

Preliminary Bat Roost Assessment (PRA) Report

Project: Glenmore, Higher Penley, Penley, Wrexham, LL13 0NB

Client: Robert Loughlin

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REPORT DETAILS

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Author(s)	Jonathan Molesworth <i>BSc (Hons) Grad CIEEM</i>
Technical reviewer(s)	Tristram Pearce <i>MCIEEM MRSB</i>
Proofed by	Charlotte Pearce
Date of review	16 th March 2020

CONTACT DETAILS

Pearce Environment Ltd	T: 01743 741 421
Cedar Lodge	M: 07811 113 250
Wilcott Marsh	E: info@pearce-environment.co.uk
Shrewsbury	W: www.pearce-environment.co.uk
SY4 1AR	

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1. EXECUTIVE SUMMARY

1.1 PURPOSE

- 1.1.1 The contents of this report detail the findings of a Preliminary Bat Roost Assessment (PRA) and nesting bird inspection undertaken during March 2020 at Glenmore, Higher Penley, Penley, Wrexham, LL13 0NB (hereafter referred to as 'the site'). The findings of this report have been used to inform a planning application for the proposed alteration/ conversion of buildings.

1.2 METHODOLOGY

- 1.2.1 The PRA comprised a desk study and field survey (including a nesting bird inspection). The site visit was carried out on 11th March 2020 by J Molesworth BSc (hons) Grad CIEEM.

1.3 KEY CONSTRAINTS AND RECOMMENDATIONS

- 1.3.1 The site (SJ 39531 40323), set within a rural environment, comprises a garage building (**B1**), the western extension to a dwelling (**B2**) and a barn/ stable building (**B3**).
- 1.3.2 Key ecological constraints and recommendations are summarised in the table below:

Species/ Group	Likelihood of Presence	Further Survey Requirements	Avoidance/ Mitigation/ Enhancement
Bats	'Low' roosting potential in B1 (no bat evidence found) 'Moderate' roosting potential in B2 and B3 (bat evidence found) Average foraging/ commuting opportunities across the site but some connectivity to the wider environment	A minimum of 1X Phase 2 bat activity survey for B1 + a minimum of 2X Phase 2 bat activity surveys for B2/ B3	TBC
Nesting Birds	'Moderate' nesting potential in B1/ B2 'High' nesting potential in B2 (disused nests found)	None	Sensitive works to B1 – B3 (outside of nesting season or pre-commencement checks) + bird box provision
Barn Owl	No past/ current evidence of a nest or roost	None	None required

- 1.3.3 Any new, native tree/ hedgerow planting on the site would be welcomed.
- 1.3.4 No further evidence of, or potential for, other protected/ notable species was noted during the survey and no adverse impacts upon species or habitats of ecological importance are envisaged, provided the provisions and further survey recommendations detailed within this report are adhered to.

2. INTRODUCTION

2.1 INSTRUCTION AND CONTEXT

2.1.1 Pearce Environment Ltd were commissioned by Robert Loughlin in March 2020 to undertake a Preliminary Bat Roost Assessment (PRA) and nesting bird inspection at Glenmore, Higher Penley, Penley, Wrexham, LL13 0NB (hereafter referred to as 'the site'). The site is centred on approximate Ordnance Survey Grid Reference (OSGR) SJ 39531 40323.

2.1.2 The site, covering a total area of ~0.3 hectares, is situated in a rural environment a short distance west of the village of Penley, approximately 10km southeast of Wrexham (**Figure 1**). The site itself comprises a dwelling, detached garage and stables/ barn, directly surrounded by a mosaic of pasture/ arable fields and scattered properties/ farmsteads in all directions, with a caravan park immediately to the west. The A539 is situated immediately north.

