



Report Type: Preliminary Roost Assessment

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**Site Address: Hen Fache Fach
Llanrhaedr-ym-Mochnant
Powys
SY10 0DD**

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The report should be read in its entirety. Questions arising from the survey report should be directed to the author of the report who will be pleased to clarify any technical issues raised.

Whilst the surveyors make every reasonable effort, Greenscape Environmental Ltd cannot guarantee that all protected species have been identified and survey results are definitive. Many species are cryptic and transitional in habit.

Reports are considered valid for two years for planning purposes, after which time further survey information may be required.

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1 Executive Summary

1.1 Purpose of the Report

Greenscape Environmental Ltd was commissioned by Peter Richards & Co., to undertake a preliminary roost assessment of a barn at Hen Fache Fach to provide supporting information for a planning application for a barn conversion.

The survey report has these principal aims:

- To provide an initial assessment of the ecological value of the site in local context.
- To provide details supporting further surveys that may be required.
- To identify potential ecological constraints relating to the development, and recommend measures to avoid, reduce or manage negative effects, and to provide a net ecological gain.

1.2 Methodology

The appraisal included a desktop study for nearby designated sites and previously recorded protected species, and a site visit undertaken at the site, OS grid reference SJ11992713 on 9th August 2023 by C Sheil.

1.3 Key Impacts

The desktop study revealed no designated sites to be impacted within 1km. It was considered that the site could provide potential habitat for bat and bird species and these should be the main focus of the ecological appraisal.

The site comprises a traditional barn built of stone with a slate roof and areas of sheet metal. A single lesser horseshoe bat was found in the barn. Phase 2 bat surveys are required for a mitigation licence from Natural Resources Wales. With its roof structure, the building offers negligible potential for bat roosts.

Evidence of tawny owl was found in the barn but no evidence of nesting was found. An old swallow nest was also found.

1.4 Mitigation Measures

The development must then be conducted under an EPS Mitigation Licence from Natural Resources Wales. This can be applied for once planning permission is granted.

The developer will be responsible for ensuring no nesting birds will be impacted by the proposed development. A barn owl box will be erected near the site to provide compensation habitat.

The method statements provided in section 6.3.2 and 6.4.2 of this report will be followed, and work will be conducted at a suitable time of year to minimise potential impacts.

Table 1.1. Timing of Works

Action	Timing	Justification
Update phase 1 survey	After 12 months from report issue date	Ecological features can change and develop over time
Conduct phase 2 bat surveys	May to end of August 2024	This is when bats use buildings



2 Introduction

This report has been compiled by Chloe Sheil MZool (Conservation) who has 5 years' experience conducting ecological appraisals. It has been reviewed in line with Greenscape's Quality Management System.

For full details of surveyors and licences please see Appendix A.

2.1 Project Background

Greenscape Environmental Ltd was commissioned by Peter Richards & Co. on behalf of the client, Mr Edwards to conduct a survey to determine the presence of protected species and potential for the damage or destruction of habitats of value. This forms part of the planning application for a barn conversion at Hen Fache Fach.

2.2 Purpose of the Report

This report aims to:

- Identify the key ecological constraints to the proposed development relating to priority habitats and species and protected species (HMSO, 1981).
- Inform planning to allow significant ecological effects to be minimised or avoided where possible.
- Allow any necessary mitigation or compensation measures to be developed following the mitigation hierarchy.
- Identify any additional surveys that may be required to inform the assessment.
- Identify the opportunities offered by a project to deliver ecological enhancement (Ministry of Housing, Communities and Local Government, 2021).
- Provide information to assist landowners with avoiding committing legal offences in relation to wildlife (HMSO, 2000)

The development triggers the requirement for a preliminary bat survey as it involves the conversion, modification, of buildings which are agricultural buildings (e.g. farmhouses, barns and outbuildings) of traditional brick or stone construction and/or with exposed wooden beams.

2.3 Site Context and Location

The site is located north of Llanrhaedr-ym-Mochnant, OS grid reference SJ11992713. It is set in a rural environment surrounded by open farmland. There is some connectivity to the surrounding countryside via field boundary hedgerows. Woodland is 450m to the southwest. The surrounds provide potential foraging, resting and commuting opportunities for bats and birds.



3 Methodology & Constraints

Broad methodologies for data collection and interpretation were informed by PEA guidance (CIEEM, 2017). Full details can be found in Appendix B.

