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Tyrer Ecological Consultants Ltd, Formby Business Centre, 42 Duke Street, Formby, L37 4AT

Dusk Survey Results

October 2021

The Poplars,
Cockbank Lane,
Marchwiell,
Wrexham,
LL13 0SU

National Grid Reference: SJ35334609



The Poplars, Cockbank Lane, Marchwiel, Wrexham, LL13 0SU
Dusk Survey Results

Document Title	Dusk Survey Results
Prepared for	Blueprint Architectural Ltd
Prepared by	Tyrer Ecological Consultants Ltd

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Survey Dates	Dusk: 13/07/2022	Dusk: 10/08/2022
Reviewed by	Mr J Pescod Qualifying CIEEM	
Review date	22/09/2022	
Approved by	Mrs. K. Wilding CEnv MIEMA ACIEEM	
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This report aims to provide general advice on ecological constraints associated with any development of the site and includes recommendations for further survey; it is not intended that this report should be submitted with a planning application for development of the site, unless supported by the results of further surveys and a detailed assessment of the effects of the proposed development

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Appendix I: *Preliminary Ecological Appraisal, The Poplars, Tyrer Ecological Consultants Ltd*
(May 2022).

1.0 Background and Introduction

As part of a proposed planning application regarding The Poplars, Marchwiell, Wrexham; a Preliminary Ecological Appraisal (PEA) was undertaken by Tyrer Ecological Consultants Ltd during March 2022, in accordance with the *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017) and other best practice guidance. It is understood that proposals entail the demolition and redevelopment of the property including a larger driveway and detached garage. This survey and report was commissioned by Blueprint Architectural Ltd.