2.1.3 Existing vehicular access to the site is via a driveway which leads directly off the A539.

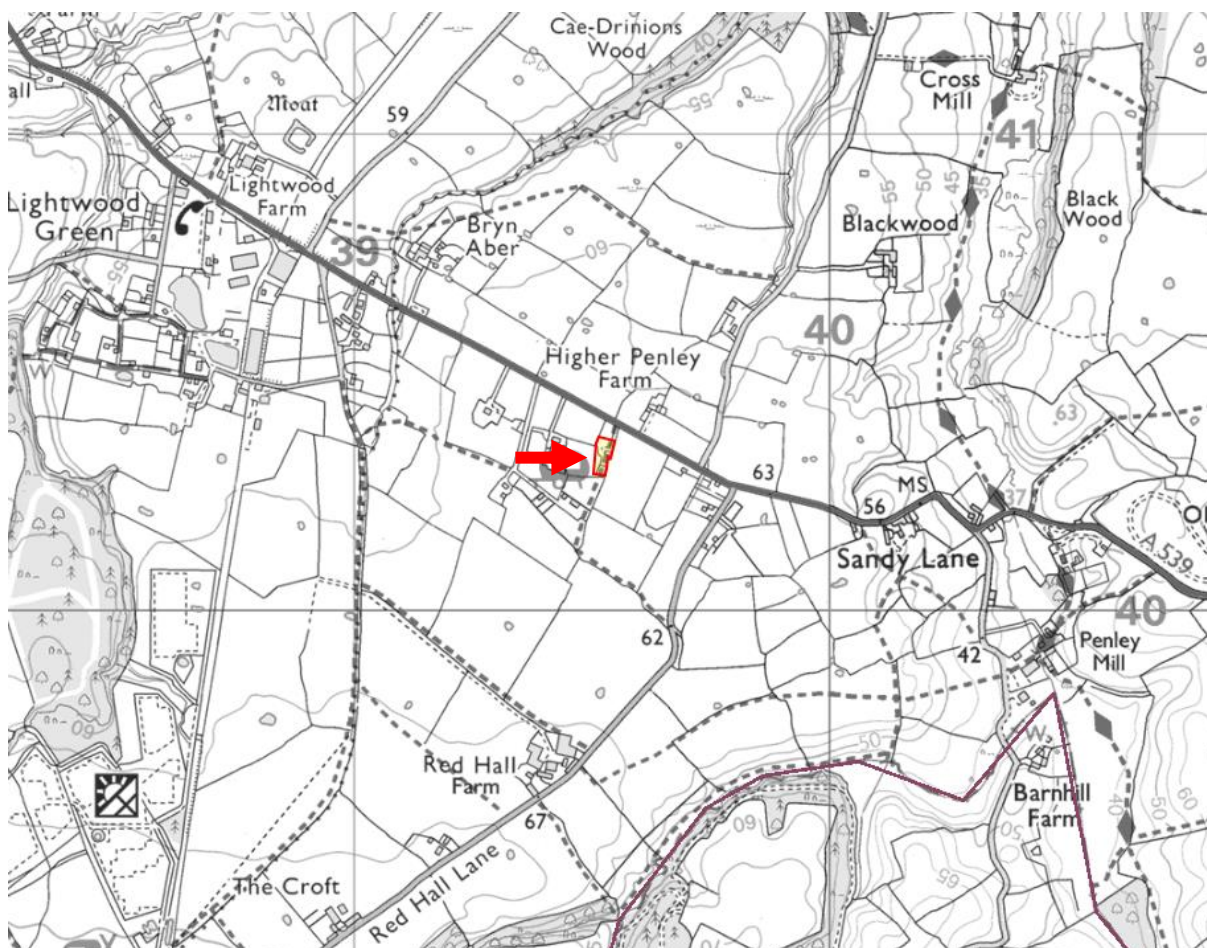


Figure 1 Site location (indicated), reproduced using freely-available online mapping resources

2.2 PROPOSALS

- 2.2.1 The findings of this report have been used to inform a planning application for the proposed conversion of buildings on the site into residential accommodation, which includes major re-roofing and repair works (**Appendix 1**).

2.3 AIMS AND SCOPE

- 2.3.1 This report sets out the findings of a desk-based study and site-based study – including a Preliminary Roost Assessment (PRA) and nesting bird inspection – undertaken by Pearce Environment Ltd in March 2020.
- 2.3.2 The aims of this report are to:
- i. Identify potential bat roost features and/ or evidence of bat activity in/ upon any building(s) and/ or tree(s) on the site;
 - ii. Determine the presence/ likely absence of birds nesting within/ upon any building(s) and/ or tree(s) on the site;
 - iii. Determine the requirement for Phase 2 bat activity survey(s);
 - iv. Detail any mitigation and compensation schemes, Reasonable Avoidance Measures (RAMs) and/ or licensing requirements, where necessary; and
 - v. Identify opportunities for the proposals to provide enhancements and add to the biodiversity resource within the site.

2.4 NATIONAL PLANNING POLICY

- 2.4.1 Planning Policy Wales (PPW)¹ was first published in 2002 and updated in December 2018. Guidance on protecting and enhancing biodiversity is contained within Section 6.4 of this document: Biodiversity and Ecological Networks. The Environment (Wales) Act 2016 introduced an enhanced biodiversity and resilience of ecosystems duty (the S6 Duty), which outlines five key ecosystem resilience attributes (diversity, extent, condition, connectivity and adaptability to change).
- 2.4.2 PPW states that planning strategies, policies and development proposals must consider the need to fulfil the following:
- Support the conservation of biodiversity, in particular the conservation of wildlife and habitats;
 - Ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats;
 - Ensure statutory and non-statutory designated sites are properly protected and managed;

¹ Planning Policy Wales (Edition 10; 2018). Welsh Government. Available at: <https://gov.wales/sites/default/files/publications/2018-12/planning-policy-wales-edition-10.pdf>

- Ensure that protected/ priority species and existing biodiversity assets are safeguarded from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them; and
- Secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.

2.4.3 In fulfilling the S6 Duty, Local Planning Authorities (LPAs) must have regard for the following:

- The list of habitats and species of principal importance for Wales, published under Section 7 of the Environment (Wales) Act 2016;
- The State of Natural Resources Report (SoNaRR), published by NRW;
- Any local/ area planning policies; and
- Reference to up-to-date ecological survey information (where appropriate).

2.5 LOCAL PLANNING POLICY

2.5.1 The site is located within the administrative area of Wrexham Country Borough Council. The Wrexham Biodiversity Action Plan aims to conserve and enhance local biodiversity. UK priority species and habitats in Wrexham Country Borough are listed within Appendix 1 of this document, and locally important/ endangered species are listed in Appendix 2.

2.5.2 The Wrexham Biodiversity Group comprises the following organisations: Countryside Council for Wales; Denbighshire County Council; Environment Agency; Flintshire County Council; Mammal Society; National Trust; North Wales Wildlife Trust; Royal Society for the Protection of Birds; and Wrexham County Borough Council.

2.6 LEGISLATION

2.6.1 All applicable legislation relating to bats and nesting birds is detailed in **Appendix 2**.

3. METHODOLOGY

3.1 DESK STUDY

- 3.1.1 The desk study is an important part of any ecological assessment as it provides contextual information, such as the sites' proximity to designated areas and known records of protected/ notable species. This information is used to supplement the findings of an ecological assessment, to evaluate the potential for the proposals to affect protected/ notable species and designations of conservation concern, and supports the recommendations and conclusions set out in this report.
- 3.1.2 The desk study was undertaken in March 2020. The information searched for/ requested and resources utilised are summarised in **Table 1**. All pertinent information obtained during the desk study is referenced later within this report.