3.1 Desk Study

The desk study provides contextual information such as the site's proximity to designated areas. Previously recorded species in the vicinity are obtained from local records centres (BiS, 2023).

3.2 Field Survey

3.2.1 Date and Survey Conditions

Table 3.1. Survey conditions

Date	Time	Equipment Used	Weather
09/08/2023	13:00	Camera, strong torch	Hot, dry, partly cloudy
Comments	One surveyor used: C Sheil Constraints: The upper floor on the southwest corner was not safe to access All undated photographs in this document were taken on this date by C Sheil unless otherwise stated.		

3.2.2 Habitats

The habitats on site were assessed for their potential to support protected species and therefore assist in the determination of site value.

The barn had not been subject to any form of specific management, maintenance or cleaning and was in a natural redundant state.

3.3 Species Survey

3.3.1 Bats

An assessment of the suitability of site to support roosting bats was conducted following best practice guidance looking for evidence of roosting or potential access points (Collins, J. BCT, 2016). Constraints to this methodology include the lack of access into the southwest corner of the upper floor. This in part will be ameliorated by phase 2 bat activity surveys being conducted in 2024.

3.3.2 Birds

An assessment of the suitability of site and its surrounds to support nesting birds was conducted, looking for current/old nests and listening for bird calls. There were no constraints to this methodology.

3.3.3 Barn Owls

An assessment of the suitability of site and its surrounds to support barn owl was conducted following best practice guidance looking for droppings, pellets or nesting signs (Barn Owl Trust, 2012)



4 Baseline Ecological Conditions

4.1 Nearby Features of Importance

4.1.1 Designated Sites

The map from Natural England presented in Figure 4.1 indicated that the site is not within 1km of any designated areas.

MAGIC

Hen Fache Fach

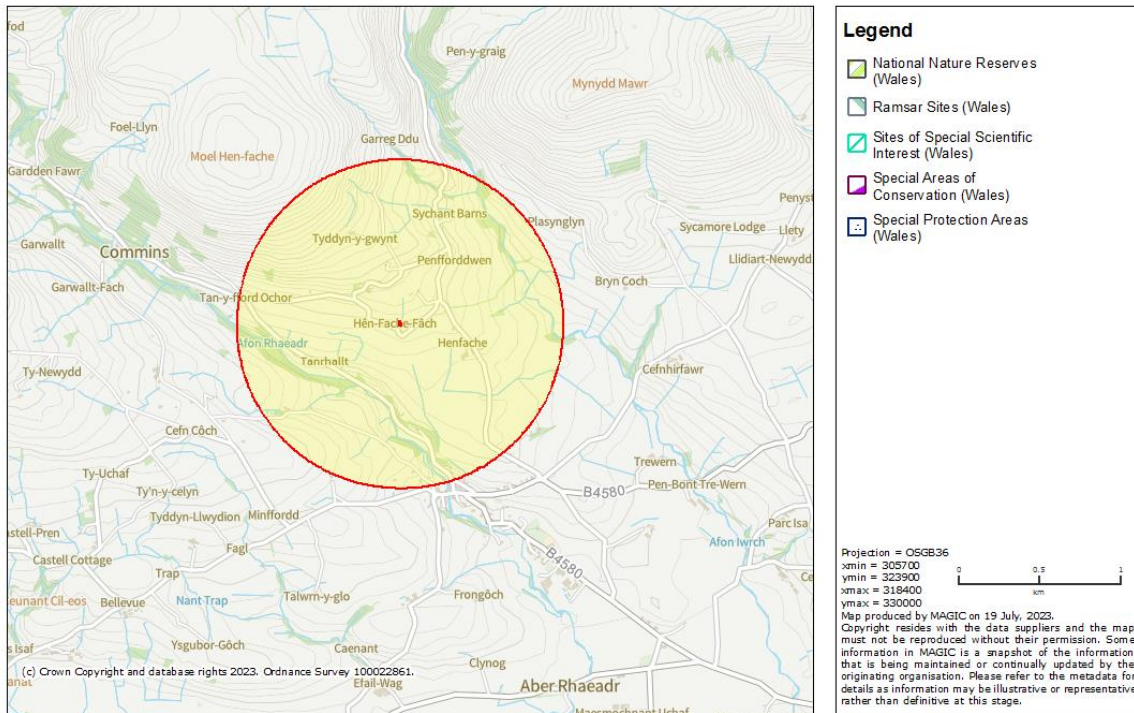


Figure 4.1. Identifying any designated areas near site, a 1km buffer is shown



4.2 Habitats on Site

The site comprises a traditional barn. It is built of stone and sheet metal. There is a lean-to on the eastern aspect which is constructed of sheet metal and timber. The pitched roof of the barn is slate tile and sheet metal.



