



Chapel Farm, Newbridge Road Cefn Mawr, Wrexham

Bat Report

5th August 2022

Authored by Richard Roe BSc MSc MCIEEM CEnv

CONTACT DETAILS

KINGDOM ECOLOGY LTD
7 Speke Road
Woolton
Liverpool
L25 8QA

Email: enquiries@kingdomecology.com

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1 Introduction

1.1 Background

Kingdom Ecology have carried out a Bat Assessment of a disused farmhouse located at Chapel Farm, Newbridge Road, Cefn Mawr, Wrexham LL14 3JA (National Grid Reference SJ 2851 4149). The house is no longer habitable and is in a poor structural condition. Therefore, proposals are to demolish and rebuild the house.

Field surveys comprised of an initial bat scoping assessment followed by two dusk bat activity surveys. These were undertaken on the 7th October 2021, 25th May 2022 and the 13th June 2022 respectively. Surveys were led by Richard Roe (BSc, MSc, MIEEM, CEnv). Richard has extensive experience of undertaking habitat and protected species surveys as a professional ecological consultant with over twenty years' experience. Richard is a licensed bat worker.

1.2 Purpose of Report

This report provides and outlines the findings of field surveys undertaken at the site. The field surveys examined habitats present with regards to their suitability to support roosting bats or any other protected species. The survey comprised of a bat scoping assessment of the affected building with follow-on bat emergence surveys.

Following a description of the survey findings and an evaluation of habitats at the site, the report goes on to make recommendations for further works, mitigation and ecological enhancement measures where relevant.

1.3 Protected Species Legislation

1.3.1 Bats

All British bat species are fully protected under the Wildlife and Countryside Act 1981 (as amended) and through their inclusion in Schedule II of the Habitats Regulations 2010 which transpose Annex II of the Council Directive 92/43/EEC 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora ("EC Habitats Directive") which defines European protected species of animals.

British bats species are afforded further protection by the Countryside and Rights of Way Act 2000; and the Natural Environment and Rural Communities Act 2006.

Taken together, this legislation makes it an offence to:

- Intentionally or deliberately kill, injure or capture bats.
- Deliberately disturb bats, whether at roost or not.
- Damage, destroy or obstruct access to bat roosts.
- Possess or transport bats, unless acquired legally.
- Sell, barter or exchange bats.

A bat roost is interpreted as “any structure or place, which any wild bat uses for shelter or protection.” (Bat Conservation Trust 2016¹). A bat roost is protected whether or not bats are present at the time.

All species of British bat are considered a European Protected Species (EPS). The Conservation of Habitat and Species Regulations (2010) provide derogation against certain offences which could potentially affect an EPS through the EPS Licensing system.

1.3.2 Birds

All wild birds in England and Wales are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally kill, injure or take any wild bird, or take, damage or destroy the nest (whilst being built or in use) or its eggs.

¹ Bat Conservation Trust (2016) ‘Bat Surveys: Good Practice Guidelines 3rd Edition’

2 Field Survey Methods

2.1 Survey Aims and Objectives

The survey aim was to determine the site's ecological importance by assessing the conservation value of habitats present and their suitability to support any protected or notable species. The purpose of this was to highlight any ecological constraints associated with future development proposals.

Field survey comprised of an ecological walkover survey, this included a bat scoping assessment of the building present, and an assessment of habitats at the site in terms of their suitability to support protected species. Follow-on bat emergence surveys were also completed at the site.

Species that are considered unlikely to be significantly affected by the proposed development, even if known to be present in the general vicinity, were 'scoped out' of the assessment.

2.2 Survey Methods

2.2.1 Daytime Bat Inspection

The building was assessed as to its suitability to support roosting bats following standard methodologies prescribed in English Nature's *Bat Mitigation Guidelines* (Mitchell-Jones 2004)² and the Bat Conservation Trust's *Bat Surveys: Good Practice Guidelines* 3rd Edition (BCT 2016)³.