Table 1 Summary of resources used and information requested during the desk study

Organisation/ Resource	Information Assessed (search distance from site boundary)
MAGIC website ²	• International statutory designations (1km) • National statutory designations (1km) • Previously-granted European Protected Species (EPS) licences (2km) • Aerial imagery

- 3.1.3 A full species and sites search from North Wales Environmental Information Service (COFNOD) will be obtained immediately prior to any further Phase 2 species survey(s) being undertaken.
- 3.1.4 No previous ecological reports for the site, or any immediately adjacent site(s), are known to the author.

3.2 FIELD SURVEY

- 3.2.1 The survey was performed by Jonathan Molesworth BSc (Hons) Grad CIEEM, an ecologist with 4 years' experience and holder of Natural England (NE) and Natural Resources Wales (NRW) licences for great crested newts (licence numbers: 2017-31597-CLS-CLS and 77860:OTH:SA:2017), a NE licence for white-clawed crayfish (licence number: 2018-38384-CLS-CLS), a first class degree in Biology from the University of Liverpool, and graduate membership with the Chartered Institute of Ecology and Environmental Management (CIEEM membership number: 15105). Jonathan is also a qualified tree climber and chainsaw operative, and is a member of the Shropshire Mammal Group and Shropshire Bat Group.
- 3.2.2 The survey date(s) and weather conditions are summarised in **Table 2**, below.

² Multi-Agency Geographic Information for the Countryside. Available at: www.magic.gov.uk/

Table 2 Survey date(s) and weather conditions

Date	Time	Temperature (°C)	Conditions
11/03/2020	10:00	10	Scattered cloud, no precipitation, dry under foot, fresh breeze

FAUNA

Bats

Preliminary Bat Roost Assessment: Built Structures

- 3.2.3 A daytime assessment of any built structure(s) on the site was undertaken to determine their potential to support roosting bats. An external assessment was made whereby external features considered potentially suitable for bats were identified and assessed. An internal assessment of all accessible areas (including loft spaces and basements/ cellars, where appropriate) was undertaken, which included a search for roosting bats (in crevices or free-hanging), bat corpses/ remains, bat droppings, feeding remains, scratch marks, staining and urine spots. The potential suitability of the structure(s) for roosting bats was assigned a rating of negligible-to-high in accordance with Section 5.2 of the Bat Conservation Trust's *Good Practice Guidelines*³ (**Appendix 3**).
- 3.2.4 Where necessary, the surveyor(s) was aided by the use of a high-power torch, ladder and Opticron Countryman 8X42 WA binoculars.
- 3.2.5 Recommendations for further survey requirements are based on information contained within Table 7.3 of the Bat Conservation Trust's *Good Practice Guidelines*.

Foraging/ Commuting Assessment

- 3.2.6 The suitability of the site and immediate surrounds for foraging and commuting bats was assessed, based on the presence or absence of potential foraging and commuting habitats, such as trees/ woodland, hedgerow(s), scrub, grassland and watercourses/ waterbodies. Connectivity to the wider landscape was evaluated, both during the desk study and field survey.

Nesting Birds

- 3.2.7 An internal and external assessment of any built structure(s) on the site was undertaken, to identify the presence of habitat/ features suitable for nesting birds. An assessment from the ground of any trees/ boundary vegetation located on or immediately adjacent to the site was also carried out, to identify the presence of habitat/ features suitable for nesting birds.
- 3.2.8 A search for active and/ or disused bird nests, nesting remnants and other field signs (including feathers, eggs, droppings and feeding remains) was undertaken. Observations of birds flying over or around the site were also noted.

³ Collins J. (Ed.) (2016). Bat Surveys for Professional Ecologist: Good Practice Guidelines (3rd Ed.). The Bat Conservation Trust, London.

Barn Owl

- 3.2.9 A thorough daytime inspection of any built structure(s) on the site was undertaken. A search for field signs pertaining to barn owl(s) which indicate the presence of a barn owl roost including barn owl pellets, 'liming' (streaks of droppings found at roosting sites/ perches) and moulted feathers, was undertaken. Roosts are categorised as either 'regular' or 'occasional' roosts, dependent upon the 'state' and quantity of the field signs observed. Any observations of potential nest sites – features within building(s) of a suitable size/ structure – or evidence of breeding barn owl(s) were noted.
- 3.2.10 Any features of the landscape on and immediately surrounding the site, broadly suited to barn owls, were identified and recorded.
- 3.2.11 The survey was undertaken in accordance with best practice guidelines⁴.

Other Species

- 3.2.12 Observations of any other notable flora and fauna were noted during the field survey.

3.3 LIMITATIONS

- 3.3.1 Whilst we make every effort to meet the client brief, no site visit can ensure prediction of the natural environment such as movement of species in response to variables such as weather and seasonality. As with any survey, it is a documentation of what the surveyor observes on the specific survey day and their interpretation of those observations.

Survey Timings

- 3.3.2 A PRA can be undertaken at any time of the year; however, it was taken into consideration that summer roosting bats are likely absent during March. It does, however, coincide with the bird nesting season.

Access

- 3.3.3 All areas of the site itself were fully accessible during the field survey.

⁴ Shawyer, C.R. (2011). Barn Owl *Tyto alba* Survey Methodology and Techniques for use in Ecological Assessment. IEEM, Winchester.

4. RESULTS

4.1 DESK STUDY

Statutory Designations

- 4.1.1 Statutory designations of conservation concern include Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites, which are internationally-recognised, and Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs), which are nationally-important.
- 4.1.2 A review of the information obtained did not identify the presence of any statutory designations of conservation concern within 1km of the site (**Figure 2**).