Figure 4.2. External view of the barn from the southwest



Figure 4.3. External view of the northern side of the barn



The lean-to section and the ground floor under the southwest corner are both completely open to the front.



Figure 4.4. Ground floor of southwest corner



Figure 4.5. Internal view of lean-to

The middle section of the barn is open to the ridge. The roof is supported by purlins and modern trusses. The roof tiles are torched.



Figure 4.6. Roof space of middle section



The upper floor of the southwest corner of the barn could not be safely accessed but could be seen from the open doorway.



Figure 4.7. Southwest room on upper floor



4.3 Bats

4.3.1 Records

Records of bats within 2km include Brandt's bat (*Myotis brandtii*), Daubenton's bat (*M. daubentonii*), Whiskered bat (*M. mystacinus*), Natterer's bat (*M. nattereri*), noctule (*Nyctalus noctula*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*P. pygmaeus*), brown long-eared bat (*Plecotus auritus*) and lesser horseshoe bat (*Rhinolophus hipposideros*).

The nearest records are of lesser horseshoe bat 500m away, from 2020. Brandt's bat is recorded 1.1km away, from 2018. All other species are recorded 600m away from 2018.

4.3.2 Field Observations

Evidence of bats was found in the middle section of the barn. Scattered droppings were found on the floor and in cobwebs. These were indicative of lesser horseshoe bats.



Figure 4.8. Bat droppings on floor



Figure 4.9. Bat droppings in cobwebs

In spite of the lightness of the building, a single lesser horseshoe bat was found in the middle section, above the mezzanine.



Figure 4.10. Lesser horseshoe bat location



Figure 4.11. Lesser horseshoe bat

The middle section is accessible to bats via open windows leading into the lean-to.



Figure 4.12. Open windows

The building has potential roost features for crevice dwelling bats as there are holes in the stonework and between wooden beams.



Edwards



Figure 4.13. Other potential roost features



4.4 Birds

4.4.1 Records

Records of birds within 2km include swift (*Apus apus*), house martin (*Delichon urbicum*), swallow (*Hirundo rustica*), house sparrow (*Passer domesticus*) and barn owl (*Tyto alba*).

The nearest records are of swallow and house martin 600m away from 2022. Swift, house sparrow and barn owl are recorded 800m away from 2013 to 2022.

4.4.2 Field Observations

Evidence of barn owl and tawny owl was found in the barn. Feathers, droppings and pellets were found in the middle section of the barn as well as in the lean-to. The pellet in the middle section of the barn was considered to be over a year old.



Figure 4.14. Feather and pellet

The droppings and pellets found in the lean-to were in the centre, under a wooden truss. The pellets here were fresher and are no more than 6 months old.



Figure 4.15. Owl pellet location



Figure 4.16. Degraded pellet in lean-to

No evidence of nesting was found. The site is used as a perch, only.
Old swallow nests were also found on the ground floor.



Figure 4.17. Swallow nest



5 Description of Proposed Development

The current plans are for the conversion of the barn into a dwelling. The lean-to is to be demolished.

No plans have been drawn up at the time of writing this report.



6 Impacts, Enhancements and Mitigation

6.1 Nearby Features of Importance

Figure 4.1 shows that there are no designated sites within 1km. No impact is anticipated.

6.2 Habitats on Site

The development as proposed will result in the loss of barn owl resting habitat and bat roosting habitat.

As the site is not comprised of any habitats of principal importance listed in Section 7 of the Environment (Wales) Act (HMSO, 2016), mitigation will be delivered at a species level.

6.3 Bats

6.3.1 Impacts

A single lesser horseshoe bat was found in the barn. Without consideration this roost will be lost and there is potential for death or damage of individual bats. This could have a high impact on the local population of bats. This would also constitute an offence under the current environmental legislation.