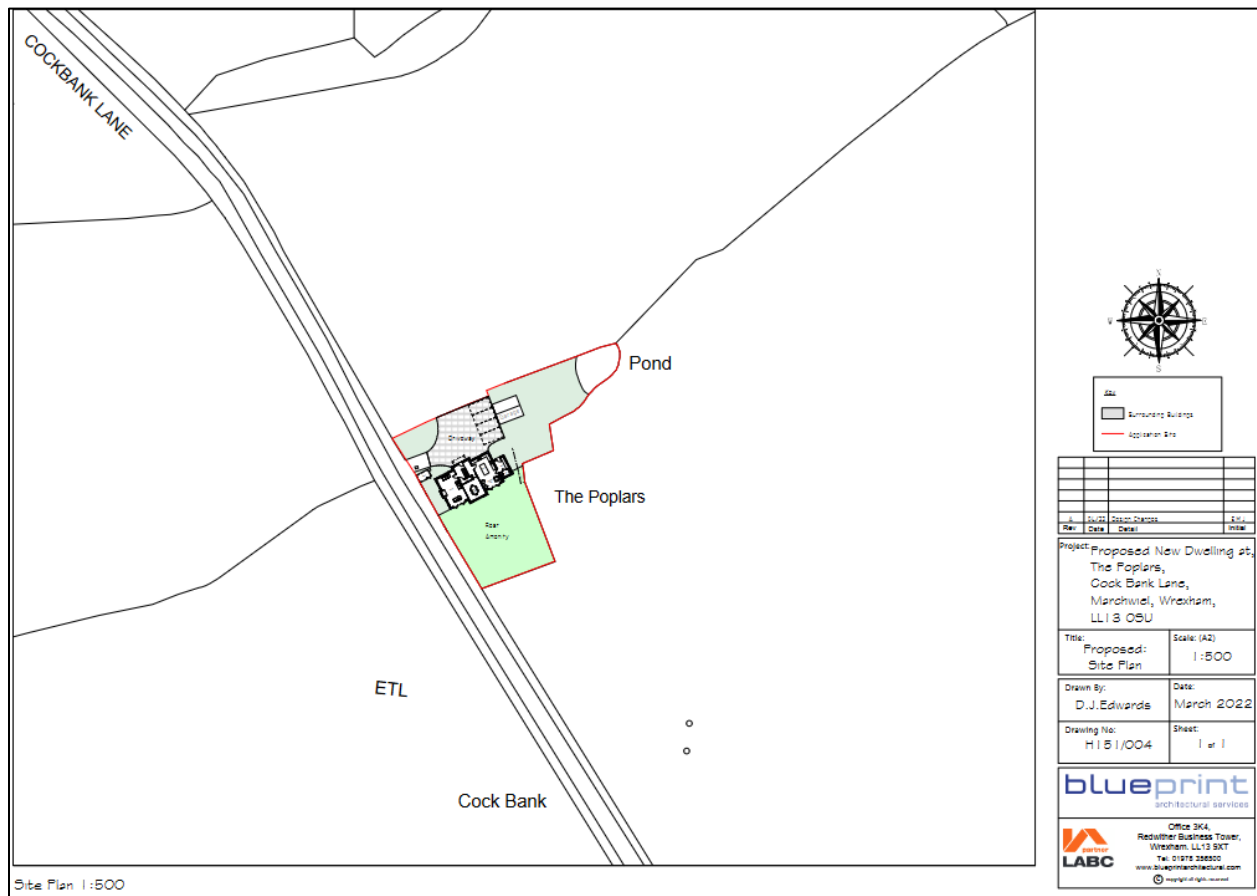


Figure 1.1 – Proposed plan at The Poplars, Cockbank Lane, Marchwiell (Source: image extracted from copyright Google Earth)

- 1.3 Tyrer Ecological Consultants Ltd were re-commissioned by Blueprint Architectural Ltd to undertake the further bat surveys in line with comments received from the local planning authority as the loft could not be inspected, the decision was made to carry out emergence surveys; the surveys (two dusk emergence surveys) were carried out in July 2022 in accordance with current Bat Conservation Trust (BCT) Guidelines during the active season of bats (see Figure 1.1).

Table 7.3 Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).		
Low roost suitability	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry survey ^a (structures). No further surveys required (trees).	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey. ^b	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn. ^b

Figure 1.1 - Extract from *Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines*, 3rd ed. (2016)

- 1.4 Tyrer Ecological Consultants Ltd were re-commissioned to carry out the recommended further surveys in the 2022 active season of bats; the surveys comprised two dusk surveys taking place between July and August and were carried out by experienced surveyors in accordance with the Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) edition. The results, conclusions and recommendations following the surveys, including any indicative mitigation to inform an application to Natural Resources Wales (NRW) for a European protected species mitigation licence (EPSML), where necessary, will be supplied within this report.
- 1.5 This report should be read, understood and presented to the local authority as an addendum to Appendix I (see Contents page).

2.0 Bats - Legislation & Policy

2.1 All British bats and their roosts¹ are afforded protection under Schedule 5 of the Wildlife & Countryside Act (1981) (as amended) and are listed in Schedule 2 of the Conservation of Habitats & Species Regulations 2019 (as amended). When dealing with cases where a European Protected Species (all UK bats) may be affected, a planning authority is a competent authority within the meaning of the Regulation 7 of the 2019 Regulations and therefore has a statutory duty to have due regard to the provisions of the Regulations in the exercise of its functions.

2.2 The presence of a species protected under European or UK legislation, or under Section 7 of the Environment (Wales) Act 2016 is a material consideration when a planning authority is considering a development proposal which, if carried out, would be likely to result in disturbance or harm to the species or its habitat and to ensure that the range and population of the species is sustained.

2.3 Use of Buildings by Bats

- a) Summer breeding roost,
- b) Hibernation roost,
- c) Transitional or temporary roost.

Roost selection is often closely correlated to suitable foraging habitat within a reasonable commuting distance from the roost and different sites are used depending upon insect densities and abundance, climatic conditions can also affect their ability to successfully forage. All British bats are insectivorous.

Policy

2.4 The Environment (Wales) Act 2016 ("the Act") - requires local planning authorities to have regard to area statements in the development of Local Development Plans. The Act introduced an enhanced biodiversity and resilience of ecosystems duty (Section 6 Duty). This duty applies to public authorities in the exercise of their functions in relation to Wales and will help maximise contributions to achieving the well-being goals. The Nature Recovery Action Plan supports this legislative requirement to reverse the decline in biodiversity, address the underlying causes of biodiversity loss by putting nature at the heart of decision-making and increasing the resilience of ecosystems by taking specific action focused around objectives for habitats and species.

Part 1 of the Act promotes sustainable management of natural resources, and in Part 1 section 6 states:

"A public authority must seek to maintain and enhance biodiversity in the exercise of functions in relation to Wales, and in so doing promote the resilience of ecosystems, so far as consistent with the proper exercise of those functions."

¹ The term roost is generically referred to as a place that bat/s use for the any of the above reasons, however it should be noted that under the Conservation of Habitats & Species Regulations 2019 (as amended) (Regulation 43 (d) the term roost is not used but refers to "a breeding site or resting place of such an animal" and is afforded legal protection. The roost, breeding site or resting place of bats, which ever terminology is used is legally protected whether or not bats are in occupation.