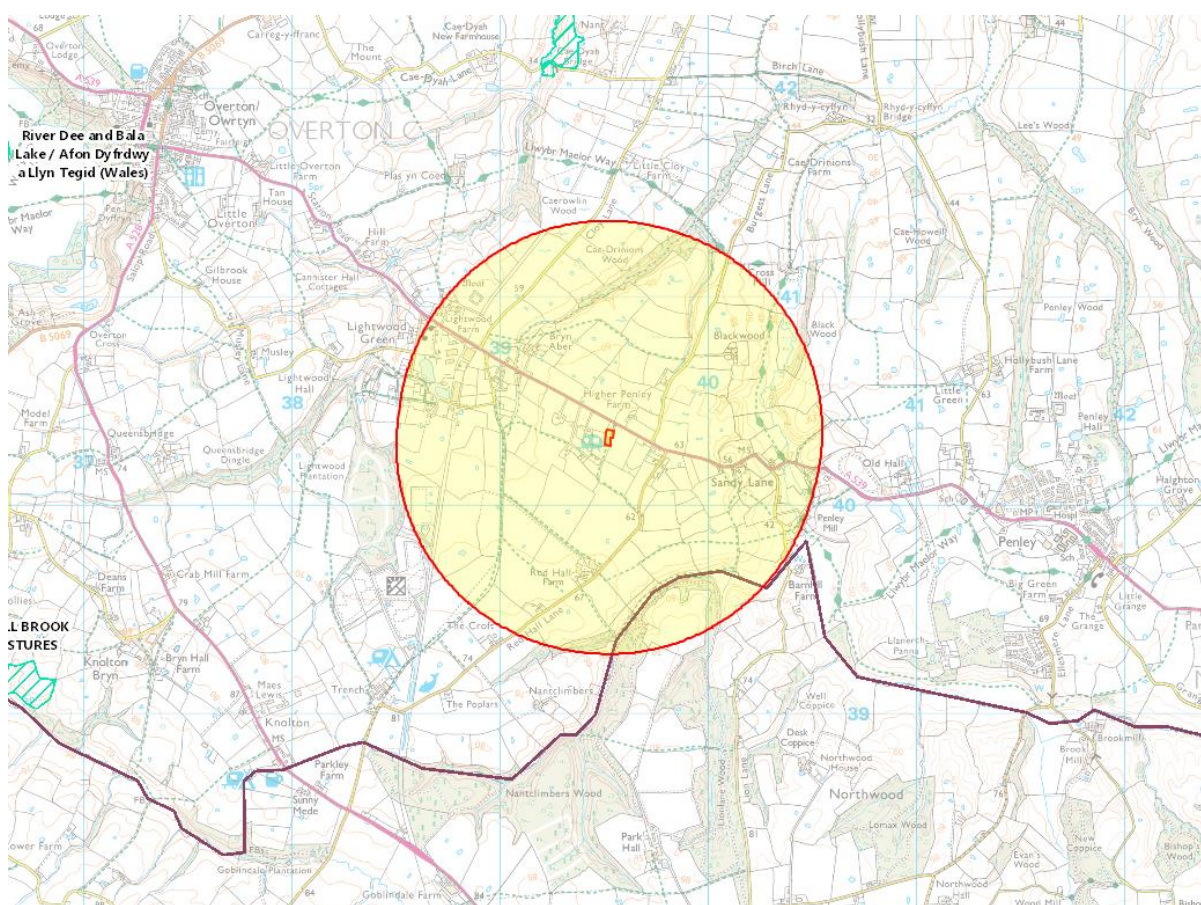


Figure 2 Proximity of statutory designations within 1km of the site, reproduced using freely-available online resources

Non-Statutory Designations

- 4.1.3 Non-statutory designations – generally termed Local Wildlife Sites (LWSs), Local Nature Reserves (LNRs) or Sites of Importance for Nature Conservation – are locally-recognised sites declared by the local authority.
- 4.1.4 A detailed COFNOD search for further non-statutory designated sites will be carried out immediately prior to any further Phase 2 species survey(s) being undertaken.

Habitats of Importance

4.1.5 No further habitats of importance were identified during the desk study.

4.2 SPECIES RECORDS

4.2.1 A COFNOD database search for protected/ notable species will be carried out immediately prior to any further Phase 2 species survey(s) being undertaken.

4.2.2 A search of granted European Protected Species (EPS) licences for bats did not identify any within 2km of the site.

4.3 BROAD HABITATS

4.3.1 The site (~0.3 hectares) supports the following range of broad habitats:

- Improved Grassland (B4);
- Tall Ruderal Herb (C3.1);
- Species-Poor Intact Hedge (J2.1.2);
- Defunct Hedge (J2.2);
- Fence (J2.4);
- Buildings (J3.6); and
- Bare Ground/ hardstanding (J4).

Buildings (J3.6)

4.3.2 The site contains three (3) buildings:

- **B1**, a detached garage located at SJ 39523 40351;
- **B2**, the western extension on a detached dwelling, located at SJ 39533 40335;
- **B3**, a barn and adjoined stables located at SJ 39520 40289.

4.3.3 **B1 – B3** were the subject(s) of the PRA and nesting bird inspection.

Other Observations

4.3.4 It was noted that the site and immediate surrounds are of generally low intrinsic ecological value (excluding potential use of the buildings for roosting bats/ nesting birds).

4.3.5 An aerial image of the site is shown in **Figure 3**.



Figure 3 Aerial image of the site/ survey area and immediate surrounds, showing buildings (B1 – B3)

4.4 FAUNA

Bats

Preliminary Roost Assessment (PRA)

4.4.1 **B1 – B3** were subject to a PRA during the site visit. The results of this are detailed below and photographs are included within **Appendix 4**.