The lesser horseshoe bat is classified as rare in North Wales and the loss of a day roost would impact the favourable conservation status of the species from the site level up to the district level. Although the area is dark and there are plenty of hedgerows there is little opportunity for roosting lesser horseshoe bats.

Determination of conservation significance of roosts was taken from Table 4.2: Modification and disturbance impacts to roosts: simple examples (Reason & Wray, 2023).

The barn has negligible roost potential for hibernating bats.

6.3.2 Mitigation

Phase 2 bat surveys are required and are to be undertaken in the summer months (This is when bats use buildings). These surveys will determine the mitigation for the EPS licence from NRW.

The development must then be conducted under an EPS Mitigation Licence from Natural Resources Wales. This can be applied for once planning permission is granted. The licence works will involve supervised works by an ECoW, timing of the works and the creation of compensation habitat. A rigid method statement outlining a bat conservation plan will need to be followed.



Table 6.1. Timing of works as recommended by the UK Bat Mitigation Guidelines (2023)

Roost type	Months to avoid	Optimum period for carrying out works (some variation between species and weather-dependent)
Maternity	May-August (potentially September)	September to end April
Hibernation (not used for swarming)	November to March	April to end October
Hibernation and swarming site	August to March (key); potentially July until April	April to July
Mating/swarming; not used for hibernation	August to October (key); potentially July until mid-November Also April-early May in at least some species	Mid-November – end March (potentially later, maybe species-specific) Broader restrictions if site also used for hibernation
Non-breeding summer roost	None	No restrictions – assuming bats can be excluded if present in small numbers or otherwise safely managed

EPSL Working Method Statement (Part of bat compensation plan)

1. Construction will need to follow a rigid method statement. It will need to be conducted under a European Protected Species Licence (EPSL)
2. A suitably licensed ecologist will be employed as an Ecological Clerk of Works (ECoW) to oversee works in areas sensitive to bats and provide expert advice.
3. The licence can only be applied for when full planning permission has been granted.
4. A toolbox talk will be provided by the ECoW. The developer and the contractors will be made aware that there is a possibility that bats may be found during works, and will be advised to work in a way to ensure bats are not harmed during work in areas sensitive to bats; particularly around the roof. They will be provided with a simple emergency procedure to follow if bats are found at any stage of the work on site. It will be ensured that the method statement is retained on site at all times.
5. Bat compensation – where possible- will be prepared prior to work commencing. This will include the erection of a bat box on site.
6. A pre-commencement check will be conducted by the ECoW using a strong torch and borescope where appropriate.
7. Bats will always be allowed access to an undisturbed area during works.
8. The ECoW will be present on site when work is being conducted in the area of the bat roost, particularly around the ridges, gables, hips, valleys and edges.
9. Bats will be excluded using one-way gates where appropriate. This will be erected with the assistance of the ECoW.



- a. The one-way exclusion will be left in place for five days before being checked by the ECoW.
10. If a bat is found when the ECoW is not present, work will stop immediately and the ECoW contacted for advice.
 11. The bat can only be handled by the ECoW or authorised person unless it is in immediate danger. The bat must be carefully placed in a well-ventilated lidded box with a small container (i.e. a plastic bottle lid) with water in it. The container must be kept in a quiet and safe place.
 12. Care should be taken to avoid rousing the bat whilst transferring to a suitable location, such as a suitable roost box or alternative roost space that provides a safe, quiet environment with a stable cool temperature and relatively high humidity.
 13. If the bat is underweight or injured it will be cared for by an experienced bat carer until such time that it is strong enough to be released into a suitable alternative replacement roost on site.
 14. The bat compensation will be created following the instructions in the EPS method statement and the client will agree that any bat box erected must stay in place for a minimum of five years post-development.
 15. The removal of the roof will not take place if the temperature has been below 6°C for four consecutive days and nights.
 16. Once the building has been reroofed, bat access will be limited by sealing all doors and windows, thus reducing the potential for bats to re-enter where they are not expected.



Lighting

Lighting needs to be designed to have minimal impact on bats and their commuting and foraging areas. This results in the recommended use of downlights and the horizontal spread of lighting to be kept to a minimum.

Where it is not possible to reduce the horizontal spread of light, a 2700°K to 3000°K LED light bulb is recommended, which will provide a warm white light. This range has the least impact on bats and invertebrates.

