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Cae Coch, Golly, Rossett

Ecological Appraisal

Cae Coch
Golly
Rossett
Wrexham
LL12 0AL

Produced by P J Ecological Solutions on behalf of Steffan Davies

July 2025

Version 1

Report by Matthew Whitehead
Reviewed by Paul Roberts

Executive Summary

INTRODUCTION

Instruction

P J Ecological Solutions were commissioned by Mr Steffan Davies to undertake an ecological appraisal of the land and buildings at Cae Coch, Golly, Rossett. The survey was commissioned to inform a planning application for the demolition of the existing dwelling, block-built barn and cowshed, for the conversion and extension of the existing redbrick barn to a replacement dwelling, and for the construction of a new garage building in the place of the existing dwelling.

The Site

The site comprises an historic farmyard characterised by buildings, hardstanding and a small garden area, the boundaries of which are demarcated by various fences, walls and species-poor hedges. The farmyard is surrounded by arable field to the southeast, by poor semi-improved grassland to the southwest, by the garden area of the neighbouring dwelling to the northwest, and by a single-lane single-carriageway to the northeast.

HABITATS

Habitats to be Lost/Modified

The proposed development will require the demolition or modification of each of the existing buildings, of the existing areas of hardstanding and garden, and of the existing boundary walls.

Aside from when used by roosting bats or nesting birds (see Section 4.2), buildings are generally considered habitats of low ecological value, as are areas of hardstanding, garden lawns, and concrete walls. As such, subject to the adoption of suitable reasonable avoidance measures and the delivery of suitable compensatory roosting, nesting and refuge/hibernation opportunities on-site, the loss or modification of these habitats is likely to have an adverse ecological impact of only low local significance.

It is understood that the existing hedgerows are to be retained, unmodified.

PROTECTED SPECIES

Wild Birds

The dwelling to be demolished supports house sparrow nests and the hedges which demarcate the site's northwest boundary are also considered well-suited to the nesting needs of various wild bird species. Therefore, to avoid disturbing or causing harm to nesting birds or their nests during the works, the demolition works, as well as any works to or within 5m of the site boundary hedge, will be undertaken outside of the peak nesting bird season (March to August, inclusive). If, for any reason, it is necessary to undertake such works within this period, then a suitably qualified ecologist will be engaged to undertake a nesting bird check of the building/the affected vegetation immediately prior to the commencement of the works, with the works only to proceed if no active nests are found.

As compensation for the house sparrow nesting sites to be demolished, 4 No. Vivara Pro Build-In House Sparrow Nest Boxes (Double Chamber) will be installed within the fabric of the proposed dwelling. To provide a range of thermal niches, one of the boxes will be installed in a southeast-facing position (per one of the existing nests), and the other three will be installed in a northeast-facing position (per the other existing nest and per best-practice). Each box will be installed close to eaves level, away from any immediate clutter or direct artificial light spill, and out-of-reach of domestic cats or other terrestrial predators.

Bats
The bat emergence survey results indicate that at least one common pipistrelle bat and at least one whiskered/Brandt's bat are day roosting within the dwelling to be demolished.

The proposed works will result in the destruction of the identified roosts and, in the absence of mitigation, have the potential to disturb or cause harm to any bats which are present at the time. A European Protected Species Mitigation License (EPSML) from Natural Resources Wales will therefore be required before site works can commence.

As a requirement of the license, the works will need to be undertaken in accordance with pre-defined reasonable avoidance measures and suitable compensatory roosting opportunities will need to be provided for those to be lost. The reasonable avoidance measures and mitigation and compensation scheme detailed within the associated document *Cae Coch, Protected Species Survey Report (Bats)* is considered suitable for the project.

The survey results indicate that neither the redbrick barn, the block-built barn, nor the cowshed currently support roosting bats. The surveys were not affected by any material limitations.

Common Herpetofauna (Great Crested Newt)
The presence/absence survey have confirmed that great crested newts are present within the pond within the neighbouring garden area, ~40m north site boundary. Therefore, given the proximity of this pond and the size of the proposed redevelopment works, it is considered likely that, in the absence of mitigation, the development of the site would result in an offence being committed. A European Protected Species Mitigation License will therefore be required before site works can commence.

A method statement, bespoke to the project, will need to be submitted in support of the application for a license. This will need to include suitable reasonable avoidance measures which will be adopted to mitigate the risk of disturbance or harm to great crested newts during or following the works, as well as how compensatory habitat is to be provided for any lost. The reasonable avoidance measures and mitigation and compensation measures detailed within the associated document *Cae Coch, Protected Species Survey Report (Great Crested Newts)* are considered a suitable basis for such a scheme.

Badgers and Other Priority Wildlife
To ensure that any badgers or other wildlife which stray upon the site do not become trapped in any trenches, culverts or workings, any created in the course of the works will be fitted with sloping escape ramps, which may be achieved by edge profiling of trenches/excavations or by placing rough-sawn planks into them at the end of each working day. Chemicals will be kept secure, and the site will be made safe at the end of each working day. Should any badgers or other protected species be encountered during the works, works will immediately cease, and a suitable qualified ecologist will be contacted for advice.