- 2.5 Planning Policy Wales (PPW) 11th Edition (2021) sets out the land use planning policies of the Welsh Government. It is supplemented by a series of Technical Advice Notes (TANs), Welsh Government Circulars, and policy clarification letters, which together with PPW provide the national planning policy framework for Wales. PPW, the TANs, Minerals TANs and policy clarification letters comprise national planning policy.
- 2.6 PPW and the National Development Framework (published as Future Wales – the National Plan 2040) set out how the planning system at a national, regional and local level can assist in delivering these requirements through Strategic Development Plans (SDPs) and Local Development Plans (LDPs).

PPW (2021) states:

“The presence of a species protected under European or UK legislation, or under Section 7 of the Environment (Wales) Act 2016 is a material consideration when a planning authority is considering a development proposal which, if carried out, would be likely to result in disturbance or harm to the species or its habitat and to ensure that the range and population of the species is sustained. Planning authorities should advise anyone submitting a planning application that they must conform with any statutory species protection provisions affecting the site, and potentially the surrounding area, concerned. An ecological survey to confirm whether a protected species is present and an assessment of the likely impact of the development on a protected species may be required in order to inform the development management process. It is considered best practice that screening to determine the presence of protected species should be carried out by a competent ecologist on the basis of data provided by the relevant Local Environmental Record Centre.”

- 2.7 Strategic Policy PS 19: Conserving And Where Appropriate Enhancing The Natural Environment of the Anglesey and Gwynedd Joint Local Development Plan (2011-2026) states:

“The Councils will manage development so as to conserve and where appropriate enhance the Plan area’s distinctive natural environment, countryside and coastline, and proposals that have a significant adverse effect on them will be refused unless the need for and benefits of the development in that location clearly outweighs the value of the site or area and national policy protection for that site and area in question.”

Eryri Local Development Plan (LDP) 2016-2031

- 2.8 The revised Eryri Local Development Plan (2016-2031) was adopted by Snowdonia National Park Authority on the 6th of February, 2019. The revised Eryri Local Development Plan consists of a Written Statement and the Proposals and Inset Maps and together with National Planning Policy will guide decisions on planning applications on all future development and land use planning within the National Park.

Section 4: Protecting and Enhancing the Cultural and Historic Environment, states:

4.21 - Where planning consent is required for an alteration to a building that in the opinion of the Authority displays features which reflect the local architectural tradition or building style of the area, the Authority will ensure that the scale, design, and proposed construction materials and methods used for the work are in keeping with the character of the original building. Any proposal which is of a scale, design, or relies upon materials that are considered inappropriate will not be permitted. Care will also need to be taken to protect any sites of nature conservation importance and especially protected species which are more likely to inhabit older buildings.

4.27 - Beyond the Housing Development Boundary of any settlement, the re-use of rural buildings such as field barns or agricultural sheds can provide a source of new affordable housing and offer a means of successfully preserving rural buildings. Great care is needed however in deciding the suitability of a building for re-use as a residential dwelling, in order to avoid harming either the character of the original building or the environment in which it is situated. Particular care will need to be given to safeguard protected species and mitigation measures should be provided in schemes of conversion where required.

3.0 Protected Species in North Wales

- 3.1 Up to thirteen bat species have been recorded in North Wales, most of which use built structures for roosting. The most frequently encountered bat species is the Common Pipistrelle (*Pipistrellus pipistrellus*) and its abundant status in Wales is reflected throughout the UK. North Wales is also stronghold for the rare Lesser horseshoe bat (*Rhinolophus hipposideros*).

4.0 Survey Methods

- 4.1 Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) edition states:-

“The guidelines do not aim to either override or replace knowledge and experience. It is accepted that departures from the guidelines (e.g. either decreasing or increasing the number of surveys carried out or using alternative methods) are often appropriate. The guidance should be interpreted and adapted on a case-by-case basis according to site-specific factors and the professional judgement of an experienced ecologist. Where examples are used in the guidelines, they are descriptive rather than prescriptive.”

Survey Protocol

- 4.2 The timing of the survey took place in July and August thus within the main active period of bats, at a time when maternity colonies have formed / returned to summer roosts and bats are in a highly active and social stage.

In accordance with Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016), it is specified that:

“The bat active period is generally considered to be between April and October inclusive”, though the period of May - August is the optimal most productive period that Natural England accept bat surveys and grant European Protected Species Mitigation licences (EPSML).