1. A lighting scheme will be drawn up in line with best guidance (ILP, 2023).
2. All newly proposed external lighting will be directed away from any vegetated boundary features to retain dark corridors for commuting bats.
3. There will be no direct illumination of any enhancement features erected for bats.
4. All domestic lighting will be orientated towards the ground and controlled by PIR (Passive Infra-red), set on a short timer.



Figure 6.1. Example external down light design



6.3.3 Compensation

As a day roost of lesser horseshoe bats have been recorded in the barn, a bat loft will need to be created. This will need to be large enough to provide space for pre-emergence flights and light sampling. The following specifications will be adhered to when designing the loft:

1. The total volume of the void will be a minimum of 20m³, recommended minimum dimensions are 4m wide, 5m long and 2m high to the peak of the roof.
2. This will be a darkened space with no illumination.
3. The loft space will have a small access hatch, so it can be checked for bat activity but not used for storage.
4. Type 1F bitumen hessian roofing felt (BS747) will be used as lining beneath the slates, so bats cannot come into contact with non-bitumastic modern breathable membranes.
5. Other bat species may use this space, so roost opportunities will be made inside the loft by creating crevices with rough-sawn timber, these will have an entry gap of 15mm.
6. The loft space will be insulated between the floor and ceiling and not under the tiles. This is the best method to keep the area the correct temperature for bats in summer.
7. A hot box will be created in the roof of the building to create alternative temperature regime areas. This will be created with OSB from the bottom purlin.
8. The licence holder will audit the site during the project.
9. A period of monitoring is likely to be required post construction.
10. Bat access will be created which provides a 30cm wide access and 20cm height. A design is shown below.

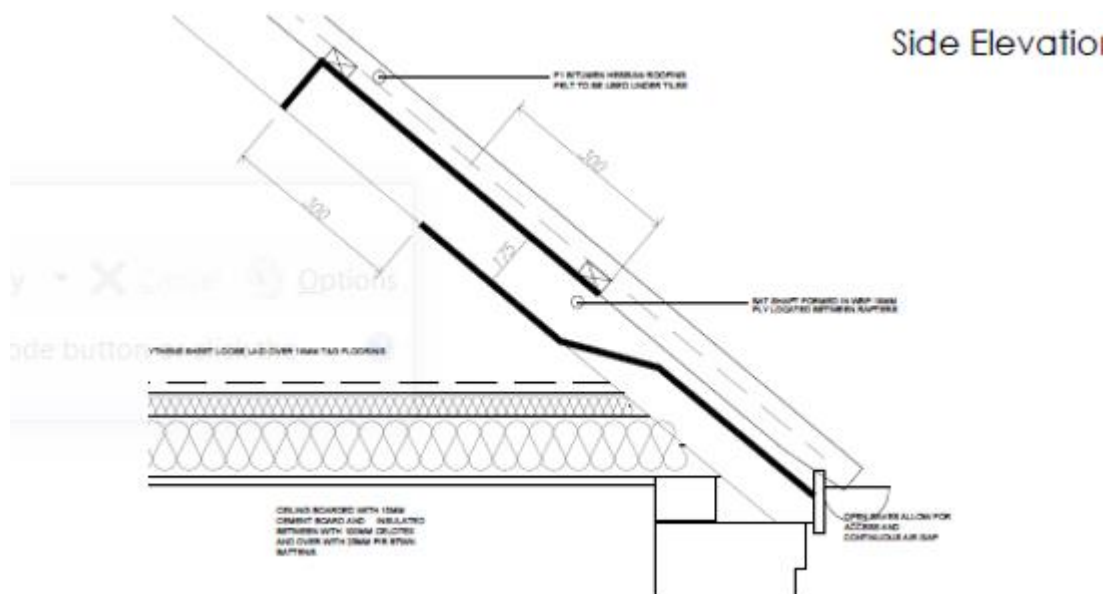


Figure 6.2. Access constructed of lead set in slate roof



6.4 Birds

6.4.1 Impacts

Work at this site will include the sealing of the building and the demolition of the lean-to which could affect nesting birds if commenced during the nesting season.

Although evidence of owl was found in the barn no evidence of nesting was found. Evidence of swallow was found.