B1 (garage)

4.4.2 **B1** is a detached, single-storey garage. This building is constructed from brick, with a pitched roof supporting slate roof tiles and timber barge boards.

4.4.3 Externally, **B1** is considered to be in moderate condition overall. Potential bat roost features/ ingress points, noted on the exterior of **B1** during the PRA, are evaluated below:

- Three (3) mortar gaps were identified on the eastern gable end of **B1** and two (2) mortar gaps were identified on the western gable end; these provide a degree of crevice-roosting potential.
- Several small gaps between the roof tiles were noted on the northern and southern elevations of **B1**; these may provide a potential ingress point into the small space between the roof tiles and the lining underneath.

- Several small gaps between the external walls and roof timbers, on the eastern gable end of **B1**; these provide potential crevice-roosting opportunity or an ingress point.

4.4.4 Internally, **B1** has an open, bitumen-lined roof throughout and a timber truss which is in good condition. Potential bat roost features/ ingress points, noted inside **B1** during the PRA, are evaluated below:

- Two (2) open windows are present on the western elevation of **B1**; these may provide potential bat ingress into the main internal space.
- At least three (3) tears were noted within the bitumen lining; these may provide a potential ingress point into the small space between this lining and the roof tiles.

4.4.5 No evidence of bat ingress was noted anywhere throughout **B1**.

4.4.6 **B1** is considered to provide 'low' bat roosting potential.

B2 (dwelling)

4.4.7 **B2** is a, detached two-storey dwelling. This building is constructed of brick and features pitched roof supporting slate roof tiles. The western extension of **B2** (separated from the older portion of the dwelling by a wall and with no connection between the respective loft spaces) was subject to the PRA.

4.4.8 Externally, **B2** is considered to be in moderate condition overall. Potential bat roost features/ ingress points, noted on the exterior of **B2** during the PRA, are evaluated below:

- Damage to the slate roof was noted on the southern gable end of **B2**; this may provide a potential ingress point into the loft void, as well as providing a degree of crevice-roosting potential in itself.
- Several other slipped tiles throughout the roof of **B2** provide a degree of crevice-roosting opportunity.

4.4.9 Internally, **B2** features a single loft void, accessible via a hatch. No artificial lighting is present within the loft. Potential bat roost features/ ingress points, noted within the interior of **B2** during the PRA, are evaluated below:

- An audible draft within the loft void is anecdotal evidence that potential ingress points into the loft from the exterior of **B2** exist.

4.4.10 A small accumulation of at least 15 fresh bat droppings, commensurate with those of pipistrelle species, were found within **B2** near to the access hatch and on the northern gable wall.

4.4.11 **B2** is considered to provide 'moderate' bat roosting potential.

B3 (barn/ stables)

4.4.12 **B3** is a large building comprising a two-storey barn adjoined to two (2) single-storey stable blocks, arranged in a 'C' shape. This building is constructed from breezeblocks

throughout, with pitched roofs supporting slate roof tiles. The stable blocks feature semi-partition walls (open at the apex).

4.4.13 Externally, **B3** is considered to be in moderate condition overall. Potential bat roost features/ ingress points, noted on the exterior of **B3** during the PRA, are evaluated below:

- The stable block sections of **B3** are open at the eaves and some upper stable doors are left open; this may provide potential ingress points into these portions of the building.
- The barn section of **B3** features a number of open window/ door spaces on the first-floor, allowing extensive ingress opportunities.
- A small number of minor tile gaps were noted throughout the roofs/ ridges of **B3**; these may provide a degree of crevice-roosting opportunity.

4.4.14 Internally, **B3** is open in structure throughout with no roof void(s) of any kind. The roof is bitumen-lined throughout and features timber trusses (some of which are reclaimed timbers) in moderate condition. No significant internal lighting was noted. Potential bat roost features/ ingress points, noted inside **B3** during the PRA, are evaluated below:

- Crevice roosting opportunities were noted between the roof timbers and internal eastern gable wall within the barn section of **B3**.

4.4.15 Evidence of bat ingress was noted in several areas of **B3**;

- No more than ten (<10) old bat droppings were found scattered throughout the stable blocks; this could be attributed to infrequent foraging behaviours.
- An accumulation of at least 40 droppings, approximately 1/2 seasons old, were found stuck to the wall and captured within cobwebs on the southern-most internal wall of the eastern-most stable block, in **B3**.
- An accumulation of at least ten (>10), estimated to be more than 2 seasons old, were found stuck to the wall below the cervices between the roof timbers and internal eastern gable wall, within the barn section of **B3**.

4.4.16 **B3** is considered to provide 'moderate' bat roosting potential.

Foraging/ Commuting

4.4.17 The site itself is considered to offer average potential foraging and commuting habitat for a common assemblage of bat species, although linear features (hedgerows) and trees in the near surrounds provide more significant opportunities. It was noted that connectivity to the wider environment is moderately good.

Nesting Birds

Nesting Bird Inspection

4.4.18 **B1 – B3** were subject to a nesting bird inspection during the site visit. The results of this are detailed below and photographs are included within **Appendix 4**.

B1 (garage)

4.4.19 No active/ disused bird nests were identified anywhere within or upon **B1** during the nesting bird inspection; however, evidence of the ingress of birds into this building (droppings) was found and open windows on the western elevation are the most likely point of ingress. The open roof structure may provide nesting opportunities.

4.4.20 **B1** is therefore considered to provide 'moderate' bird nesting potential.

B2 (dwelling)

4.4.21 No active/ disused bird nests were identified anywhere within or upon **B2** during the nesting bird inspection; however, evidence of the ingress of birds into the loft void (droppings) was found.