When considering survey protocol the decisions about whether dusk or dawn surveys are selected are based on the extensive experience of the Tyrer Ecological Consultants Ltd, the nature of the building and species that can be anticipated as being present either at the property or in the locality and how complex a building is relative to observations.

In this case the dwelling at The Poplars presents no problems for dusk observations, as there are no visual limitations; if a building is complex, or observations were restricted, or species that are difficult to detect at dusk are suspected then dawn surveys would be conducted.

It should also be noted that at dawn temperatures are usually lower than at dusk and as a result bat activity can, in some locations, be less frequent. Additionally, where singular/small numbers of bats are present and there are no survey constraints then dawn surveys are of no more value than dusk surveys; singular bats can and do return to a roost before dawn and as a result a dawn

survey would not record them anyway. Dawn surveys are more productive when “back tracking” bat to a roost from foraging grounds. BCT issued an Interim Guidance Note in May 2022 in advance of a 4th edition of bat survey guidelines to be published in Summer 2022, which supersedes existing guidelines and states in relation to dawn surveys that:

“Whilst dawn surveys can reward surveyors with displays of dawn swarming behaviour, there is a concern that bats that have returned earlier will be missed...”

The 4th edition of the survey guidelines will therefore transition away from the standard use of dawn surveys, particularly as a method for presence/absence surveys...”

Survey protocol should not be determined by parties who are 1) not familiar with the site 2) do not have a sufficient level or experience in relation to the undertaking of dusk/dawn bat surveys.

- 4.3 The number of surveys and surveyors was adequate relative to the roost potential that was identified on attendance of the site i.e. ‘Moderate’ and requiring three surveyors to accurately monitor potential roost features (PRF’s) on the buildings at any one time.
- 4.4 Surveyors were strategically positioned so that all elevations with bat roost potential, as described in the daytime report, could be observed without limitations. The surveyors were aided with Anabat or equivalent electronic bat detectors that enable the locating and recording of the high frequency calls that are emitted by bats; echolocation calls were analysed the next day using Analook or equivalent computer software to verify field observations

5.0 Dusk & Dawn Survey Results

5.1 Two dusk emergence surveys were respectively undertaken on the 13th July and 10th August 2022 by a combination of two surveyors, as per Table 5.1 below. See Table 5.2 - 5.3 for raw data.

Table 5.1 - Surveyor Credentials

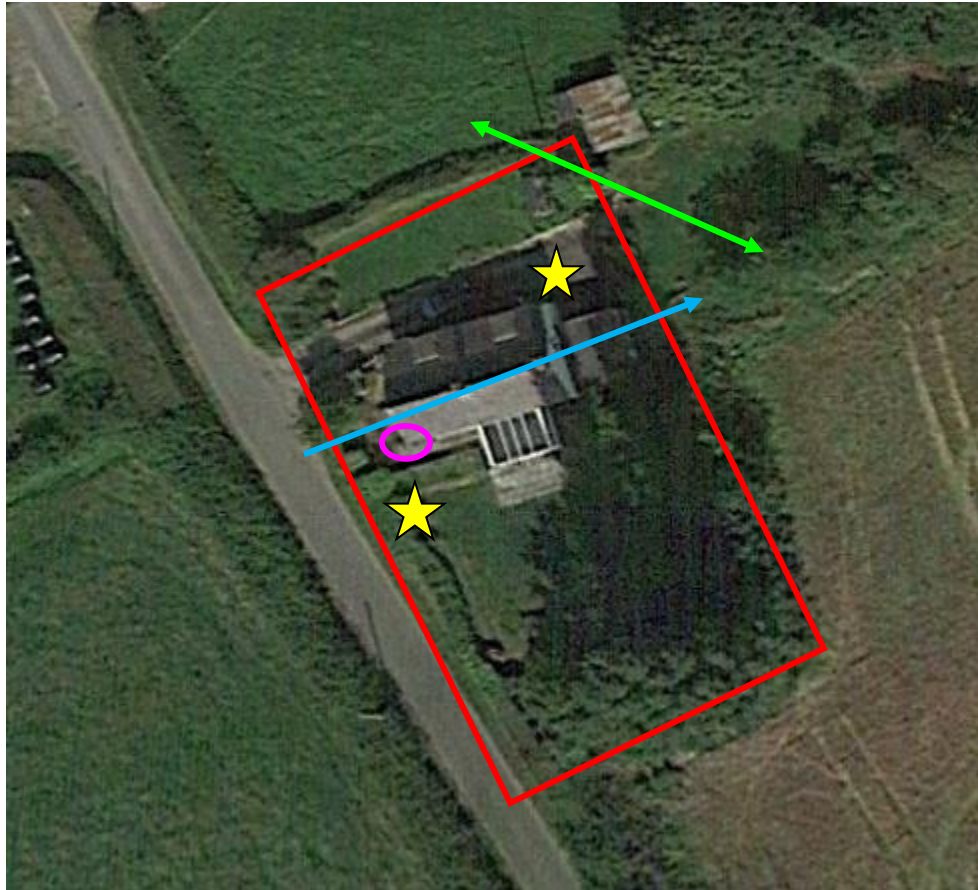
Name	Experience	Details
Dusk surveys		
Mr. H. Green	30+ years	Highly experienced Bat Specialist and carer whom has professional surveying experience over decades with Tyrer Ecological Consultants Ltd. Licenced in England.
Mr. M. Smith	7 years	An experienced seasonal bat surveyor with Tyrer Ecological Consultants Ltd

