaved Dock | O | <1% |
| <i>Urtica dioica</i> | Common Nettle | VLA | <1% |
| ¹ Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species | | | |

Table 8.4: Plant Species List for Modified Grassland B

| Scientific Name | Common Name | DAFOR ¹ | Cover |
|--|--------------------------|--------------------|-------|
| <i>Agrostis capillaris</i> | Common Bent | F | 2% |
| <i>Agrostis stolonifera</i> | Creeping Bent | LA | 1% |
| <i>Alopecurus pratensis</i> | Meadow Foxtail | F | 1% |
| <i>Anthoxanthum odoratum</i> | Sweet Vernal-grass | LF | 1% |
| <i>Arrhenatherum elatius</i> | False Oat-grass | VLA | <1% |
| <i>Cardamine pratensis</i> | Cuckooflower | R | <1% |
| <i>Carex hirta</i> | Hairy Sedge | VLA | <1% |
| <i>Cerastium fontanum</i> | Common Mouse-ear | O | <1% |
| <i>Cynosurus cristatus</i> | Crested Dog's-tail | F | 2% |
| <i>Dactylis glomerata</i> | Cock's-foot | LA/F | 5% |
| <i>Deschampsia cespitosa</i> | Tufted Hair-grass | R | 1% |
| <i>Elytrigia repens</i> | Common Couch | VLA | <1% |
| <i>Festuca rubra</i> | Red Fescue | LA | 2% |
| <i>Ficaria verna</i> | Lesser Celandine | LF | 1% |
| <i>Heracleum spondylium</i> | Common Hogweed | O | <1% |
| <i>Holcus lanatus</i> | Yorkshire-fog | A* | 20% |
| <i>Juncus articulatus</i> | Jointed Rush | VLF | <1% |
| <i>Juncus effusus</i> | Soft-rush | A* | 25% |
| <i>Lolium perenne</i> | Perennial Rye-grass | A* | 25% |
| <i>Phleum pratense</i> | Timothy | LF | 1% |
| <i>Plantago lanceolata</i> | Ribwort Plantain | R | <1% |
| <i>Poa trivialis</i> | Rough Meadow-grass | A* | 20% |
| <i>Prunus spinosa</i> | Blackthorn saplings | VLA | <1% |
| <i>Quercus robur</i> | Pedunculate Oak saplings | R | <1% |
| <i>Ranunculus acris</i> | Meadow Buttercup | O | <1% |
| <i>Ranunculus repens</i> | Creeping Buttercup | F* | 10% |
| <i>Rumex acetosa</i> | Common Sorrel | R | <1% |
| <i>Rumex crispus</i> | Curled Dock | O | <1% |
| <i>Stachys palustris</i> | Marsh Woundwort | VLF | <1% |
| <i>Trifolium pratense</i> | Red Clover | VLF | <1% |
| <i>Trifolium repens</i> | White Clover | VLF | <1% |
| <i>Urtica dioica</i> | Common Nettle | VLF | <1% |
| ¹ Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species | | | |

