



Leigh Ecology Ltd

Protected Species and Habitat Surveys

**Outbuilding at Willington Lodge,
Wrexham,
SY13 3BZ.**

On behalf of CB Homes.

**Preliminary Ecological Appraisal and Bat Scoping
Report**

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Important Information to Readers

This report has been prepared for CB Homes, in accordance with the terms and conditions of appointment for a Preliminary Ecological Appraisal and Bat Scoping survey. Leigh Ecology Ltd cannot accept any responsibility for the use of or reliance on the content of this report by any third party.

The advice contained in this report is based on the information available and/or collected during the period of study. We cannot completely eliminate the possibility of important ecological features being found through further investigation and/or by survey at different times of the year or in different years.

Surveys and assessments are undertaken on the understanding that nothing in our reports will be omitted, amended or misrepresented by the client or any other interested party.

Please be aware the information contained within this report is valid for a period not exceeding two years. After this time, data contained within will require updating.

Contents

1. Executive summary	4
2. Introduction	5
2.1 Legislation & Policy.....	8
3. Methodology	10
4. Results.....	13
5. Constraints and Recommendations	23
6. References	25
7. Appendices	
Appendix 1 – Phase 1 Habitat map and legend	
Appendix 2 – Target Note Table	

1. EXECUTIVE SUMMARY

Leigh Ecology Ltd. was commissioned to undertake a preliminary ecological assessment and bat scoping survey on an outbuilding at Willington Lodge, Wrexham. The survey was undertaken and completed on 19th April 2023.

The proposal building is an active stable building, featuring a high roof and an open configuration. The building features several brick pillars found in the corners, with wooden purlins and rafters supporting the corrugated external walls and roof. Directly adjacent to the building is an amenity grassland field, actively used for camping and caravanning. Willington Lodge, a large-scale dwelling, is in situ adjacent to the proposal building. Proposal plans include a renovation of the current building, being contained within the current footprint.

To facilitate the renovation of the subject building, a survey for protected species was required, namely bats species (*Chiroptera*), but including nesting birds, amphibians, reptiles, and mammals with a survey of the immediate surrounding area.

The results of the bat scoping survey of the subject building indicate that it offers **low bat roost potential**. The internal of the building is open in configuration, with large entry points on all sides. The internal roof space is unsuitable for bat roosting, but the brick pillars found within the building offer potential bat roosting space.

The immediate surrounding area was assessed for previous usage and potential for different mammal, amphibian and reptile species. 3 ponds occur within the extended survey area of the proposal site and were each assessed during the survey.

Any vegetation clearance and demolition works should be undertaken outside the bird-nesting season, and under supervision between April-August inclusive, to minimise any impact on nesting birds.

2. INTRODUCTION

Background

Leigh Ecology Ltd was commissioned by CB Homes to undertake Bat scoping and Ecological Appraisal of a stable building and immediate surrounding habitat to facilitate renovation work at a site known as Willington Lodge, Wrexham (approx. National Grid Reference (NGR) SJ 451413; refer to line boundaries shown on *Figure 2.1* below).



Figure 2.1; Site Location and Extent (The red line boundary highlights the subject building; the yellow line boundary highlights the extent of the surveyed area).

This report will therefore provide baseline information as derived from the diurnal appraisal process outlined and recommend any necessary additional surveys, or work, where applicable, to provide a conclusive ecological impact assessment.

2.1 Legislation & Policy

The legislature considered for the purposes of this report includes the following:

- Planning Policy Wales (8th Ed. January 2016)
- Technical Advice Note 5 (TAN5) Nature Conservation and Planning 2009
- Local planning policies (Wrexham City Council).
- The Conservation of Habitats and Species Regulations 2017.
- The Wildlife and Countryside Act 1981 (as amended).
- EC Council Directive on the Conservation of Wild Birds 79/409/EEC.
- National Parks and Access to the Countryside Act 1949.
- The Protection of Badgers Act 1992.
- The Countryside and Rights of Way Act 2000.
- The Hedgerow Regulations 1997.
- The Natural Environment and Rural Communities Act 2006; and
- Local Biodiversity Action Plan for Wrexham.