The site is considered wholly unsuited to the needs of any arboreal mammals or riparian mammals and no invasive non-native species were identified anywhere upon or immediate to the site.

GREEN INFRASTRUCTURE
Biodiversity Enhancement Provisions
To ensure that the proposed development results in an overall net benefit for biodiversity, it has been agreed that (i) both an additional nest box and a suitable bat box will be integrated into the construction of the proposed building, (ii) that a new pond, designed and managed for biodiversity benefit, will be created on site, (iii) that a large (standard or heavy standard) willow tree is to be planted next to the proposed pond, (iv) that a small orchard of six native fruiting

tree species is to be planted on site, and (v) that a small area of the site is to be dedicated to and managed to promote the growth of wildflowers.

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1 Introduction

P J Ecological Solutions were commissioned by Mr Steffan Davies to undertake an ecological appraisal of the land and buildings at Cae Coch, Golly, Rossett, Wrexham, LL12 0AL (Grid Reference: SJ33615843; hereafter referred to as 'the site'). The survey was commissioned to inform a planning application for the demolition of the existing dwelling, block-built barn and cowshed, for the conversion and extension of the existing redbrick barn to a replacement dwelling, and for the construction of a new garage building in the place of the existing dwelling.

The site comprises a former farmyard within the rural community of Golly, ~2.8km northeast of Rossett (see Figure 1.1). The area surrounding the site is characterised by agricultural land and features a good network of intact boundary hedgerows with trees and several small waterways, both of which will provide good local habitat connectivity. Several broadleaf corridors and several bodies of standing water extend to within 250m of the site.

A detailed desk study of the surrounding area has been undertaken, in addition to an extended Phase 1 survey of the site. Preliminary roost assessments of each of the buildings on site, and bat emergence surveys as necessary, and habitat suitability index assessments of each of the ponds within 250m of the site, and great crested newt presence/absence surveys as necessary, have also been undertaken. The aim of these efforts/this appraisal is to:

- Detail the habitat types within and immediately adjacent to the application area.
- Identify both habitat and species constraints pertinent to the development proposals.
- Detail EPS licensing requirements, reasonable avoidance measures, mitigation, and compensation measures where necessary.
- Identify opportunities for the proposed development to provide enhancements and add to the biodiversity resource within the site.

This is in accordance with TAN 5 (Technical Advice Note 5), Nature Conservation and Planning, to enable an assessment of impacts and mitigation to negate impact as a consideration, material to the determination of planning requirements.