6.4.2 Mitigation

1. The developer will be responsible for ensuring no nesting birds will be impacted by the proposed development, either by commencing the work for outside of the nesting season (1st March to 31st August inclusive) or if this is not possible, after a visual inspection within 24hours prior to the development start shows no birds are nesting.
2. Should a nesting bird be found, a 4m buffer will be left around the nest, and no further disturbance conducted until the young have fledged and the nesting bird season has finished, which is March to August inclusive.
3. Once work has commenced on the building and it is confirmed that there are no nesting birds present, the building will be sealed to prevent birds gaining access during works and potentially causing further delay.

6.4.3 Compensation and Enhancements

It is recommended that a range of woodcrete boxes are erected around the site to provide an enhancement for passerine birds, and a selection of the following would be appropriate.

- a. Sparrow Terraces should be erected under the eaves of a building at a minimum height of 3m, in a westerly, northerly or easterly aspect.
- b. Swallow cups should be installed on the exterior of the building at eaves height, ideally beneath a 1m overhang to shelter the cup.
- c. Wren boxes should be installed inside vegetation such as a hedge or shrub, ideally 1-3m from the ground.



Figure 6.3. Bird boxes



Barn Owl

1. A barn owl box will be erected near the barn to provide an enhancement.
2. This can either be an internal nest box on the southern gable end of the building, or a tree or pole mounted nest box facing open countryside.
3. The nest box should be located at least 3m off the floor.
4. The entrance will be kept clear and visible.
5. Details of a suitable barn owl box can be found on the Barn Owl Trust's website – barnowltrust.org.uk



Figure 6.4. Example barn owl box

6.4.4 Monitoring

Failing boxes or enhancements will be replaced at the cost of the developer if deterioration or damage is noted within five years post-development.



7 Concluding Remarks

The survey has focussed on the potential habitats or protected species to be damaged or destroyed as part of this development.

A single lesser horseshoe bat was found in the barn. Without consideration there may be a loss or damage of roosts along with the potential for death or damage of individual bats. This would have a negative impact on the local population of bats. This would also constitute an offence under the current environmental legislation.

The development must be done under an EPS Mitigation Licence from Natural Resources Wales. This can be applied for once planning permission is granted. The licence works will involve supervised works by an ECoW, timing of the works and the creation of bat loft as compensation habitat. A method statement outlining bat compensation will also need to be followed.

Evidence of owl was found in the barn but no evidence of nesting was found. An old swallow nest was also found. The developer will be responsible for ensuring no nesting birds will be impacted by the proposed development, either by commencing the work for outside of the nesting season (1st March to 31st August inclusive) or if this is not possible, after a visual inspection within 24hours prior to the development commencing shows no birds are nesting. A barn owl box will be erected near the site to provide compensation habitat.

The method statements provided in sections 6.3.2 and 6.4.2 of this report will be followed and works will be done at a suitable time of year. Other than those listed above, there are no ecological constraints to the development as currently proposed.



Appendix A – Surveyor Details

Table A.1. Details of surveyors’ experience and licences held

Name	Membership of associations/ experience	Licenses
Logan Maggs BSc(hons)	Senior Consultant Logan has a degree in Conservation and Land Management. He has over 10 years’ experience conducting environmental appraisals and phase 2 surveys for bats and newts in England and Wales.	Holder of survey licenses for bats and newts in England and Wales. <u>England:</u> Bats - 2016-24901-CLS-CLS GCN - 2017-29218-CLS-CLS <u>Wales:</u> Bats – S091096/1
Ben Jones BSc(hons) MSc	Senior Consultant MCIEEM Ben has a degree in Marine and Freshwater biology and a Master’s degree in “Managing the Environment”. He has 8 years’ experience conducting environmental appraisals and phase 2 surveys for bats and newts in England and Wales. As a member of the CIEEM he is bound by professional conduct.	Holder of survey licenses for bats and newts in England and Wales. <u>England:</u> Bats - 2017-29112-CLS-CLS GCN - 2016-25209-CLS-CLS <u>Wales:</u> Bats – S091847/1 GCN – S091242/1
Chloe Sheil MZool (Conservation)	Chloe has a master’s degree in Zoology with Conservation from Bangor University. She has 5 years’ experience assisting with surveys.	Holder of survey licence for bats and newts in England; GCN: 2022-10485-CL08-GCN Bats: 2022-10941-CL17-BAT Listed as an accredited agent on Ben Jones’ licence: NRW bat licence – S091847/1 NRW newt licence – S091242/1