Sites of biodiversity conservation value, habitats and species in UK and Local Biodiversity Action Plans (BAPS) and protected species are material considerations in the planning process Habitat Regulations 2017 and the Environment (Wales) Act 2016.

These acts entail relevance to both protected and invasive species. The degree of protection offered to taxa provided within existing UK and EU legislature often varies depending on species/group, for example, some species may purely be protected during one of its life stages (e.g., common species of breeding bird whilst nesting/with eggs/young); some species may receive full protection within the EU (e.g., otter), whereas others may be protected solely on a national basis (e.g. grass snake).

Policy

a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;

b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have

an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;

c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons⁶³ and a suitable compensation strategy exists; and,

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while 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.

The study is documented in this report and includes the following:

- Preliminary ecological baseline for the site;
- Protected mammals' assessment of the site;
- A desk study including Magic map data search;
- Potential ecological constraints to the development of the site; and
- Further ecological work necessary for a planning submission.

All Work was undertaken in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Practice.

3. METHODOLOGY

A daytime preliminary ecological appraisal was conducted on the 19th of April 2023 in dry conditions by Roy Leigh ACIEEM Natural Resources Wales Licensed Bat surveyor No. SO91926/1 and Level 2 NE Bat Surveyor Christian Leigh.

Floristic assessment

The survey followed the UK Habitat Classification Version 1.1 (Butcher et.al., 2020) being introduced as part of the roll out of Biodiversity Net-gain with reference to the Joint Nature Conservation Committee (JNCC) Phase 1 Habitat Methodology standards (JNCC, 2010) and reference to the Chartered Institute of Ecology and Environmental Management (CIEEM) Technical Guidance Series “Guidelines for Preliminary Ecological Appraisal, 2nd Edition” (CIEEM, 2017).

During the survey walkover, botanical assemblages were assessed, and the land was inspected for the presence of red-listed (Stroh et al, 2014; Hodgetts, 2011), s.41 and LBAP species alongside specially protected species as listed under Schedule 8 of the Wildlife and Countryside Act (WCA) (1981) (as amended) and / or Schedule 5 The Conservation of Habitats and Species (amendment) (EU exit) Regulations (2019). Species nomenclature follows Stace, C. (2019) – definitive English names for vascular plants, Smith, A. (2004) for mosses, and Dobson, F. (2018) for lichens.

In combination with assessing the area in relation to flora and habitats of conservation importance, the land was also assessed in relation to the presence of invasive non-native species (INNS) as listed under Schedule 9 (Part II) of the Wildlife and Countryside Act (1981) (as amended).

Faunal assessment

The identification and/or evidence of fauna encountered has been documented whilst in tandem the area was assessed for the potential to support priority species. The ‘walkover’ also aimed to identify any ephemeral pools or unmapped waterbodies.

Bats

The application site was assessed for bats, buildings (where present) were inspected for potential places that may be of value to bats and to determine evidence of use.

This typically involves a search for potential roost features (PRF) both internally (investigation of loft spaces/upper floors/internal elevations) as well as externally, comprising an investigation of features

(roof material, building components) using a high- powered torch. Field signs of bats typically comprise bat droppings, incidental animal presence, dead specimens and/or prey items. The surrounding habitat was also considered in terms of general suitability.

Trees (where present) were inspected for places that may be of value to bats and to determine if evidence of use was present; this typically involves a search for potential roost features along with an investigation of those features using a high-powered torch or close focus binoculars. Potential roost features can include woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks or splits in stems and branches, partially decayed lifted 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 with stem diameters in excess of 50mm or bat/bird boxes. All mature trees were assessed for their potential to host roosting bats.

Criteria for preliminary bat roost assessment are based upon the determinants given in the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016).

Landscape Assessment

Bats use regular commuting and foraging routes; these are usually linear features such as hedgerows and watercourse corridors. The loss and severance of such a feature may have an indirect impact on the bats. Therefore, it is important that if the development impacts on these features, they are assessed.

Breeding Birds

Buildings, trees, hedges, and scrub (where present) were checked for evidence of nesting birds and suitability for relevant species. Bird species observed and heard were recorded on site, and a search was made for nest material, or areas suitable for nesting.

Additional to the site's capacity to support generally common species for breeding, the area was also subject to an assessment for the site's capacity to support species especially protected under Schedule 1 of the Wildlife & Countryside Act (1981) (as amended), for example Barn Owl (*Tyto alba*) and other priority species.