Table 8.5: Plant Species List for Modified Grassland C

| Scientific Name | Common Name | DAFOR ¹ | Cover |
|----------------------------------|---------------------|--------------------|-------|
| <i>Agrostis capillaris</i> | Common Bent | F | 5% |
| <i>Agrostis stolonifera</i> | Creeping Bent | F | 2% |
| <i>Angelica sylvestris</i> | Wild Angelica | VLF | <1% |
| <i>Anthoxanthum odoratum</i> | Sweet Vernal-grass | F | 2% |
| <i>Arrhenatherum elatius</i> | False Oat-grass | LA | 5% |
| <i>Cardamine pratensis</i> | Cuckooflower | R | <1% |
| <i>Carex pendula</i> | Pendulous Sedge | VLA | <1% |
| <i>Cirsium arvense</i> | Creeping Thistle | VLF | <1% |
| <i>Cynosurus cristatus</i> | Crested Dog's-tail | F | 5% |
| <i>Dactylis glomerata</i> | Cock's-foot | LF | 2% |
| <i>Epilobium hirsutum</i> | Great Willowherb | VLA | <1% |
| <i>Equisetum telmateia</i> | Great Horsetail | VLA | <1% |
| <i>Festuca rubra</i> | Red Fescue | LF | 1% |
| <i>Ficaria verna</i> | Lesser Celandine | LF | <1% |
| <i>Filipendula ulmaria</i> | Meadow-sweet | VLF | <1% |
| <i>Hedera helix</i> | Ivy | VLA | <1% |
| <i>Heracleum sphondylium</i> | Hogweed | O | <1% |
| <i>Holcus lanatus</i> | Yorkshire-fog | A* | 15% |
| <i>Juncus articulatus</i> | Jointed Rush | R | <1% |
| <i>Juncus effusus</i> | Soft-rush | F | 5% |
| <i>Lathyrus pratensis</i> | Meadow Vetchling | O | <1% |
| <i>Lolium perenne</i> | Perennial Rye-grass | A* | 40% |
| <i>Narcissus pseudonarcissus</i> | Daffodil | VLF | <1% |
| <i>Plantago lanceolata</i> | Ribwort Plantain | O | <1% |
| <i>Poa trivialis</i> | Rough Meadow-grass | A* | 20% |
| <i>Ranunculus acris</i> | Meadow Buttercup | O | <1% |
| <i>Ranunculus repens</i> | Creeping Buttercup | F* | 5% |
| <i>Rubus fruticosus</i> agg. | Bramble | VLA | 1% |
| <i>Rumex acetosa</i> | Common Sorrel | O | <1% |
| <i>Rumex crispus</i> | Curled Dock | O | <1% |
| <i>Rumex obtusifolius</i> | Broad-leaved Dock | O | <1% |
| <i>Taraxacum officinale</i> agg. | Dandelion | R | <1% |
| <i>Trifolium pratense</i> | Red Clover | O | <1% |
| <i>Urtica dioica</i> | Common Nettle | VLA | <1% |

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

8.3 Results of Ground Level Tree Assessment

Table 8.6: Results of Licensed Bat Survey and Assessment of Trees

| Tree Number | Species | Actions Relevant to Site Proposals | Presence of Potential Roost Features (PRF) and Results of Inspections in January and August 2025 | Photo Reference | Assessment (based on Table 4.1 of the <i>Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)</i> (Collins, J. (ed), 2023)) |
|-------------|----------------|------------------------------------|--|-----------------|--|
| T1 | Sycamore | Off-site | Minor dead wood. None | | None |
| T2 | Norway Maple | Retain | Minor dead wood. None | | None |
| T3 | Horse-chestnut | Retain | Minor dead wood. None | | None |
| T4 | Horse-chestnut | Retain | Minor dead wood. None | | None |
| T5 | Horse-chestnut | Retain | Minor dead wood. None | | None |
| T6 | Horse-chestnut | Fell | Minor areas of lifted bark. | | None but PWMS to be applied during felling |
| T7 | Pine | Retain | Minor dead wood. None | | None |
| T8 | Sycamore | Retain | Minor dead wood. None | | None |
| T9 | Horse-chestnut | Retain | Minor dead wood. None | | None |
| T10 | Horse-chestnut | Fell | Deadwood present. Shallow cavities inspected at height. All confirmed to be water filled and / or too shallow to be suitable for use by roosting bats | Photo 9 | PRF-I |
| T11 | Beech | Retain | None | | None |
| T12 | Oak | Pruning | Wound extending down main stem from lateral branch at 1.5 metres height. Inspection confirmed does not lead to a deeper cavity suitable for more than 1 bat. | Photo 10 | PRF-I |
| T13 | Sycamore | Pruning | None | | None |
| T14 | Horse-chestnut | Pruning | Lifted bark at lateral branch at 6 metres height on north-west side | Photo 11 | PRF-I |
| T15 | Horse-chestnut | Retain | Lifted bark | | PRF-I |
| T16 | Horse-chestnut | Fell | Lightning strike(?). Wound down main stem. PRF in main stem at top of tree but exposed. | Photo 12 | PRF-I |
| T17 | Horse-chestnut | Pruning | Minor dead wood. None | | None |
| T18 | Horse-chestnut | Retain | Large knothole on south-western side of main stem at a height of 4 metres. Suitable for use by owl. No cavity extending upwards into the tree. Inspected - no bats or bat droppings. | Photo 13 | PFF-I |
| T19 | Sycamore | Fell | None | | None |
| T20 | Beech | Fell | None | | None |