Appendix B – Methodology

Desk Study

Table B.1. Data sources

Organisation/Resource	Information Assessed
Biodiversity Information Service	Protected/Priority Species records (2km)
MAGIC website	International statutory designations (1km) <ul style="list-style-type: none"> • Special Protection areas (SPA) • Special Areas of Conservation (SAC) • RAMSAR sites National statutory designations (1km) <ul style="list-style-type: none"> • Sites of Special Scientific Interest (SSSI) • National Nature Reserves (NNR) EPS Licenses for protected species (2km)

A data search was purchased from BIS on 25th September 2023

A search on Multi Agency Geographic Information for the Countryside (Magic Maps) determined nearby designated areas. The map is presented in Section 4.1.

Field Survey

The level of survey is aimed to identify field signs of or habitats with the potential to support protected species and therefore assist in the determination for detailed phase 2 surveys.

Determination of Ecological Value is based on the general criteria provided by CIEEM (2017).

Table B.2. Criteria of ecological values

Ecological Value	Description and Examples
High	Habitats or features that have high importance for nature conservation, such as statutory designated nature conservation sites of international or national importance or sites maintaining viable populations of species of international or national importance (e.g. Red Data Book species; European protected species).
Medium	Sites designated at a county or district level, e.g. Local Wildlife Site (LWS), ancient woodland site, ecologically 'important' hedgerows or ecological features that are notable within the context of a region, county or district (e.g. a viable area of a Priority Habitat or a site that supports a viable population of a priority species).
Low	Sites of nature conservation value within the context of a parish or neighbourhood, low-grade common habitats, such as arable fields and improved grasslands and sites supporting common, widespread species.



Species Surveys

Bats

Features on site were assessed for potential for bat roosts, foraging and commuting.

An external assessment of all structures on site was undertaken to determine potential roost features (PRF) The potential suitability of the structures assessed was assigned a rating of low to high in accordance with table 4.1 of Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition.

An internal assessment of all structures was undertaken by a suitably licensed surveyor for evidence of roosting bats such as droppings, feeding remains and staining.

Daytime surveys were conducted with the aid of a strong torch. Bat species may leave little evidence of their presence.

Evidence for the presence of bats includes:

- Holes, cracks and rot holes used as roosts, marked by streaks of urine and faeces.
- Smoothed, darkened edges where bats have rubbed and left natural body oils when entering and exiting a space.
- Faeces under a roof access point, a well-used feeding point or a resting spot.
- Feeding signs such as discarded insect wings under a feeding point.
- Lack of cobwebs around eaves, roof spaces, beams or ceilings where routes are kept clear by bats or presence of droppings in a cobweb.
- Presence of roosting or dead bats in or behind any object.

Birds

Searching for evidence of nesting birds, including barn owls, involved looking for:

- Presence of nests
- Collections of droppings and/or feathers
- Highly distinctive droppings or splats under roosting points.
- Presence of owl pellets/feathers
- Listening for bird song
- Recording bird activity



Appendix C – Policy

The following areas of policy and legislation are of relevance to ecology and provide context to the surveys conducted. Findings presented in this report are in line with the following:

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 – as listed in:

- Schedule 2. European protected species of animals

The Wildlife and Countryside Act (1981) – as listed in:

- Schedule 1. Birds protected by special penalties at all times
- Schedule 5. Protected animals

Countryside and Rights of Way Act (2000)

Environment Act (2021) – Part 6 – Nature and Biodiversity

Natural Environment and Rurally Communities (NERC) Act (2006)

Planning Policy Wales 2002, updated Dec 2018

Section 6.4 – Biodiversity and Ecological Networks

The Nature Recovery Plan for Wales – Setting the course for 2020 and beyond (2015)

Environment Act (Wales) (2016)

Section 7

Powys Local Development Plan: Policy DM2 – The Natural Environment



Bats

All bat species are protected under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 which implements the EC Directive 92/43/EEC in the United Kingdom. It is an offence, with certain exceptions, to:

- Deliberately capture or kill any wild animal of a European Protected Species.
- Deliberately disturb any such animal.
- Damage or destroy a breeding site or resting place of such a wild animal.
- Keep (possess), transport, sell or exchange, or offer for sale or exchange, any live or dead wild animal or plant of a European Protected Species, or any part of, or anything derived from such a wild animal or plant.