Other terrestrial mammals

The walkover included a search for field signs of Badger (*Meles meles*) which includes signs of activity such as digging, setts, 'runs' leading to and from a sett and the existence of latrines or 'snuffle' holes where badgers have foraged in the ground. Any signs indicative of use of the site by European Hedgehogs (*Erinaceus europaeus*), or habitats of value to them, were also recorded.

Amphibians and Reptiles

During desktop assessment, a 250m search was undertaken from a site-central grid reference in relation to the presence of ponds, ditches or other water bodies that may support Great Crested Newts (GCN). The information gathered was then used to aid in establishing if more detailed surveys are required.

The site and its surroundings were assessed for suitability for use by reptiles, with particular attention paid to features that could be used as basking areas (e.g., south-facing slopes), hibernation sites (e.g., banks, walls, piles of hardcore) and opportunities for foraging (e.g., rough grassland and scrub).

The results, conclusions and recommendations of this report are based on a number of factors i.e., Skills and experience of the surveyor, knowledge of flora and fauna relevant to the site location and geographical range.

4. RESULTS

Site survey

Habitats within the survey area

The results of the Phase 1 Habitat survey of the immediate surrounding area and details are shown in Appendix 1, with accompanying photographs shown within the text (below). Habitat descriptions are provided, and plant species are referred to using their English names.

The survey site covers the full extent of the land shown in *Fig 2.1*. The proposed development will see the renovation of the subject building on site.

Ecologically, the site is set within a rural area comprising large arable grassland open fields with bordering hedgerows and mature tree lines. The large dwelling, Willington Lodge, is adjacent to the subject building and an amenity grassland field and associated infrastructure for camping and caravanning are in situ also.

The subject building is open in configuration, with wide doorways and openings suitable for foraging bats. Some features within the building were noted as *ideal* for bat roosting.

Habitats

An adjacent arable field, which is currently utilised by the horses housed within the proposal building is maintained accordingly, as is the amenity grassland field which features camping and caravanning infrastructure. Several mature trees were identified across the wider site, with oak and ash trees along the northern and southern borders of the wider surveyed area. These trees are thought to offer some bat potential *but will not be affected during the development*.

Site Boundaries

The wider surveyed site is bounded by mature species rich hedgerows and wooden fencing.

Surrounding habitats

The wider environment consists of large open arable grassland fields with bordering hedgerows and woodland clusters. These features are categorised as offering ideal bat foraging habitat.

A map showing the specific habitat areas is presented in **Appendix 1**.



Photograph 1; A view of the subject building. The large openings across the building can clearly be seen.



Photograph 2; A view of the northern face of the building. The gable comprises wooden paneling and wooden soffit boarding.



Photograph 3; A view of the brick pillars found within the infrastructure. The large gap (circled) offers an ideal entry point to a wall cavity.



Photograph 4; A view of the corrugated extension section of the building.



Photograph 5; An internal view of the subject building; wooden purlins and rafters support the corrugated tin external roof.



Photograph 6; A view of one of several brick pillar sections within the building. A number of openings were found across all of the brick sections, creating ideal entry points to cavities within these internal walls.



Photograph 7; Corrugated tin external upper walls and roof feature on the building.



Photograph 8; A view of the hard standing ground that the building sits on. This image is taken from the adjacent camping amenity grassland area.



Photograph 9; A view of the amenity grassland section. Mature trees feature along the extended border.



Photograph 10; Further amenity grassland section to the north of the proposal building. No instances of mammal tracks or other signs of mammal usage were found across the site.



Photograph 11; A view of Willington Lodge, an adjacent large dwelling. The building was briefly assessed and is in good condition throughout, with no instances of entry points to support bat foraging noted.



Photograph 12; A view of one of several ponds that occur directly adjacent to the site. The ponds on-site were assessed for reptile suitability (specifically GCN).



Photograph 13; A second stagnant water body found along the southern boundary of the wider site.



Photograph 14; A view of a naturally occurring pond found in an adjacent horse-grazed field to the west of the subject building.



Photograph 15; A view of an ornamental pond found north-west of the proposal building.