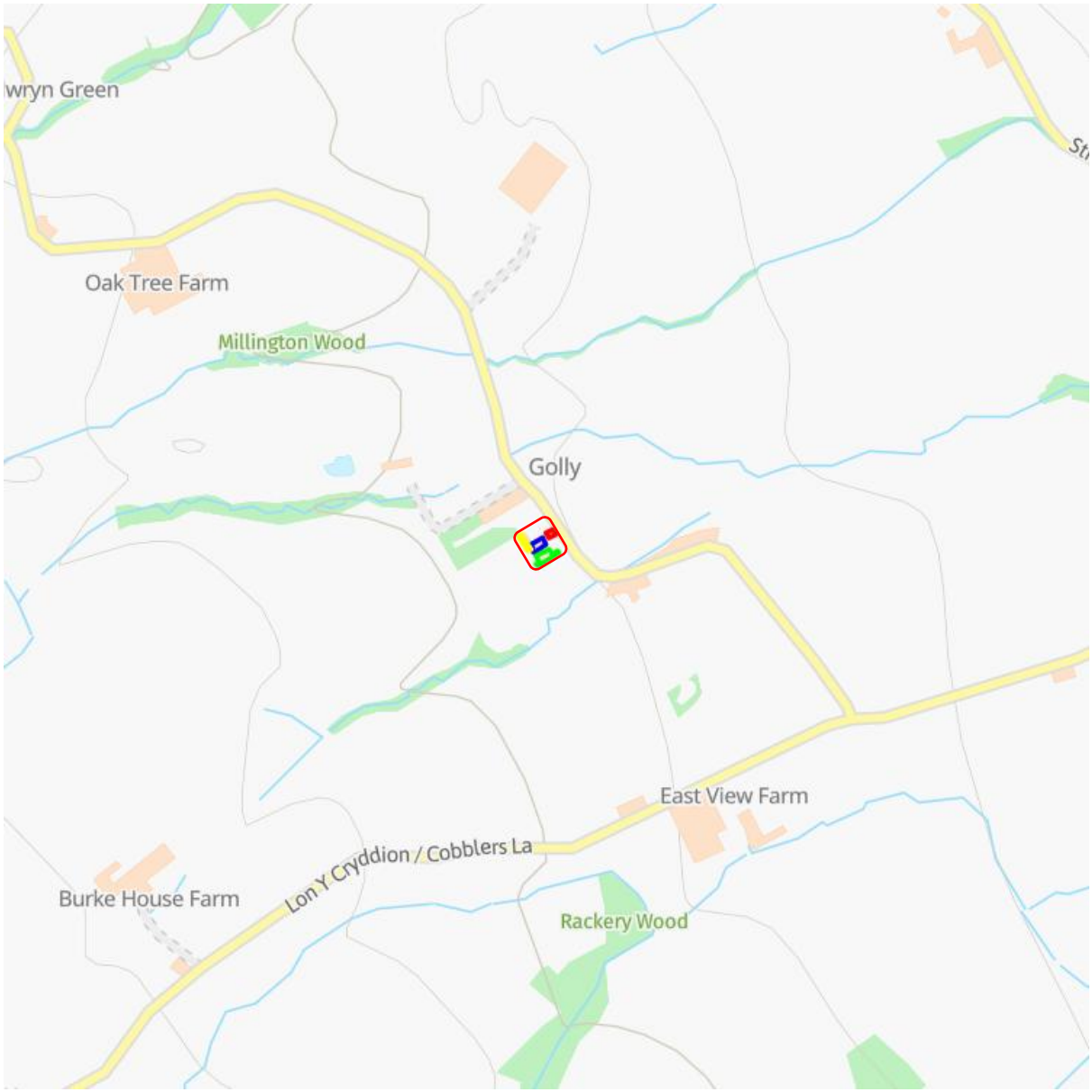


Figure 1.1: A 1:10,000 map view showing the site location and the surrounding habitats.

2 Method

2.1 Desk Study

2.1.1 Statutory and Non-Statutory Designated Sites

A desk-based study was undertaken to identify nearby habitats of importance and features providing local habitat connectivity, and to identify the presence of statutory and non-statutory designated sites within the vicinity of the site. These include:

- ***International recognised statutory designations:*** Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsar Sites.

- ***National recognised statutory designations:*** Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs)

- ***Local level non-statutory designations:*** County Wildlife Sites (CWSs), Local Nature Reserves (LNRs), Sites of Importance for Nature Conservation (SINCs), North Wales Wildlife Trust Reserves (NWWT reserves), and Royal Society for the Protection of Birds Reserves (RSPB reserves)

A 1km-radius search for statutory and non-statutory sites was undertaken using the Multi-Agency Geographic Information for the Countryside (MAGIC) and Natural Resources Wales (NRW) websites' interactive mapping applications, and a note was made of all such sites identified within the search area. A search for non-statutory sites was undertaken with the local environmental records centre, COFNOD.

2.1.2 Species Records Pertinent to the Assessment

The desk-based study was extended to identify nearby records of protected species or species of principal importance, or of invasive non-native species. These include:

- ***European Protected Species:*** Species listed under Schedule II and V of the *Conservation of Habitats and Species Regulations 2017*.

- ***Specially Protected Bird, Animal and Plant Species:*** Species listed under Schedules I, V and VII of the *Wildlife and Countryside Act 1981 (as amended).*

- ***Species of Principal Importance:*** Species listed under Section VII of the *Environment (Wales) Act 2016*.

- ***Badgers:*** Badgers are protected under the *Protection of Badgers Act 1992*

- ***Invasive Non-Native Species:*** Species listed within the *Invasive Alien Species (Enforcement and Permitting) Order 2019* or within Schedule IX of the *Wildlife and Countryside Act 1981* (as amended).

A 1km-radius search for species records was undertaken with the local environmental records centre, COFNOD, and a note was made of all protected species and species of principal importance records retrieved. Further records were also searched for using the interactive mapping applications available on the MAGIC, DataMapWales and National Biodiversity Network (NBN) websites. *(COFNOD search undertaken on the 22nd of April 2025; NBN Atlas occurrence download at https://nbnatlas.org accessed on the 03rd of May 2025).*

2.2 Extended Phase 1 Survey

2.2.1 Phase 1 Survey

The extended Phase 1 survey of the site was undertaken on the 08th of April 2025 by Paul Roberts UCert and Matthew Whitehead BSc (Hons) MRSB, both of whom are experienced ecological consultants who are familiar with the local area. Habitats were assessed by using Phase 1 habitat survey techniques, according to the methodology outlined in the *'Handbook for Phase 1 habitat survey'* (JNCC, 2010), which is a system for environmental audit widely used within the environmental consultancy field.

The survey was undertaken in clear and dry conditions, during a time of year which is within the active season for most British wildlife and annual plant species. As such, the appraisal was not considered to have been limited by any seasonal or climatic factors.

2.2.2 Species Surveys

A methodical search was undertaken for the following species, or field signs or other evidence thereof. In addition, the site and its immediate surrounds were assessed for their potential to support the following species, or to provide other ecological services to the following species:

- ***Wild Birds***: The site and its surrounds were searched for active or historical wild bird nests or evidence thereof. The site and its surrounds were also assessed for their potential to provide nesting opportunities for wild birds, or to provide foraging utility or habitat connectivity for wild birds. The survey was undertaken in accordance with the methods described within *'Common Standards Monitoring Guidance for Birds'* (Baker and Douse, 2004).