Survey, comprising of an inspection of the interior and exterior of the building, was undertaken during daylight conditions using binoculars and a high-powered torch. The survey was undertaken during daylight hours on the 7th October 2021.

In addition to searching for evidence of an actual bat roost the survey also aimed to assess the suitability of each building to support bats and consequently the likelihood of a bat roost being present but with no obvious field signs.

² Mitchell-Jones, A.J. 2004. *Bat Mitigation Guidelines*. English Nature, Peterborough.

³ Bat Conservation Trust (2016) '*Bat Surveys: Good Practice Guidelines* 3rd Edition'

Survey assessed the building's roost suitability by examining structural features and the surrounding habitat. Structural features that will influence the suitability of a building to support roosting bats include the presence of a roof void; access points into a building including gaps beneath barge boards, gaps under lead flashing, gaps within masonry, loose tiles etc, complexity of any roof void, daytime light levels in roof void etc.

Important habitat features surrounding the structures which could influence roost potential include: whether the structure is in a semi-rural or parkland location, proximity to a significant linear feature (e.g. watercourse, mature hedgerow, wooded lane) or an area of woodland etc.

Taking account of these architectural and habitat features, the building was assigned a level of roost suitability based upon professional judgement.

2.2.2 Bat Activity Surveys

A further two bat activity surveys of the building were undertaken comprising of dusk emergence surveys on the 25th May and on the 13th July 2022.

Two surveyors were used for each survey to allow full coverage of the identified potential bat roosting features (surveyor locations shown on Figure 2 in the Appendix). The surveys were undertaken during suitable weather conditions.

Surveyors were equipped with heterodyne, frequency division and time expansion bat detectors (Echometer Touch 2, Elekon Bat Scanner and Anabat Walkabout bat detectors).

The surveyors also used infrared, night vision cameras to support the bat survey. The night vision equipment comprised of Canon XA20 cameras combined with Dedolight IR Redzilla infrared flood lamps.

The emergence surveys commenced fifteen minutes before sunset and lasted up to an hour and a half after sunset.

All bat species and bat behaviour were recorded.

3 Survey Results

3.1 Site Description and Habitats

The study site comprises of a dilapidated, detached farmhouse, located at Chapel Farm, Newbridge Road, Cefn Mawr. The building is constructed of stone and brick. The exterior of the building has been rendered in pebble dashing. The building has a pitched roof clad in slate. The building is likely to originally be of pre-20th century origin.

Chapel Farm currently operates as a livery stables therefore there are various wooden stable blocks and a hardstanding yard located adjacent to the farmhouse. Newbridge Road itself runs immediately to the north of the farmhouse. The former gardens to the west and north of the farmhouse comprises of areas of dense bramble scrub and self-seeded young trees including ash, sycamore and buddleia. There is an area of former lawn located to the east of the farmhouse which is partially overgrown with nettle.

The site is located within a semi-rural setting on the southern edge of the village of Newbridge. The Ruabon to Chirk railway line runs immediately to the west of the site and includes a corridor of broadleaved trees. Land to the south of the site comprises of pastureland. The River Dee is located approximately 300m to the south of the site. There are extensive areas of broadleaved woodland located along the river. The adjacent Newbridge Road is brightly lit by street lighting of an evening; some of this lighting spills onto the farmhouse itself.

Surrounding habitats are considered to be of 'moderate' suitability for foraging bats.

The study site's location and site layout is shown on Figures 1 and 2 in the Appendix. Photographs of the site are also provided in the Appendix.

3.2 Bat Survey

3.2.1 Scoping Assessment

The farmhouse is three stories in height. The lower half of the building is constructed of stone and this has been added to, with an additional brick built storey, in the past.

The exterior of the building has been rendered in pebble dashing. The rendering is mostly intact, apart from on the building's north face where large sections of render have decayed exposing the underlying stone and brick walls of the building. The damaged areas of render have been colonised by ferns and buddleia. There is also a large buddleia bush growing out of the south face of the building.