4.4.22 **B2** is therefore considered to provide 'moderate' bird nesting potential.

B3 (barn/ stables)

4.4.23 At least two (2) disused/ former bird nests, one (1) of which was commensurate with that of a swallow (*Hirundo rustica*), were identified within the stable block sections of **B3** during the nesting bird inspection and further evidence of nesting birds (droppings and the remains of a passerine bird) were also found. Extensive nesting opportunities are evident throughout this building, given its open structure and numerous potential ingress points.

4.4.24 **B3** is therefore considered to provide 'high' bird nesting potential.

4.4.25 A good number of passerine birds were observed flying over and around the site during the site visit.

Barn Owl

- No current or historic evidence of barn owl nesting sites/ features were identified anywhere upon/ within **B1** – **B3**, or throughout the remainder of the site/ immediate surrounds.

Other Wildlife

4.4.26 The presence of a number of potential standing waterbodies within 250m of the site is indicated on maps; however, the terrestrial habitat on the site itself (dominated by hardstanding and buildings) is considered poor for amphibians.

4.4.27 No additional signs of, or potential for, protected/ notable fauna was observed during the survey.

5. RECOMMENDATIONS

5.1 ECOLOGICAL CONSTRAINTS, IMPACTS AND RECOMMENDATIONS

- 5.1.1 Potential ecological constraints are detailed below, informed by the findings of the desk study combined with observed field signs or actual presence of protected species identified during the PRA/ nesting bird inspection.
- 5.1.2 Anticipated impacts are calculated based upon the proposals, and the status of protected/ notable species and habitats on the site.
- 5.1.3 Further survey requirements and mitigation, compensation and enhancement recommendations are informed by the relevant legislation and planning policy(s).

5.2 HABITATS

Statutory Designations

Impacts

- 5.2.1 Given the absence of statutory designated sites within 1km of the site, no negative impacts upon such designations are anticipated as a result of the proposals.

Recommendations

- 5.2.2 No further action is required.

Non-Statutory Designations

Impacts

- 5.2.3 A search for non-statutory designated sites within 1km of the site was not undertaken at the present time. However, given the nature of the proposals (works to buildings only), no negative impacts upon such designations are anticipated.

Recommendations

- 5.2.4 No further action is required.

5.3 FAUNA

Bats

Impacts

- 5.3.1 It is understood that **B1** (garage) is to be subject to major structural works, including removal of the roof. Given the 'low' bat roosting potential afforded to this building, these proposals have the potential to negatively impact upon roosting bats (if present).
- 5.3.2 It is understood that **B2** (dwelling) is to be subject to structural works, including repair of the roof. Given the 'moderate' bat roosting potential afforded to this building, these proposals have the potential to negatively impact upon roosting bats (if present).

- 5.3.3 It is understood that **B3** (barn/ stables) is to be subject to major structural works, including major internal works and alterations to external walls/ roofs where the barn and stable blocks adjoin. Given the 'moderate' bat roosting potential afforded to this building, these proposals have the potential to negatively impact upon roosting bats (if present).
- 5.3.4 Given the limited degree of bat foraging/ commuting potential on the site and the nature of the proposals, no significant long-term impacts upon foraging/ commuting bats are anticipated as a result of the proposals.

Recommendations

- 5.3.5 Phase 2 bat activity surveys are required to ascertain the presence or likely absence of bats roosting within **B1** – **B3** and, if present, the type/ size of bat roost, species present and ingress point(s). This will consist of:
- A minimum of two (2) dusk emergence surveys undertaken upon **B2** and **B3**, carried out at an appropriate time of year (May – September inclusive) and in accordance with current survey guidelines; and
 - A minimum of one (1) dusk emergence survey undertaken upon **B1**, carried out at an appropriate time of year (May – September inclusive) and in accordance with current survey guidelines.
- 5.3.6 In the event bats are confirmed roosting within any building(s) during the above prescribed surveys, up to three (3) bat activity surveys in total may be required for that specific building(s) in order to ascertain the exact use of the building(s) by bats.
- 5.3.7 This will determine the requirement for a European Protected Species (EPS) Licence from Natural Resources Wales (NRW) and inform all further mitigation and enhancement measures.
- 5.3.8 A species data search from COFNOD will be obtained to supplement the findings of Phase 2 bat activity surveys.
- 5.3.9 No works (such as the blocking of any potential ingress/ egress points, repairs to the roofs etc.) are to be undertaken upon **B1** – **B3** until Phase 2 bat activity surveys have been completed and the appropriate mitigation put in place.

Nesting Birds

Impacts

- 5.3.10 Works to **B1** and **B2** are considered to carry a moderate risk of negatively impacting upon birds, if undertaken during the nesting season.
- 5.3.11 Works to **B3** are considered to carry a high risk of negatively impacting upon birds, if undertaken during the nesting season.

Recommendations

- 5.3.12 No further survey(s) with regard to nesting birds is required.

5.3.13 Any major works to **B1 – B3** must be timed to occur outside of the bird nesting season (this is February – August inclusive). In the event that works are required within this time period then inspections for nests should be undertaken by a competent person immediately prior to the start of any works. Should any active nest be found, works shall cease and a minimum 5m buffer, appropriate marked, is to be formed until subsequent checks by an ecologist prove the absence of nesting birds.