- ***Bats*:** The site and its surrounds were searched for structures or trees which could provide roosting opportunities for bats, and the habitats upon and surrounding the site were also assessed for their capacity to provide foraging opportunities for local bat species, and to provide habitat connectivity between nearby roosts and known foraging grounds. The survey was undertaken in accordance with the methodology prescribed within '*Bat Surveys for Professional Ecologists'* (BCT, 2023).

- ***Badgers*:** The site and its surrounds were searched for field signs indicative of badger (*Meles meles*) activity, such as setts, bedding material, latrines, guard hairs, scrapings produced during foraging behaviour, paths and paw prints. The site and its surround were also assessed for their potential to support badgers, or to provide foraging utility or habitat connectivity for badgers. The survey was undertaken in accordance with the methods described within *'Surveying Badgers'* (Harris, Cresswell and Jefferies, 1989).

- ***Arboreal Mammals (Hazel Dormouse, Red Squirrel and Pine Marten):*** The site and its surrounds were searched for field signs indicative of dormouse (*Muscardinus avellanarius*), red squirrel (*Sciurus vulgaris*) or pine marten (*Martes martes*), such as refuges or feeding remains (dormouse) or scat (pine marten), and for habitats suitable for the species, such as woodland/suitable hedges with a good under-storey/shrub layer and a range of food plant species, such as oak, hazel, bramble, honeysuckle, bilberry and rowan. The survey was undertaken in accordance with the methods described within '*The Dormouse Conservation Handbook, [2nd edn.]'* (Bright, Morris and Mitchell-Jones, 2006) and considering the habitat requirements outlined in *'Red Squirrel Conservation'* (Pepper and Patterson, 1998) and *'Conserving the Red Squirrel*' (Gurnell and Pepper, 1991).

- ***Riparian Mammals (Otter and Water Vole):*** The site and its surrounds were searched for field signs or habitats characteristic of otter (*Lutra lutra*) or water vole (*Arvicola amphibius*). The survey was based on the methods described within *'The Water Vole Conservation Handbook*' (Strachen, Moorhouse and Gelling, 2011) and *Essex Otter Survey, 2009-2010* (Darren Tansley, 2011).

- ***Common Herpetofauna (Reptiles and Amphibians):*** The site and its surround were assessed for their potential to support reptiles or amphibians. Key aspects considered included the habitats present upon/surrounding the site, the extent of the site, site aspect, connectivity and historic content. The survey was based on the methods described within *'The Herpetofauna Workers' Manual'* (Gent and Gibson, 2003).

- **Other Priority Wildlife:** A search for other species of principal importance (species listed under Section 7 of the *Environment [Wales] Act 2016*) suited to the habitats within or surrounding the site, was undertaken based on the methods described in *UK BAP Mammals: Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation* (Birks *et al*, 2012).

- ***Invasive Non-native Species (INNS):*** A careful search was undertaken for floral species listed within the *Invasive Alien Species (Enforcement and Permitting) Order 2019* or within Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended).

3 Results

3.1 Desk Study

3.1.1 Statutory and Non-Statutory Designated Sites

A review of the information retrieved during the desk study identified no statutory designated sites within 1km of the site (see Figure 3.1). The Millington Wood and Rackery Wood LWSs were identified as extending to ~350m northwest of the site and ~460m south of the site, respectively; however, given the habitat types for which these sites are notified, and given the nature of the proposals and size of the project, no ecological impacts are anticipated upon either of these because of the proposed development.