Table 5.2 – Survey dates, times and weather conditions

Times of Survey	Date	Weather Conditions
Dusk survey 2113 - 2300	13/07/2022	Sunset: 2133: Dry & Clear, Calm with moderate breeze, 5% cloud cover Start temp: 16 ° C End temp: 11 ° C
Dusk survey 2029 - 2220	10/08/2022	Sunset: 2049: Dry & Clear, light breeze, 1% cloud cover Start temp: 23 ° C End temp: 17 ° C

Table 5.3 – Raw data from the surveys

Dusk Survey	Time	Activity
13/07/2022 Dusk 1	2113- 2300	Summary: Emergence of a singular Common Pipistrelle (<i>Pipistrellus pipistrellus</i>); Pass of a single Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>) and Noctule (<i>Nyctalus noctula</i>). 2158hrs: Soprano Pipistrelle (SP) (<i>Pipistrellus pygmaeus</i>) bat, flew onto the site from the west. 2204 hrs: Common Pipistrelle (CP) (<i>Pipistrellus pipistrellus</i>) Emerged from the western gable from above the soffit. 2207hrs: Noctule bat (Noc) (<i>Nyctalus noctula</i>) heard feeding over site but not observed.
11/08/2021 Dusk 2	2029 - 2220	Summary: Emergence of a singular Common Pipistrelle, foraging by up to two Soprano pipistrelle and single pass of a Noctule Bat. 2125 hrs: Common Pipistrelle bat emerged from the western gable from the soffit. 2113 hrs: Noc Passing over site, heard but not seen. 2119 hrs: CP feeding in the lane east of the building. 2120 hrs: Two SP foraging in the garden to the south of the building.



Dusk Survey 1 – 13/07/2022

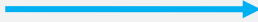
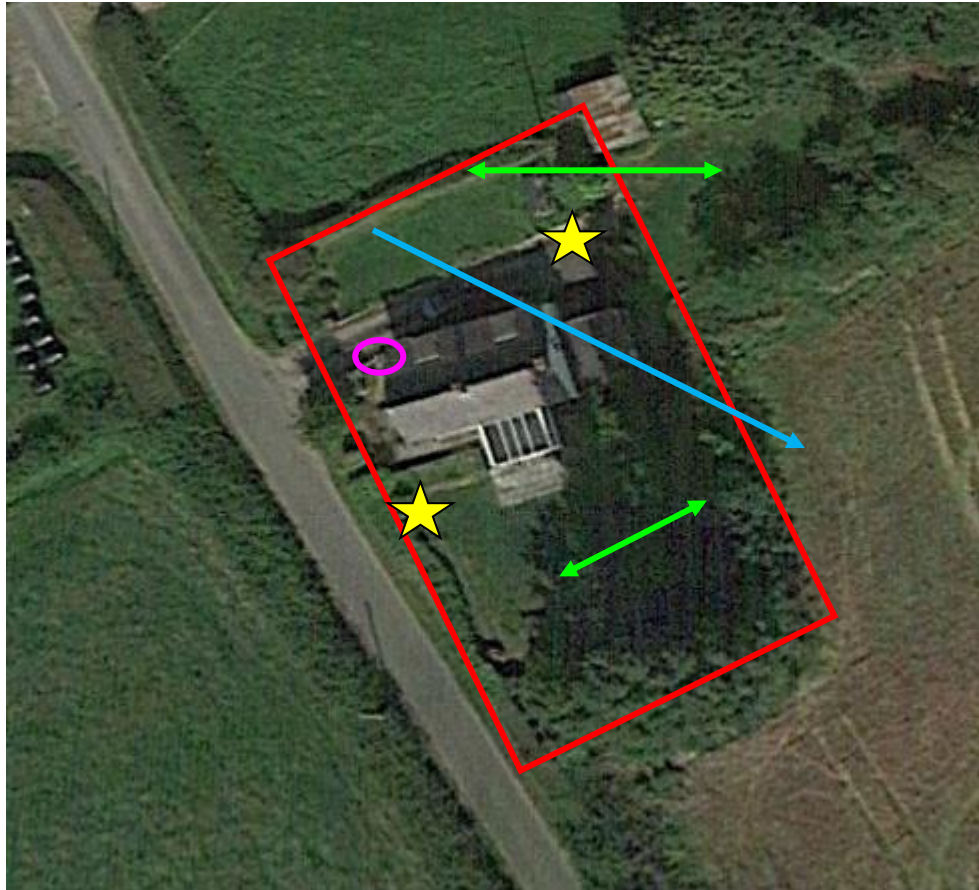
	Survey boundary		Foraging activity
	Surveyor Positions		Commuting activity
	Directional compass		Emergence & entry point