5.3.14 The provision of a minimum of four (4) bird nesting boxes is recommended as an enhancement for biodiversity on the site and to ensure nesting opportunities remain on the site post-development. All bird boxes must be retained in perpetuity and their exact location/ specification may be discussed with a suitably-qualified ecologist, and alternative options can be considered. A selection of reliable options is detailed below, although suitable equivalents are acceptable (**Figure 4**):

- Schwegler Single & Double House Martin Nests. These should be installed in sheltered locations (such as under the eaves of a suitable building), installed at a minimum height of 2m and orientated in in southerly/ westerly direction.
- Schwegler Woodcrete 1B nest boxes (for trees) and/ or Schwegler Bird House nest boxes (for buildings). These should be installed upon a suitably-mature tree and/ or upon a suitable building, installed at a height no less than 2m and orientated in a southerly or westerly direction.
- Schwegler 1SP Sparrow Terrace nest boxes. These should be installed in a sheltered location upon a suitable building, at a height no less than 2m and orientated in a southerly or westerly direction.



Figure 4 Examples of Schwegler Double House Martin Nests (top left); Schwegler Woodcrete 1B nest boxes (top right); Schwegler Bird House boxes (bottom left); and a Schwegler 1SP Sparrow Terrace nesting box (bottom right)

5.3.15 All bird boxes must be retained in perpetuity and their exact location/ specification may be discussed with a suitably-qualified ecologist and alternative options can be discussed.

Other Species

5.3.16 Given the poor suitability of the terrestrial habitat on the site for amphibians and the nature of the proposals (works limited to existing buildings), no negative impacts upon amphibian species are anticipated.

5.4 OTHER ENHANCEMENTS

5.4.1 Any future tree/ hedgerow planting throughout the site would be welcomed:

- New hedgerow planting should be species-rich and utilise native species of local provenance (**Table 3**).

Table 3 recommended composition for new, native hedgerow planting

Common Name	Scientific Name	Percentage Inclusion
Hawthorn	<i>Crataegus monogyna</i>	60%
Blackthorn	<i>Prunus spinosa</i>	20-25%
Field Maple	<i>Acer campestre</i>	10-15%
Hazel	<i>Corylus avellana</i>	
Holly	<i>Ilex aquifolium</i>	
Elder	<i>Sambucus nigra</i>	5%
Guelder Rose	<i>Viburnum opulus</i>	
Field Rose	<i>Rosa arvensis</i>	
Crab Apple	<i>Malus sylvestris</i>	

- Hedgerow planting should be provided by installing bare rooted stock spaced approximately 30cm apart in two staggered rows to allow six whips per metre, and using supportive canes and plastic (preferably biodegradable) spiral guards.
- The laying of new hedgerows is recommended after approximately five (5) years, or once woody species have reached suitable maturity. This will improve these features by promoting new growth and a thicker hedge, benefitting a variety of wildlife.
- New, native tree planting should be provided by installing bare rooted stock, evenly-spaced and using supportive canes and protective, plastic spiral guards.
- Newly-planted trees/ hedgerows should be subject to an annual inspection during the winter months (November – February inclusive) and any dead or missing stock must be replaced.

6. CONCLUSIONS

6.1 SUMMARY OF THE SITES ECOLOGICAL SIGNIFICANCE

- 6.1.1 The site, set within a rural environment, comprises a garage building (**B1**), the western extension to a dwelling (**B2**) and a barn/ stable building (**B3**).
- 6.1.2 **B1** (garage) is considered to provide 'low' bat roosting potential, although no evidence of bats was found during the PRA. **B2** (dwelling) and **B3** (barn/ stables) are both considered to provide 'moderate' bat roosting potential, with some evidence of bats found within both of these buildings during the PRA. Phase 2 bat activity survey(s) must be undertaken on **B1** – **B3** in order to ascertain the presence/ likely absence of bats roosting within these buildings. This will determine the requirement of an EPS licence from NRW. The site, as a whole, offers average potential foraging and commuting habitat for bats but has some connectivity with the wider landscape. No impacts upon any commuting/ foraging habitats or features are anticipated as a result of the proposals. Full mitigation and enhancement recommendations regarding bat species will be informed by the Phase 2 bat activity surveys.
- 6.1.3 **B1** (bungalow) and **B2** (dwelling) are both considered to provide 'moderate' bird nesting potential, with evidence of bird ingress (droppings) into these buildings found during the nesting bird inspection. **B3** (barn/ stables) is considered to provide 'high' bird nesting potential, with at least two (2) disused bird nests found, along with other evidence of bird ingress (droppings/ remains). A number of passerine birds were observed flying over and around the site during the site visit. All major works to **B1** – **B3** must be undertaken outside of the bird nesting season, or a check for nests carried out prior to the initiation of works. Bird box provision is recommended as an on-site enhancement.
- 6.1.4 No further protected or notable species are considered a constraint to the proposals.
- 6.1.5 No negative impacts upon statutory/ non-statutory designated sites, priority habitats or any other habitats of importance are anticipated as a result of the current proposals. Any future landscaping of the site, including new, native tree/ hedgerow planting around the site boundaries, would be welcomed.
- 6.1.6 It is considered that implementation of the prescribed recommendations/ further survey(s) will ensure that there are no significant, adverse impacts upon protected/ notable species or habitats of ecological merit, and that the proposals will conform with the relevant legislation and national/ local policies.
- 6.1.7 Should the proposals be altered significantly, such that changes to the working area/ footprint, and the nature and/ or duration of the works arise, then a re-assessment of the likely impacts arising from these changes by a suitably experienced ecologist will be required.

7. BIBLIOGRAPHY

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Appendix 1 Existing & Proposed Site Plans

AWAITING

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Appendix 2 Legislation

The following EU Directives are relevant to bats and nesting birds in the UK:

- The EC Habitats Directive (92/43/EEC); and
- The EC Birds Directive (2009/147/EC).