The building has a pitched, gabled ended roof which is clad in slate. The building has a tall chimney breast at its North face. There is a small porch of the buildings west face and a small, brick extension at the building's east face

Internally, the building is in a poor state of repair, with areas of collapsed ceiling and floor. The walls of the building are plastered, although this has decayed in several sections. The interior of the building is relatively bright as there are glazed windows on the building's south face and at the east and west gables. The interior of the building was found to be heavily cobwebbed.

The upper floor rooms partially extend into the roof void space. However, the building has an inaccessible void located above the upper floor rooms. Some sections of the upper floor lathe and plaster ceiling had collapsed, allowing the roof void space to be partially viewed. The loft space was observed to be approximately 2 m in height and the internal face of the roof is lined with bitumen hessian felt. The loft space is not insulated. The observable parts of the loft space were heavily cobwebbed throughout.

Bats can potentially enter the building interior via broken window panes at the buildings south, east and west faces (Target Notes 1, 3, and 5 on Figure 2). No other obvious potential bat access points to the building interior were identified.

No bat droppings or other bat field signs were found within the building interior.

Externally, the building offers some suitable roosting features for individual/small numbers of non-breeding bats. These include areas of lifting and missing fascia boarding at the south facing eaves of the building (Target Notes 1 and 2); crevices around decayed render and stonework at the building's north face (Targets Note 6); and there are also some missing roof slates and areas of slightly raised ridge; however the roof was largely observed to be intact. The pebble dashing at each gable was observed extend over the verge and so the gables appeared to be well sealed.

No bat droppings or other bat field signs were found during the external inspection.

Taking the above into account, the farmhouse was assessed as offering a '**moderate**' bat roosting potential.

3.2.2 Further Bat Surveys

A further two bat activity surveys of the farmhouse were undertaken comprising of dusk emergence surveys on the 25th May 2022 and on the 13th July 2022.

Two surveyors were used for each survey to allow full coverage of the identified potential bat roosting features (surveyor locations shown on Figure 2 in the Appendix).

Dusk Survey – 25th May 2022.

Weather for the first dusk emergence survey was recorded as calm, dry and clear and with temperatures of 13°C. Sunset was recorded at 21.19.

In summary, no bats were identified roosting within the building.

Moderate levels of bat activity were recorded throughout survey, with the first bat observed comprising of a soprano pipistrelle pass at recorded at 21.32 on Newbridge Road.

Common and soprano pipistrelle bats were intermittently recorded foraging up and down Newbridge Road throughout survey. Lower levels of activity were recorded in the farmyard comprising of occasional common and soprano pipistrelle bat passes. A noctule was recorded overflying the site at 21.47.

No other significant bat activity was recorded during survey.

Dusk Survey – 13th July 2022.

Weather for the second dusk emergence survey was recorded as dry, overcast and calm and with temperatures of 13°C. Sunset was recorded at 21.38.

In summary, no bats were identified roosting within the building.

Moderate levels bat activity were again recorded at the site. This also comprised of common and soprano pipistrelle bats foraging along Newbridge Road and also moderate levels of common pipistrelle and soprano pipistrelle bat foraging activity within the farmyard.

The first bat activity was recorded at 21.35 and comprised of three common pipistrelle bat passes. The bats arrived from houses to the north of the site. Given this early activity (the bats were recorded three minutes before sunset), it is very likely that there is a common pipistrelle bat roost located opposite the site.

A *Myotis* bat species was also recorded passing along Newbridge Road at 22.12.

No other significant bat activity was recorded during survey.

3.2.3 Breeding birds

No current or historic nesting bird activity was identified at the site. However, the interior of the building could be used by nesting birds during the breeding season. The interior of the building is accessible to birds via the broken windows at the east, west and south faces of the building. Further potential nesting habitat is offered within the areas of scrub and young trees which have colonised the exterior of the building.