Figure 5.1 - Visual Aid - Dusk Survey Results with Key



Dusk Survey 2 – 10/08/2022

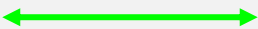
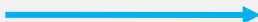
	Survey boundary		Foraging activity
	Surveyor Positions		Commuting activity
	Directional compass		Emergence & entry point

Figure 5.2 - Visual Aid - Dusk Survey Results with Key

6.0 Dusk & Dawn Survey Conclusions & Recommendations

- 6.1 The survey results gathered by Tyrer Ecological Consultants Ltd conclude that The Poplars, Cockbank Lane is being used by a singular Common pipistrelle (*Pipistrellus pipistrellus*) bat for roosting purposes. Based upon the evidence, the building is host to two 'Day roost' above the soffit box on each corner of the western elevation, with activity around the site by a maximum of one Common Pipistrelles, two Soprano Pipistrelles and a single Noctule at any one time.
- 6.2 Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016) describes a 'Day roost' as:
- "a place where individual bats, or small groups of males, rest or shelter in the day but are rarely found by night in the summer".*
- 6.3 The full extent of the proposed works are understood to involve the demolition of all buildings on site; the destruction of a bat roosts will therefore need to be addressed from both a conservation and legal perspective along with the application of appropriate mitigation. A European Protected Species Mitigation Licence (EPSML) will be required to legally destroy places that are actively used for breeding, rest or shelter (roost) by bats, however, before a licence can be applied for all planning issues need to be resolved.
- 6.4 In order that the LPA can implement its obligations under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579), appropriate and proportionate mitigation will need to accompany the planning application which will demonstrate that the *"favourable conservation"* of the species concerned can be maintained.
- 6.5 Installation of new lighting as part of a development scheme that exceeds current levels may have a negative impact upon foraging/commuting bats confirmed as present in the vicinity, particularly if increased light spillage occurs in areas currently free from illumination such as illumination of boundary features. There are several measures that can be used to offset impacts upon bats, where lighting is unavoidable; these include, however are not limited to, the light source used and luminaire design, and accessories to direct light at its intended target. Numerous software programmes are currently available which can be used inform lighting plans, demonstrating how lighting decisions will illuminate a site. Refer to the Bat Conservation Lighting Guidelines for further strategic information if applicable.

7.0 Indicative Mitigation

- 7.1 From the evidence gained during the dusk surveys, the use of building by bats is considered to be of 'low' level significance relatable to Common Pipistrelle bats and their current status. (Reference: EPS mitigation licencing guidance in Wales); the proposed mitigation is proportionate to that use. However, if at any time that assessment is revised to a higher level, then the mitigation will also be accordingly revised.
- 7.2 The following procedures and mitigation recommendations are designed to allow the Local Planning Authority (LPA), in association with their ecological advisers, to determine a Planning Application where a European Protected Species has been identified and will be affected by the work for which the Planning Application seeks consent.
- 7.3 The LPA need to consider the mitigation in relation to the potential success of a Natural Resources Wales (NRW) licence application and/or if in their opinion the mitigation is considered as being appropriate, or if it is over and above what is required; if they determine that the mitigation is appropriate then a Planning Condition should be attached requiring the roost provision to be

implemented in accordance with this ecological report. If the LPA consider that the mitigation is over and above what is necessary but require “enhancement” as part of their Local Biodiversity/Net-Gain Planning Policies this should be included in the terms of Consent. The acting bat ecologist deems the proposed new roost creation as appropriate and not over and above what is required.