| Tree Number | Species | Actions Relevant to Site Proposals | Presence of Potential Roost Features (PRF) and Results of Inspections in January and August 2025 | Photo Reference | Assessment (based on Table 4.1 of the <i>Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)</i> (Collins, J. (ed), 2023)) |
|-------------|-----------------|------------------------------------|--|-----------------|--|
| T21 | Sycamore | Fell | Wound on north-western side of the main stem at 1 metres height. Inspected - no bats or bat droppings. | Photo 14 | PRF-I |
| T22 | Sycamore | Fell | Knothole present on south side of main stem at a height of 7 metres. Obscured by lower growth. | Photo 15 | PRF-I |
| T23 | Sycamore | Pruning | None | | None |
| T24 | Beech | Retain | None | | None |
| T25 | Dead | Retain as a feature | Woodpecker feeding signs and decay / dead wood | Photo 16 | PRF-I |
| T26 | Sycamore | Fell | None | | None |
| T27 | Norway Maple | Fell | None | | None |
| T28 | Horse-chestnut | Prune | Lifted bark present | | PRF-I |
| T29 | Alder | Prune | None | | None |
| T30 | Horse-chestnut | Retain | Minor dead wood. None | | None |
| T31 | Lombardy Poplar | Fell | Minor dead wood. None | | None |
| T32 | Oak | Retain | Minor dead wood. None | | None |
| T33 | Oak | Retain | Minor dead wood. None | | None |
| T34 | Ash | Fell | Dead | Photo 17 | PRF-I |
| T35 | Horse-chestnut | Prune | Dead wood present and lifted bark. | | PRF-I |
| T36 | Alder | Prune | Sealed wound. | | None |
| T37 | Norway Maple | Fell | None | | None |
| T38 | Horse-chestnut | Fell | Decay and split up the main stem and dead wood in the canopy. Snagged branches. Minor PRF; no deep cavity. | | PRF-I |
| T39 | Horse-chestnut | Fell | Lifted bark. | | PRF-I |
| T40 | Beech | Retain | None | | None |
| T41 | Sycamore | Retain | Minor dead wood | | None |
| T42 | Lime | Prune | None | | None |
| T43 | Sycamore | Prune | Knotholes on the main stem and the western side. 1 at 2 metres height with a shallow downwards cavity. 1 at 3.5 metres height which is blind on inspection | Photo 18 | PRF-I |
| T44 | Horse-chestnut | Prune | Minor dead wood and butt-rot at base with a hollow vertical cavity. Inspection confirmed filled with slugs. No bats or droppings present. | Photo 19 | PRF-I |
| T45 | Sycamore | Prune | None | | None |
| T46 | Alder | Retain | None | | None |
| T47 | Alder | Retain | None | | None |

| Tree Number | Species | Actions Relevant to Site Proposals | Presence of Potential Roost Features (PRF) and Results of Inspections in January and August 2025 | Photo Reference | Assessment (based on Table 4.1 of the <i>Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)</i> (Collins, J. (ed), 2023)) |
|-------------|----------------|------------------------------------|--|-----------------|--|
| T48 | Oak | Retain | None | | None |
| T49 | Sycamore | Retain | None | | None |
| T50 | Sycamore | Retain | None | | None |
| T51 | Sycamore | Retain | None | | None |
| T52 | Silver Birch | Retain | None | | None |
| T53 | Ash | Retain | None | | None |
| T54 | Sycamore | Retain | None | | None |
| T55 | Lime | Fell | Woodpecker feeding holes and deadwood present | Photo 20 | PRF-I |
| T56 | Horse Chestnut | Fell | None | | None |
| T57 | Horse Chestnut | Retain | Deadwood and lifted bark | | PRF-I |
| T58 | Ash | Retain | None | | None |
| T60 | Cherry | Retain | None | | None |
| T61 | Sycamore | Retain | None | | None |
| T62 | Sycamore | Retain | None | | None |