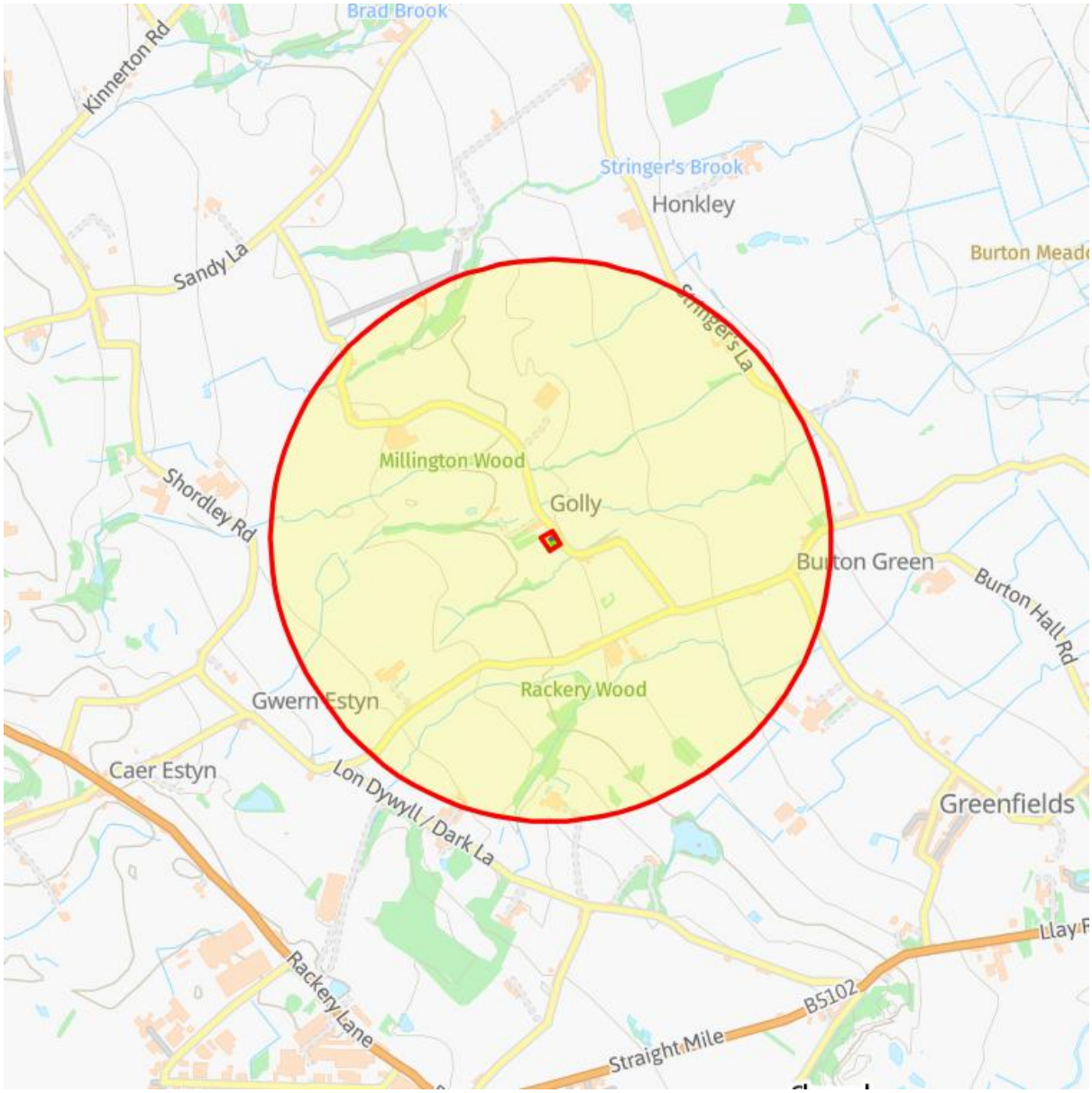


Figure 3.1: A 1:25,000 map view of the site relative to local designated sites.

3.1.2 Species Records and Habitats Pertinent to the Assessment

The data search undertaken with COFNOD returned a total of 321 species records, including records of badger (*Meles meles*), brown hare (*Lepus europaeus*), common pipistrelle bat (*Pipistrellus pipistrellus*), brown long-eared bat (*Plecotus auritus*), common noctule bat (*Nyctalus noctula*), great crested newt (*Triturus cristatus*), barn owl (*Tyto alba*), black-headed gull (*Chroicocephalus ridibundus*), brambling (*Fringilla montifringilla*), bullfinch (*Pyrrhula pyrrhula*) cuckoo (*Cuculus canorus*), curlew (*Numenius arquata*), dunnock (*Prunella modularis*), fieldfare (*Turdus pilaris*), green sandpiper (*Tringa ochropus*), herring gull (*Larus argentatus*), hobby (*Falco subbuteo*), house sparrow (*Passer domesticus*), kestrel (*Falco tinnunculus*), lapwing (*Vanellus vanellus*), lesser redpoll (*Acanthis cabaret*), lesser spotted woodpecker (*Dryobates minor*), redwing (*Turdus iliacus*), skylark (*Alauda arvensis*), snipe (*Gallinago gallinago*), song thrush (*Turdus philomelos*), spotted flycatcher (*Muscicapa striata*), starling (*Sturnus vulgaris*), tree sparrow (*Passer montanus*), and yellowhammer (*Emberiza citrinella*).

In addition, records were retrieved for the invasive non-native species grey squirrel (*Sciurus carolinensis*), Canada goose (*Branta canadensis*), Himalayan balsam (*Impatiens glandulifera*), Himalayan cotoneaster (*Cotoneaster simonsii*), Japanese knotweed (*Fallopia japonica*), montbretia (*Crocosmia x crocosmiiflora*), rhododendron (*Rhododendron ponticum*), and variegated yellow archangel (*Lamiastrum geleobdolon subsp. Argentatum*).

3.2 Extended Phase 1 Survey

3.2.1 Phase 1 Survey

The site comprises an historic farmyard characterised by buildings (J.3.6), hardstanding (J.4) and a small garden area (J.1.5), the boundaries of which are demarcated by various fences (J.2.4), walls (J.2.5) and species-poor hedges (J.2.1.2). The farmyard is surrounded by arable field (J.1.1) to the southeast, by poor semi-improved grassland (B.6) to the southwest, by the garden area (J.1.5) of the neighbouring dwelling to the northwest, and by a single-lane single-carriageway (J.4) to the northeast.