- 7.4 Notwithstanding that Planning Consent is granted or equally if the work is undertaken outside of the planning system, whereby projects that do not require planning consent may affect bats or their roost, including disturbance, it does not absolve the applicant, site owner, developer or any other party involved with the work from ensuring that an application is made for a NRW development licence, to legally undertake work that will affect bat(s) or their roost(s). If work is undertaken without a licence and bat(s) or their roost(s) is/are affected then a breach of current wildlife legislation will occur for which penalties are high.
- 7.5 Under Regulation 53(1) and 56(3)(a) of the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579), a licence is required prior to disturbing bats or destroying/damaging or obstructing any place that is used by bats as a resting place or breeding site. The licence is issued by the EPS Licensing Team of Natural Resources Wales (NRW).

Summary of Mitigation

- 7.6 The demolition of the existing dwelling to allow for the subsequent creation of a new dwelling and detached garage is the key component of the applicant's plans for the site; however, it is acknowledged that the presence of roosting bats needs to be addressed from both a legal and conservation perspective.
- 7.7 The following procedures and mitigation recommendations are designed to allow the Local Planning Authority (LPA), in association with their ecological advisers, to determine a Planning Application where a European Protected Species has been identified and will be affected by the work for which the Planning Application seeks consent.

In addition, Local Planning Authorities in accordance with the obligations placed upon them by way of their duties under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019/579) have to take into consideration the presence of a European Protected species (EPS) before determination of an application where it/they have been identified.

- 7.8 No foraging habitat will be lost as a result of the proposals. Existing foraging habitat in the form of nearby trees and hedgerows will mean all proposed new roost(s) will not be at any further distance from valuable foraging areas of the site.
- 7.9 External lighting on site post-development is likely to be slightly greater than what currently exists to facilitate the future occupation, however any new lighting to be installed will be sensitive to the local designated status of the environment and will be directed away from any new bat roost access points, flight paths and foraging/commuting areas.

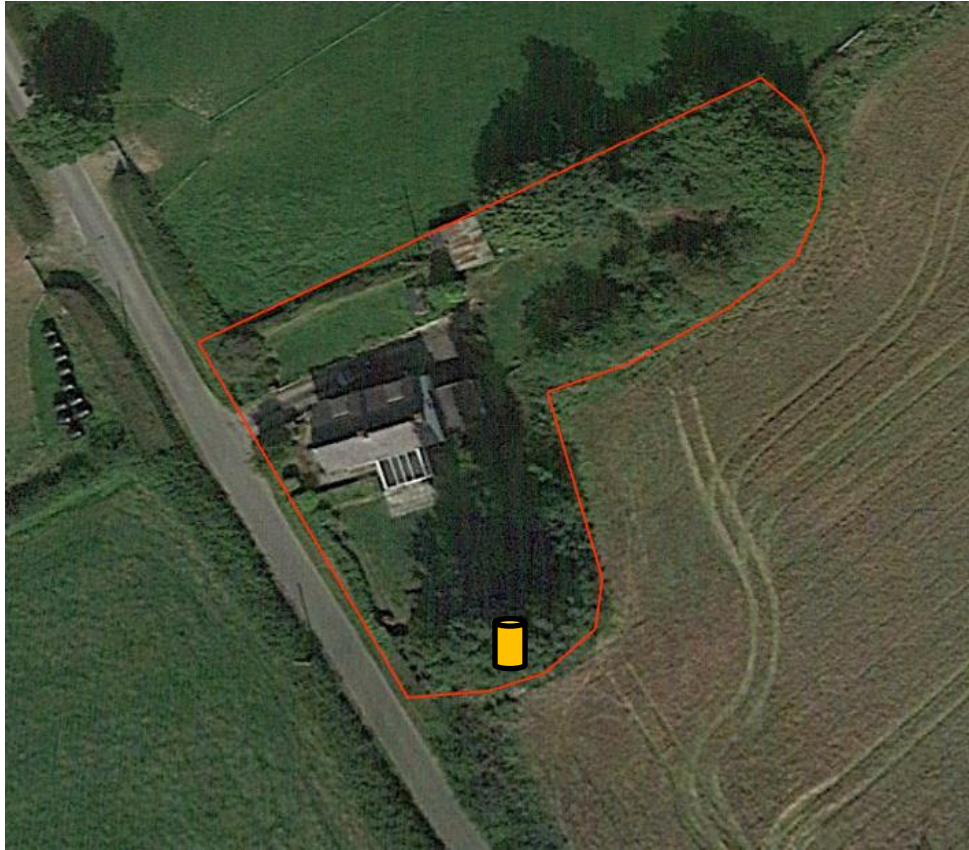


Figure 7.1 – Receptor roost [] proposed locations in reference to the surveyed structure (adapted over Google Earth Pro 2022)