4 Summary & Recommendations

4.1 Bat Survey Summary

Kingdom Ecology have carried out a Bat Assessment of a dilapidated farmhouse located at Chapel Farm, Newbridge.

The farmhouse is located in an area offering relatively good habitat for foraging bats, with the River Dee and its associated riparian woodland located approximately 300m to the south of the site.

The farmhouse itself supports some potential bat roosting features, largely associated with areas of damaged render, damaged fascia and occasional missing roof tiles. The interior of the farmhouse is potentially accessible to bats via broken windows at the building's east, west and south faces.

The interior of the building is relatively bright owing to the windows present and has plastered walls and ceilings. The internal rooms and the void space of the house were observed to be heavily cobwebbed.

No bat droppings or other bat field signs were found during the initial bat scoping survey. The farmhouse was initially assessed as offering a '**moderate**' bat roosting potential.

A further two bat emergence surveys of the house were carried out on the 25th May and on the 13th July 2022.

The bat emergence surveys recorded moderate levels of bat foraging activity around the farmhouse; however, no roosting bats were recorded.

The surveys identified that the east, west and north faces of the house are brightly lit by street lighting of an evening.

Taking the survey findings into account, it is considered to be unlikely that the building supports roosting bats.

Nevertheless, it is recommended that care is taken during works to demolish the building. If any bats or evidence of bats are found, then works should immediately stop and further advice should be sought from an appropriately qualified ecologist.

4.1.1 Bat and Bird Boxes

It is recommended that the overall site be enhanced for bats and breeding birds, with appropriate bat and bird boxes installed within the new development.

It is recommended that 2 x integral bat boxes are built into the structure of the newly constructed house with the bat boxes installed at the building's gables.

The bat boxes should be located at a minimum height of 4m and be positioned as close to the gable apex as possible. A suitable model of integral bat box is the Habibat 003. This bat box can be designed with a bespoke finish to match the proposed brickwork and to remain unobtrusive. The bat box would need to be interleaved with the brickwork and so would need to be considered during construction and could not be installed retrospectively.

Lighting proposals for the site will need to ensure that the bat box locations are not illuminated by any artificial lighting.

It is also recommended that 4 x integral sparrow boxes are built into the structure of the new development. A suitable model of integral house sparrow box is the Schwegler 1SP house sparrow terrace (or similar). The sparrow terrace should be constructed at a minimum height of 2 m; and should ideally be positioned beneath the shelter of the building's eaves.

4.2 Other Recommendations

4.2.1 Breeding Birds

The farmhouse itself and also, to a lesser extent, the scrub and young trees which have colonised the building exterior could support nesting birds during the breeding bird season.

All wild birds in England and Wales are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to intentionally kill, injure or take any wild bird, or take, damage or destroy the nest (whilst being built or in use) or its eggs.

Demolition of the house and any removal of tall vegetation from the site should be timed to avoid the breeding season (March-August inclusive).

Where this is not possible, a check for breeding birds should be carried by an appropriately qualified ecologist no more than 48 hours prior to the start of clearance works. If any nesting birds are found to be present, destruction of the nesting site will need to wait until the ecologist can confirm that all young birds have fledged.