Protected and notable species

Invertebrates

No notable invertebrate species were recorded; and given the structure of the habitats in the area, there are very few areas of possible flowering vegetation.

Amphibians

Great crested newts are protected by Schedule 2 of the Convention of Habitats and Species Regulations (2010) and Schedule 5 of the Wildlife and Countryside Act (1981, as amended), which provide protection to both the individuals and the areas they use for rest, shelter or breeding. Great crested newts are also a UK BAP and LBAP priority species.

3 ponds occur within 100m of the proposal building and were all assessed (*See below*)



Pond 1: Pond 1 is a large pond sectioned into 2; it is a typical arable grassland pond. The water quality was poor, with very few instances of invertebrates. A fair amount of shade is created by the tree line that separates the pond. Adjacent hedgerows and grassland offer some terrestrial habitat.

Pond 2: Pond 2 lies within an active horse grazing space. The pond is likely polluted due to this, and the water quality reflects this. No suitable features were found within the pond for newt usage, and few instances of nearby terrestrial habitat were identified.

Pond 3: A typical small ornamental pond features an unnatural brick material base. No shade is atop the pond, with suitable submerged plants within.

Considering the planned renovation work will be undertaken within the current footprint, it is thought that effects on these ponds will be negligible.

Bats

Surrounding habitat and Tree Inspection

The proposal building sits in a particularly connected environment to nearby ideal bat foraging and roosting features. Mature oak and ash trees found across the wider site may offer ideal tree roosting, with laurel and hawthorn hedgerows offering ideal bat foraging routes. These features will not be lost or effected during development work, but potentially link to the subject building.

External Inspection

The subject building comprises an open configuration, creating large openings for foraging bats. The composition of the building is mostly unsuitable despite the brick pillars found in in the corners of the building which offer ideal entry points to inner cavities. Due to this, the building is thought to offer low bat roost potential.

Breeding Birds

The building holds no signs of previous or active bird usage in the form of nests or excrement.

Badger

No signs of badger usage were noted across the wider area, and no active setts were found nearby. It is thought that if any badgers are to visit the site, they will not be affected by the proposed development works.

Other mammals

No signs of other mammal usage were found either on site or within the wider area.

5. CONSTRAINTS AND RECOMMENDATIONS

The proposed development (within the red line site boundary as shown in *Figure 2.1*) will consist of the renovation of the existing stable building on site.

Positioning, construction, and post construction impacts are therefore likely upon both the habitats and species within and immediately adjacent to the site. Ecological constraints and recommendations with regard to any development of the site are discussed below.

Non-native invasive species

Plants

No invasive species were located within the red line boundary or the surrounding surveyed area.

Protected species

Bats

Due to the ideal details and characteristics of sections of the subject building, it is thought to offer low bat roost potential. It cannot be deemed negligible as the brick pillars within the building offer ideal entry points to the inner cavities.

Therefore, it is suggested that a single bat activity survey be undertaken on the building to determine the presence and possible usage of the building for roosting or foraging bats. This survey is to be undertaken within the active bat season (May-September).

With development proposals, where lighting is necessary in areas of tree/shrub planting, this will be low wattage, directional, low level and/or shaded to minimise light spill (<1Lux) onto potential flight lines and foraging habitat to ensure that the overall impact caused by lighting the site is negligible.

The lighting scheme will be designed with regard to guidance such as the Bat Conservation Trust Statement on the impact and design of artificial light on bats, and the Institution of Lighting Professionals Guidance Notes, to minimise disturbance to bats and other wildlife due to artificial lighting.

Birds

No signs of active or ancient bird usage were noted within the building, but due to the open configuration of the building, it cannot be ruled out. Several common species were noted across the wider area such as blackbird, dunnock and robin. The building is considered to be fairly insignificant

for bird species.

Some compensation in order to mitigate the loss of habitat may be required; this should be located to ensure linkage to foraging habitat, such as planting of additional native hedgerows, scrub and trees within the proposed site and along boundaries.

Badgers

No badger tracks or usage were noted within the extended surveyed area. The development work will not affect the local badger population.

6. REFERENCES

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Appendices
Appendix 1 – Phase 1



Key-

Amenity Grassland-



Pasture-



Building-



Hard Standing-



Species poor hedgerow-



Tree-



Pond-