Legal protection is afforded to bats and nesting birds in the UK, under the following legislation:

- Conservation of Habitats and Species Regulations 2017;
- The Wildlife and Countryside Act 1981 (as amended);
- The Natural Environment and Rural Communities Act 2006;
- Animal Welfare Act 2006;
- The Countryside and Rights of Way Act 2000; and
- Wild Mammals Protection Act 1996.

European Protected Species (EPS)

The Conservation of Habitats and Species Regulations 2017 transposes the EC Habitats Directive into UK law. All UK bat species are listed as European Protected Species (EPS) on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (Annex IV (a) to the Habitats Directive) and are therefore afforded full legal protection both under Regulation 42 of the Conservation of Habitats and Species Regulations 2017 and Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). It is an offence to:

- Intentionally or recklessly capture or kill a wild animal of an EPS;
- Intentionally or recklessly disturb any such animal;
- Intentionally or recklessly to take or destroy the eggs of such an animal
- Intentionally or recklessly disturb such an animal in a manner or in circumstances likely to significantly affect the local distribution or abundance of the species;
- Intentionally or recklessly disturb such an animal in a manner or in circumstances likely to impair its ability to survive, breed or reproduce, or rear or otherwise care for its young;
- Intentionally or recklessly damage or destroy a breeding site or resting place of such an animal (whether occupied or not); or
- To keep, transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal of an EPS, or any part of, or anything derived from, such an animal.

Nesting Birds

All wild birds, their nests and eggs are protected under Part 1 (Section 1) of the Wildlife and Countryside Act 1981 (as amended). Further protection is afforded to those birds listed under Schedule 1, including barn owl (*Tyto alba*) and peregrine falcon (*Falco peregrinus*). It is an offence to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy the egg of any wild bird;
- Have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act or the Protection of Birds Act 1954;
- Have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act or the Protection of Birds Act 1954;
- Use traps or similar items to kill, injure or take wild birds;
- Have in one's possession or control any bird of a species occurring on Schedule 4 of the Act unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations (see Schedules); or
- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

All UK animals are afforded protection against cruelty under the Animal Welfare Act 2006 (and wild mammals specifically under the Wild Mammals Protection Act 1996), regardless of their conservation status.

Priority Species/ Habitats

In Wales, priority species and priority habitats are listed under Section 7 of Part 1 of the Environment (Wales) Act 2016, replacing the duty in section 42 of the Natural Environment and Rural Communities (NERC) Act 2006.

Statutory Designated Sites

Designated sites with importance to nature conservation are afforded 'statutory protection':

- Special Areas of Conservation (SACs) are internationally-recognised sites containing species and/ or habitats listed in the EC Habitats Directive (92/43/EEC).
- Special Protection Areas (SPAs) are internationally-recognised sites containing species listed in the EC Birds Directive (2009/147/EC).
- Ramsar sites are internationally-recognised wetland sites designated under Convention on Wetlands of International Importance (1971).
- Sites of Special Scientific Interest (SSSIs) are nationally-recognised sites designated under the Wildlife & Countryside Act 1981, containing species and/ or habitats of national importance.
- National Nature Reserves (NNRs) are nationally-recognised sites designated under section 35 of the Wildlife & Countryside Act 1981.
- Local Nature Reserves (LNRs) are locally-recognised sites acquired/ declared by the local authority.

Non-Statutory Designated Sites

Non-statutory designated sites – generally termed Local Wildlife Sites (LWSs), Local Nature Reserves (LNRs) or Sites of Importance for Nature Conservation – are afforded varying levels of protection under local planning policy.

Appendix 3 Tables 4.1 and 7.3 from *Bat Surveys for Professional Ecologist: Good Practice Guidelines*⁵

Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions^a and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation^b). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.^c	Habitat that could be used by small numbers of commuting bats 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	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^a and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting 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	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions ^a and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats 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 For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

^b Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2015). This phenomenon requires some research in the UK but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in large buildings in highly urbanised environments.

^c This system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI, 2015).

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

⁵ Collins J. (Ed.) (2016) *Bat Surveys for Professional Ecologist: Good Practice Guidelines* (3rd Ed.) The Bat Conservation Trust, London.

Appendix 4 Site Photographs



Image 1 Southern and western elevations of B1



Image 2 Northern and eastern elevations of B1



Image 3 Eastern gable end of B1



Image 4 A typical view inside B1



Image 5 Mortar gap on the eastern gable end of B1



Image 6 Mortar gaps on the western gable end of B1



Image 7 Tear in the roof lining and tile gap, viewed from inside B1



Image 8 Small gap between the timbers and external wall on the eastern gable end of B1



Image 9 Northern and western elevations of B2



Image 10 southern and western elevations of B2



Image 11 Damaged roof at the southern gable end of B2



Image 12 Slipped roof tiles on B2



Image 13 Bat droppings stuck to the internal northern gable wall inside the loft void of B2 (also showing bird droppings)



Image 14 Bat droppings found on the floor near to the hatch within the loft void of B2



Image 15 Western-most stable block section of B3



Image 16 Join between the eastern-most stable block section and the barn of B3



Image 17 Western elevation of B3, showing barn and stable block



Image 18 Open eaves in the stable block sections of B3



Image 19 A typical view inside a stable block section of B3



Image 20 A typical view within the barn section of B3 (first-floor)



Image 21 A typical view of the roof of B3 (western-most stable block section)



Image 22 Crevices between the timbers and internal eastern gable wall inside the barn section of B3



Image 23 Accumulation of bat droppings found inside eastern-most table block section of B3, on the wall and stuck in cobwebs



Image 24 Bat droppings found on the wall below crevices between the timbers and internal eastern gable wall inside the barn section of B3



Image 25 Disused passerine bird nesting found inside a stable block section of B3