5 Appendix

PHOTOGRAPHS

Photograph 1- South face of farmhouse



Photograph 2- North face of farmhouse



Photograph 3- East facing gable of farmhouse



Photograph 4- Upper floor room of Farmhouse



**FIGURE 1-
Site Location**



KEY

 Study Site

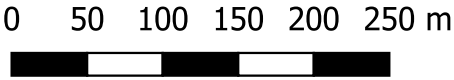
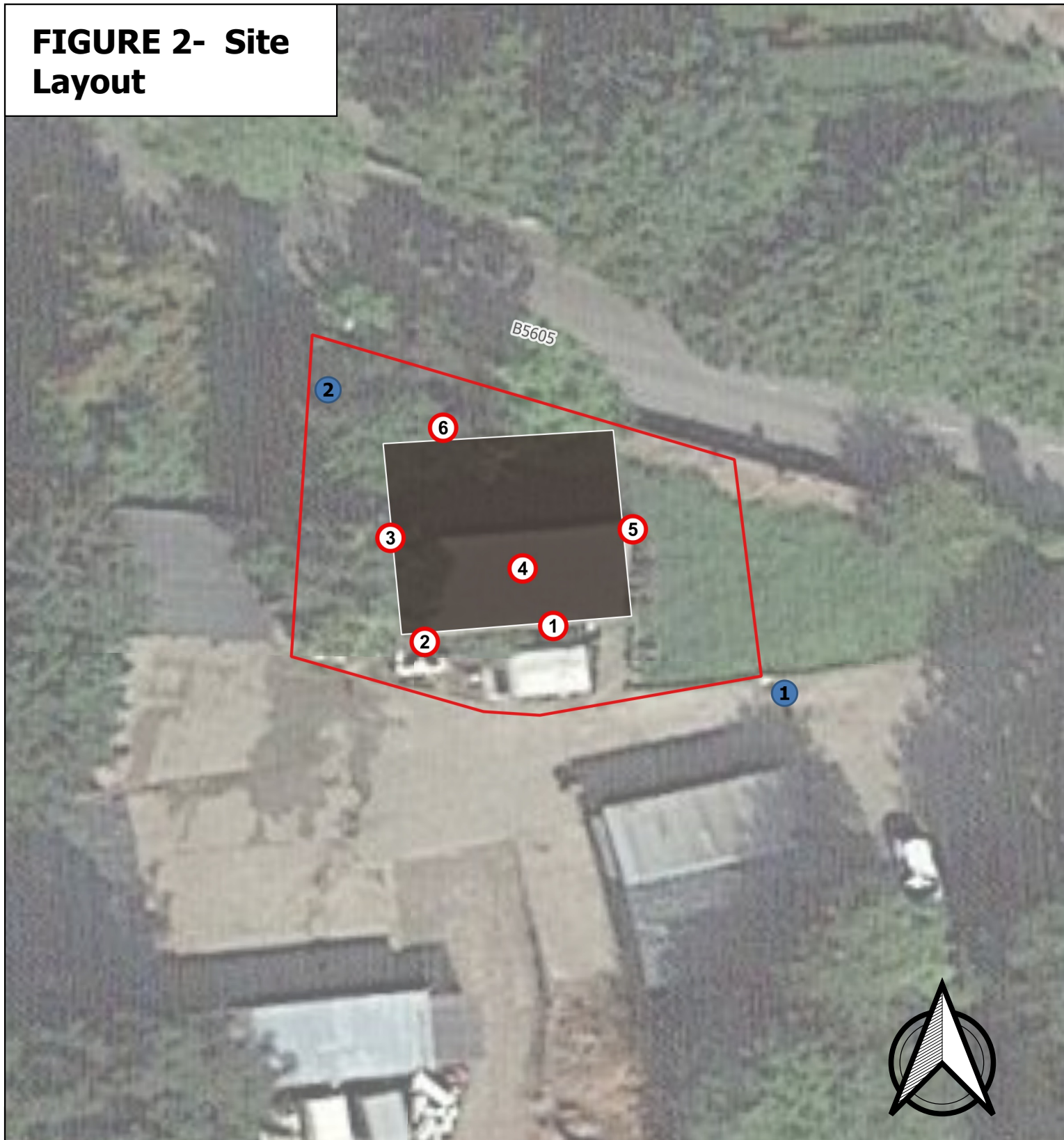


FIGURE 2- Site Layout



KEY

- | | | | |
|---|------------|---|--------------|
|  | Study Site |  | Target Note |
|  | Building |  | Bat Surveyor |

0 2 4 6 8 10 m