A person found guilty of an offence is liable on summary conviction to imprisonment for a term not exceeding six months or to an unlimited fine or to both .

Seven bat species are on the UK Biodiversity Action Plan and are listed as Species of Principal Importance under the provisions of the Natural Environment and Rural Communities (NERC) Act 2006. The National Planning Policy Framework (NPPF) states that to minimise impacts on biodiversity and geodiversity, *"planning policies should... promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species populations"*.

To allow a development that might result in an offence, a derogation licence can be sought via the implementation of a European Protected Species Licence. This is provided by Natural Resources Wales.

Work can be conducted under a derogation licence from Natural Resources Wales providing suitable compensation and mitigation is provided and the "three tests" can be met. These are:

Regulation 55(2)(e) states: a licence can be granted for the purposes of "preserving public health or public safety" or other imperative reason of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment.

Regulation 55(9)(a) States: the appropriate authority (Natural Resources Wales) shall not grant a licence unless they are satisfied "that there is no satisfactory alternative"

Regulation 55(9)(b) states that the appropriate authority shall not grant a licence unless they are satisfied "that the action licensed will not be detrimental to the maintenance of the population of the species concerned at favourable conservation status in its natural range."

The method statement in the EPS licence is a legally binding document which outlines the species, context of the colony, method of mitigating and compensating and ongoing habitat management for ensuring favourable conservation status.



Birds

Under Section 1 of the Wildlife and Countryside Act 1981 (as amended), birds, their nests and young are all protected from damage, particularly during the breeding season. The Act allows for fines or prison sentences for every bird, egg or nest destroyed. It makes it an offence to:

- Intentionally kill, injure or take any wild bird.
- Take, damage or destroy the nest of any wild bird whilst it is in use or being built.
- Take damage or destroy the egg of any wild bird.
- To have in one's possession or control any wild bird, dead or alive or egg or any part of a wild bird or egg.

Some bird species are included in the UK and local BAPS and are recognised as species of principal importance for nature conservation in accordance with section 41 of the NERC Act 2006. Such species and their habitats receive protection through the provisions of the NPPF.

Barn Owls

Barn owls are listed on Schedule 1 which gives them special protection.

It is an offence to:

- Intentionally kill, injure or handle any wild barn owl.
- Intentionally take, damage or destroy any wild barn owl nest whilst in use or being 'built'.
- Intentionally take or destroy a wild barn owl egg.
- Have in one's possession or control a wild barn owl (dead or alive) or egg (unless one can show it was obtained legally).
- Intentionally or recklessly disturb any wild barn owl whilst 'building' a nest or whilst in, on, or near a nest containing young.
- Intentionally or recklessly disturb any dependent young of wild barn owls.

It is not an offence to:

- Take a disabled wild barn owl solely for the purpose of tending it until fully recovered and then returning it to the wild.
- Kill, injure, take or disturb barn owls if these were incidental results of a lawful operation and could not reasonably have been avoided.



Appendix D - Bibliography

- Barn Owl Trust, 2012. *Barn Owl Conservation Handbook*. Exeter: Pelagic Publishing.
- BiS, 2023. *Biodiversity Information System for Powys & the Brecon Beacons National Park*. [Online]
Available at: https://www.bis.org.uk/services/data_enquiry
- CIEEM, 2017. *Guidelines for Preliminary Ecological Appraisal, 2nd Edition*. Winchester: Chartered Institute of Ecology and Environmental Management.
- Collins, J. BCT, 2016. *Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition*. London: Bat Conservation Trust.
- HMSO, 1981. *Wildlife and Countryside Act 1981*. London: HMSO.
- HMSO, 2000. *Countryside and Rights of Way Act 2000*. London: HMSO.
- HMSO, 2016. *Environment (Wales) Act 2016*. London: HMSO.
- ILP, 2023. *Guidance Note 08/23 Bats and artificial lighting at night*. Rugby: The Institute of Lighting Professionals.
- Ministry of Housing, Communities and Local Government, 2021. *National Planning Policy Framework 2019*. London: Ministry of Housing, Communities and Local Government.
- Reason, P. F. & Wray, S., 2023. *UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats*. s.l.:Chartered Institute of Ecology and Environmental Management.