The extent and relative position of each of the above habitats and features is shown in Figure 3.2, below. Further detail of each of the above habitats and features is provided in Table 3.1, below. Photographs of the above habitats and features are provided in Appendix 1.

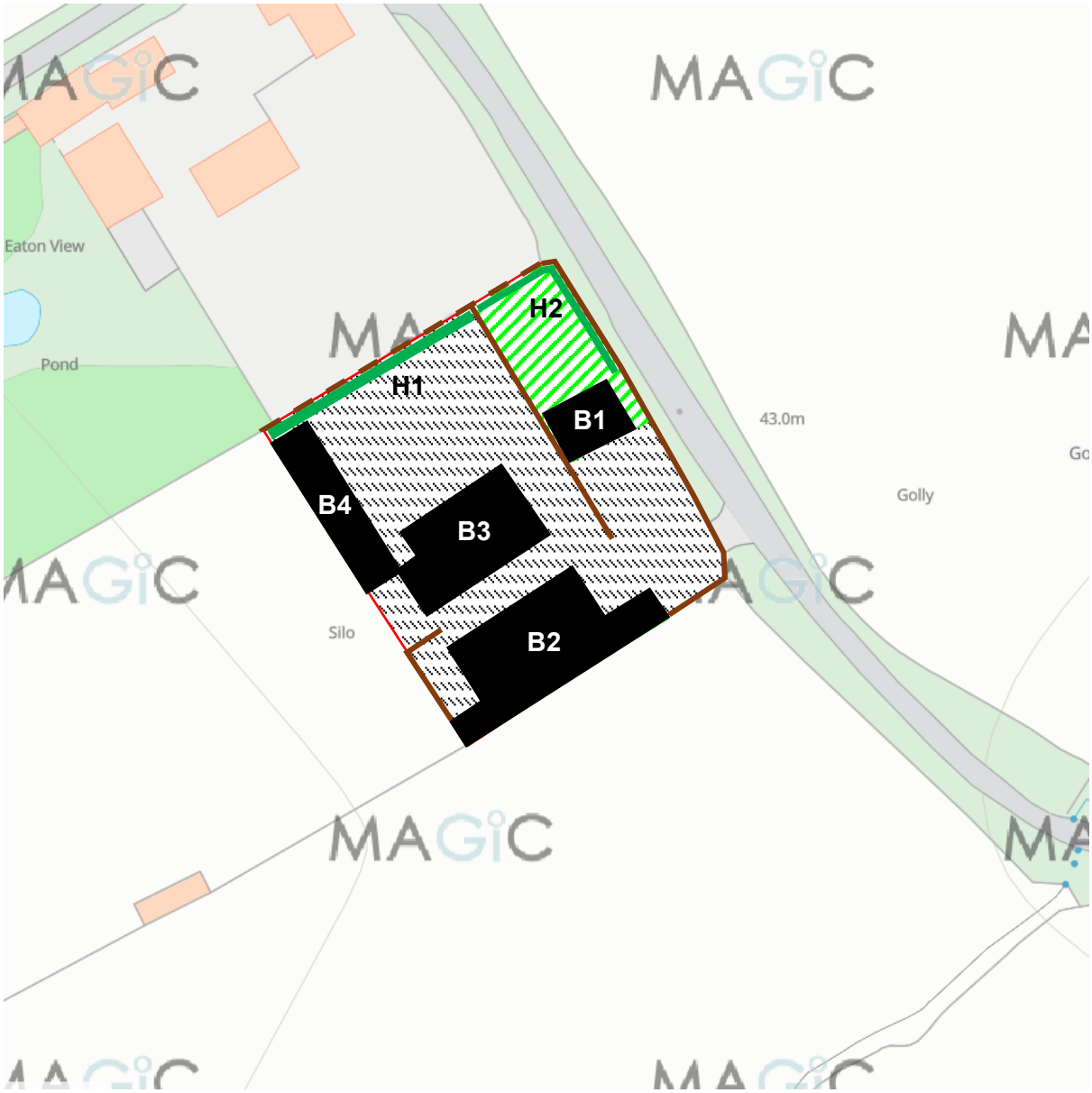


Figure 3.2: A 1:1,000 Phase 1 map of the site. The habitats within or immediate to the site have been illustrated according to the key in Table 3.2. The development area is shown in red.

Table 3.1: Summary of the habitats present within or immediate to the site.