8.4 Figures

Figure 1: Aerial Image of the Site and its Surroundings Showing Ponds within 500 metres

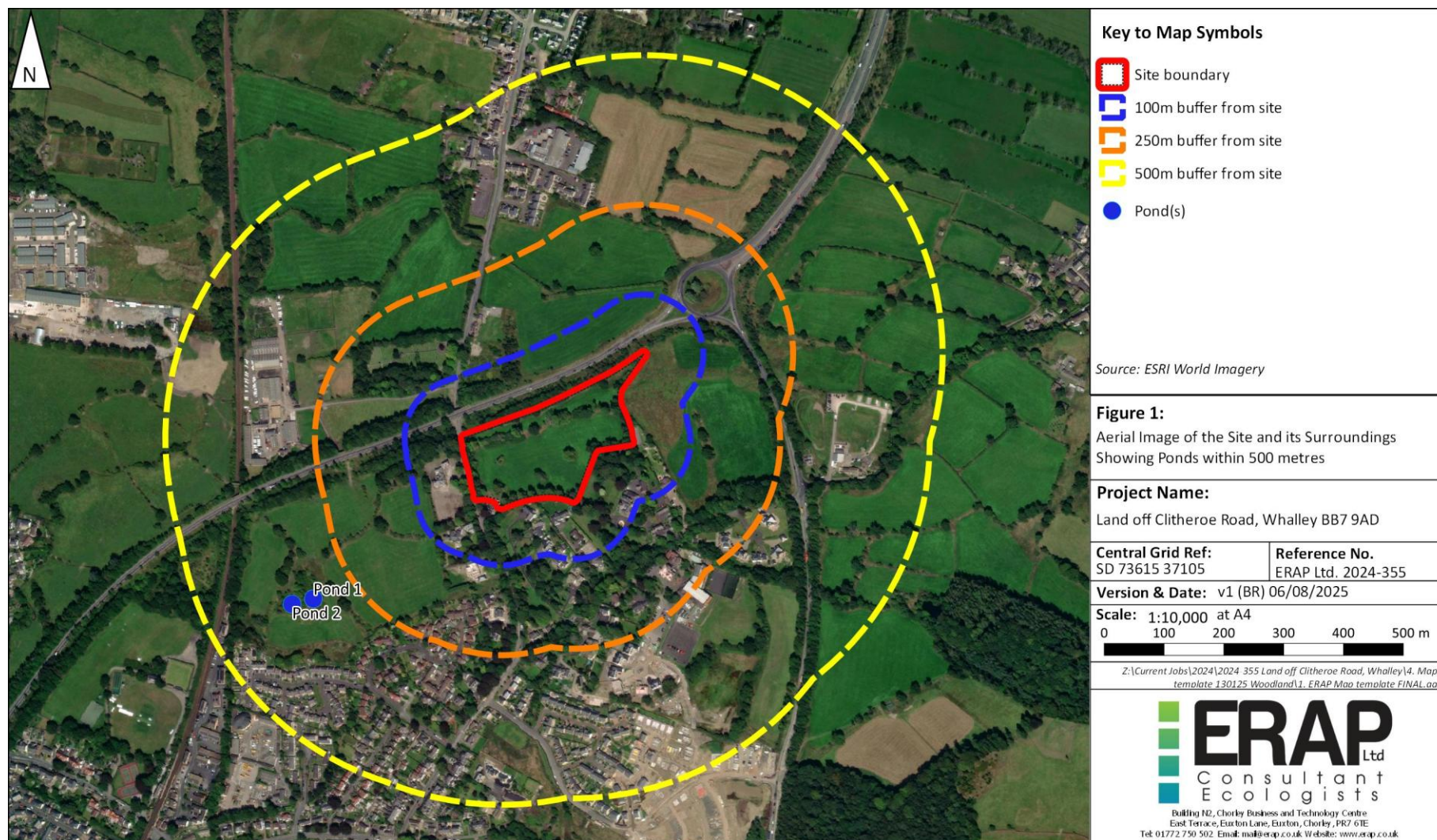