Pre-works - assigned Ecological Clerk of Works (ECoW)

- 7.10 Once an EPSML is in place, at the pre-commencement stage a suitably qualified Ecologist (SQE) is to undertake a site induction 'Toolbox talk' to the Licensee and all contractors on possible bat presence and discuss document features taken from the EPSML, i.e. License, Method Statement, Mitigation Figures and Work Schedule to be kept on site for the duration of the work. Prior to any work being undertaken the presence/absence of bats, as far as is possible, will be established by undertaking a thorough investigation of the areas at which bats have been observed using the site, namely the soffits on both of the western gable ends, as well as the roof tiles in close proximity to these locations. This will involve a thorough inspection of these areas during dismantling using endoscopes and / or narrow-beam torch, as necessary, and will involve a soft roof strip at the local areas of interest around slates/tiles and soffits, as necessary, including the careful lifting, inspecting and removal of roof components.

The Ecologist will supervise careful dismantling of all places of bat roost interest. In addition, at the Ecologist's/ECoWs discretion, wherever opportunities for bats exist in other areas of the building, supervised dismantling/inspections will extend to these areas with strategies for safely removing bat(s) applied, as long as a maternity colony is not considered to have taken up occupancy of the building.

All dismantling of potential roost features will be undertaken during favourable weather conditions (above 9°C).

Where crevices are extensive, or where it cannot be conclusively ascertained that bats are absent from a crevice, exclusion devices may be fitted for a period of 3 days and 3 nights, or longer, at the Ecologists discretion – this is where material is placed over the entrance area(s) of a roost allowing bats a means of escape whilst preventing them from re-accessing. This method will only be adopted if necessary, and exclusion fitted cavities will only be filled in following this process.

No post-development monitoring is required for the roosts given they are 'Day roosts' of 'Low' significance, as stated following current guidance (Bat Mitigation Guidelines) concerning Day roosts/low significance roosts.

All mitigation proposed is subject to the approval of the Natural Resources Wales EPS team who may influence the terms of this mitigation; all proposed roost provisions outlined hereafter will be dedicated for bats and permanent.

Work to be undertaken by the Ecologist

7.11 Capture/Exclusion:

Once an EPSML is in place, at the pre-commencement stage a suitably qualified Ecologist (SQE) is to undertake a site induction 'Toolbox talk' to the Licensee and all contractors on possible bat presence and discuss document features taken from the EPSML, i.e. License, Method Statement, Mitigation Figures and Work Schedule to be kept on site for the duration of the work. Prior to any work being undertaken the presence/absence of bats, as far as is possible, will be established by undertaking a thorough investigation of the areas at which bats have been observed using the site, namely the soffits on both of the western gable ends, as well as the roof tiles in close proximity to these locations. This will involve a thorough inspection of these areas during dismantling using endoscopes and / or narrow-beam torch, as necessary, and will involve a soft roof strip at the local areas of interest around slates/tiles and soffits, as necessary, including the careful lifting, inspecting and removal of roof components.

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No post-development monitoring is required for the roosts given they are 'Day roosts' of 'Low' significance, as stated following current guidance (Bat Mitigation Guidelines) concerning Day roosts/low significance roosts.

Work to be undertaken by the Contractor

- 7.12 **New roost provision:** New roosting provision will be re-created in the form of a single soffit bat boxes (as permitted via the design of the development) above the soffits on the western elevations of the new building/garage. The access points will be located as close to the confirmed roost areas as possible and will permit roosting opportunities for bats. These boxes are discrete and self-cleaning. See <https://www.wildcare.co.uk/soffit-bat-box.html> for a suitable box.
- 7.13 The mitigation bat roost will be permanent and dedicated for bats; it cannot or will not be used for any other purpose.
- 7.14 Management requirements for the roost(s) are considered to be absent, though it will be the Licensee responsibility to ensure all new roost access points and building condition remains in favourable-condition post-development.
- 7.15 All mitigation proposed is subject to the approval of the Natural Resources Wales EPS team who may influence the terms of this mitigation; all proposed roost provisions outlined hereafter will be dedicated for bats and permanent.

8.0 References

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Appendix I: *Inspection & Assessment in relation to Bats & Breeding Birds, Ecological Consultants Ltd (May 2022).*