Key	Habitat description and extent
	Buildings (B.3.6): The buildings which together form the farmyard. B1 is a two-storey dwelling. B2 is a single-storey redbrick barn. B3 is a two-storey block-built barn. B4 is a single-storey cowshed. A detailed description of each of the buildings can be found within the associated document *Cae Coch, Protected Species Survey Report (Bats).*
	Bare Ground (J.4): The hardstanding upon which the buildings are sited. Well maintained.
	Gardens (J.1.5): The garden area immediately to the northwest of B1. A simple lawn area apparently originally sown with a typical lawn mix of grass species, it is now dominated by perennial rye (*Lolium perenne*). Herbaceous species present within the sward are few but typical for such habitat and include creeping buttercup (*Ranunculus repens*), common daisy (*Bellis perennis*), shepherd's purse (*Capsella*

	bursa-pastoris), red deadnettle (*Lamium purpureum*), white clover (*Trifolium repens*), and dandelion (*Taraxacum officinale agg.*).
	**Intact hedge – species-poor (J.2.1.2):** The species-poor hedges which demarcate the site's northwest boundary. Unmanaged but almost completely lacking in understory. H1 comprises a mixture of hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), rose (*Rosa sp.*), elder (*Sambucus nigra*), bramble (*Rubus fruticosus agg.*) and greater periwinkle (*Vinca major*). H2 comprises a mixture of forsythia (*Forsythia sp.*), spirea (*Spirea sp.*), holly (*Ilex aquifolium*) and elder.
	**Wall (J.2.5):** The concrete walls which demarcate the site's northeast and southeast boundaries.
	**Fence (J.2.4):** The post-and-wire stockproof fence which demarcates the site's northwest boundary.

3.2.2 Species Surveys

A methodical search was undertaken for the following species, or field signs or other evidence thereof. In addition, the site and its immediate surrounds were assessed for their potential to support the following species, or to provide other ecological services to the following species:

- ***Wild Birds:*** The dwelling (B1) supports two house sparrow nests; further, whilst no house martin (*Delichon urbicum*) nests are present, there is evidence that this species previously nested below the building's eaves. No nests or evidence of previous nesting was found during the inspection of the other buildings on site (B2, B3 and B4); however, they are considered well-suited to the nesting needs of various wild bird species. The hedges which demarcate the site's northwest boundary are also considered well-suited to the nesting needs of various wild bird species and will provide a source of direct and indirect forage suited to a variety of wild bird species.

- ***Bats:*** Preliminary roost assessments have been undertaken of each of the buildings on-site. The dwelling was categorised as having high potential to support roosting bats, the redbrick barn was categorised as having moderate potential to support roosting bats, and the block-built barn was categorised as having low potential to support roosting bats, and the cowshed was categorised as having negligible potential to support roosting bats.

  Accordingly, three bat emergence surveys of the dwelling, two bat emergence surveys of the redbrick barn, and one bat emergence survey of the block-built barn have been undertaken. The results of these surveys identified that the dwelling is being used as a day roost by at least one common pipistrelle bat and at least one whiskered/Brandt's bat (*Myotis mystacinus/Brandtii*).

  A detailed description of each of the buildings, and the full details and results of each of the bat emergence surveys undertaken, can be found within the associated document *Cae Coch, Protected Species Survey Report (Bats)*.

- ***Badger:*** No evidence of badgers was found during the survey of the site or its immediate surrounds. [redacted] As such, the local presence of the species should be assumed.

- ***Arboreal Mammals (Hazel Dormouse, Red Squirrel and Pine Marten):*** No records of any arboreal mammal species were retrieved during the desk study and the habitats within

and immediate to the site are considered wholly unsuitable for any arboreal mammal species. As such, the absence of such species from the site and its immediate surrounds can be assumed.

- ***Riparian Mammals (Otter and Water Vole):*** No records of any riparian mammal species were retrieved during the desk study and the habitats within and immediate to the site are considered wholly unsuitable for any riparian mammal species. As such, the absence of such species from the site and its immediate surrounds can be assumed.

- ***Common Herpetofauna (Reptiles and Amphibians):*** Local records of great crested newt were retrieved during the desk study (c. 1988; ~369m from the site boundary) and there are two ponds within 250m of the site boundary, one of which was assessed as having excellent pond suitability for great crested newts.

  Accordingly, a total of six presence/absence surveys of the pond have been undertaken, which identified that it supports a small great crested newt population.

  A detailed description of both ponds, and the detail and results of each presence/absence survey undertaken, can be found within the associated document *Cae Coch, Protected Species Survey Report (Great Crested Newts)*.

  No records of any reptile species were retrieved during the desk study and the habitats on-site are considered poorly suited to the needs of such species.

- **Other Priority Wildlife:** No evidence of any other priority wildlife was found during the survey of the site and its immediate surrounds; however, local records of brown hare were retrieved during the desk stud and the habitats surrounding the site are considered well-suited to the needs of the species, as well as polecat and hedgehog. As such, the absence of such species from the surrounding area should not be assumed in the absence of further survey work.

- ***Invasive Non-native Species (INNS):*** Local records of several non-native invasive species were retrieved during the desk study; however, no such species were identified during the survey of the site or its immediate surrounds.

4 Evaluation and Recommendations

4.1 Habitats

The proposed development will require the demolition or modification of each of the existing buildings, of the existing areas of hardstanding and garden, and of the existing boundary walls.