Figure 2: Phase 1 Habitat Survey

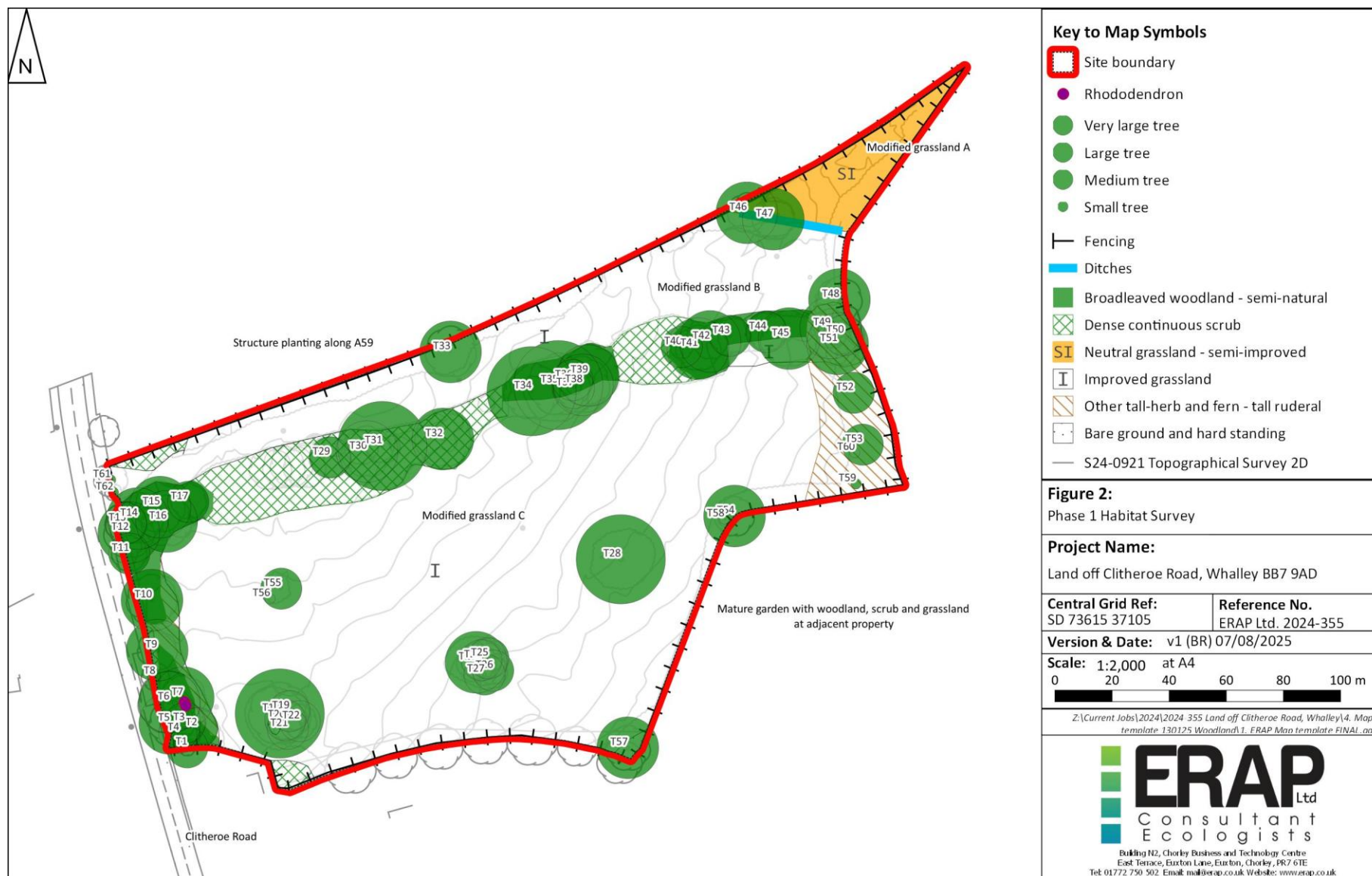


Figure 3: Phase 1 Habitat Survey Showing PRF-I Trees