Aside from when used by roosting bats or nesting birds (see Section 4.2), buildings are generally considered habitats of low ecological value, as are areas of hardstanding, garden lawns, and concrete walls. As such, subject to the adoption of suitable reasonable avoidance measures and the delivery of suitable compensatory roosting, nesting and refuge/hibernation opportunities on-site, the loss or modification of these habitats is likely to have an adverse ecological impact of only low local significance.

It is understood that the existing hedgerows are to be retained, unmodified.

4.2 Protected Species

4.2.1 Wild Birds

To avoid disturbing or causing harm to nesting birds or their nests during the works, the demolition works, as well as any works to or within 5m of the site boundary hedge, will be undertaken outside of the peak nesting bird season (March to August, inclusive). If, for any reason, it is necessary to undertake such works within this period, then a suitably qualified ecologist will be engaged to undertake a nesting bird check of the building/the affected vegetation immediately prior to the commencement of the works, with the works only to proceed if no active nests are found. Should any nests be found during the inspection, or during any subsequent or other works, all works will be required to cease and a 5m exclusion area will be established around the identified nest, within which no works will be undertaken until it has been established that all the chicks have fledged.

As compensation for the house sparrow nesting sites to be demolished, 4 No. Vivara Pro Build-In House Sparrow Nest Boxes (Double Chamber) will be installed within the fabric of the proposed dwelling. To provide a range of thermal niches, one of the boxes will be installed in a southeast-facing position (per one of the existing nests), and the other three will be installed in a northeast-facing position (per the other existing nest and per best-practice). Each box will be installed close to eaves level, away from any immediate clutter or direct artificial light spill, and out-of-reach of domestic cats or other terrestrial predators.

4.2.2 Bats

The bat emergence survey results indicate that at least one common pipistrelle bat and at least one whiskered/Brandt's bat are day roosting within the dwelling to be demolished. The survey results also indicate that neither the redbrick barn, the block-built barn, nor the cowshed currently support roosting bats. The surveys were not affected by any material limitations.

The proposed works will result in the destruction of the identified roosts and, in the absence of mitigation, have the potential to disturb or cause harm to any bats which are present at the time. A European Protected Species Mitigation License (EPSML) from Natural Resources Wales will therefore be required before site works can commence.

As a requirement of the license, the works will need to be undertaken in accordance with pre-defined reasonable avoidance measures and suitable compensatory roosting opportunities will need to be provided for those to be lost. The reasonable avoidance measures and mitigation and compensation scheme detailed within the associated document *Cae Coch, Protected Species Survey Report (Bats)* is considered suitable for the project.

4.2.3 Common Herpetofauna (Great Crested Newt)

The presence/absence survey have confirmed that great crested newts are present within the pond within the neighbouring garden area, ~40m north site boundary. Therefore, given the proximity of this pond and the size of the proposed redevelopment works, it is considered likely that, in the absence of mitigation, the development of the site would result in an offence being committed. A European Protected Species Mitigation License will therefore be required before site works can commence.

A method statement, bespoke to the project, will need to be submitted in support of the application for a license. This will need to include suitable reasonable avoidance measures which will be adopted to mitigate the risk of disturbance or harm to great crested newts during or following the works, as well as how compensatory habitat is to be provided for any lost. The reasonable avoidance measures and mitigation and compensation measures detailed within the associated document *Cae Coch, Protected Species Survey Report (Great Crested Newts)* are considered a suitable basis for such a scheme.

4.2.4 Badgers and Other Priority Wildlife

To ensure that any badgers or other wildlife which stray upon the site do not become trapped in any trenches, culverts or workings, any created in the course of the works will be fitted with sloping escape ramps, which may be achieved by edge profiling of trenches/excavations or by placing rough-sawn planks into them at the end of each working day. Chemicals will be kept secure, and the site will be made safe at the end of each working day. Should any badgers or other protected species be encountered during the works, works will immediately cease, and a suitable qualified ecologist will be contacted for advice.

N.B: The site is considered wholly unsuited to the needs of any arboreal mammals or riparian mammals and no invasive non-native species were identified anywhere upon or immediate to the site.

Appendix 1: Photographs



Figure A1.1: The dwelling (B1).



Figure A1.2: The redbrick barn (B2).



Figure A1.3: The block-built barn (B3).



Figure A1.4: The cowshed (B4).



Figure A1.5: The hardstanding and various concrete and block walls around the site.



Figure A1.6: The lawn area.



Figure A1.7: The species-poor northeast boundary hedge (H1).



Figure A1.7: The species-poor garden hedge (H2).

Appendix 2: Green Infrastructure Statement

The site comprises an historic farmyard characterised by buildings, hardstanding and a small area of garden lawn, the boundaries of which are demarcated by various fences, walls and species-poor hedges. The proposed development will require the demolition or modification of each of the existing buildings, of the existing areas of hardstanding and garden, and of the existing boundary walls. It is understood that the existing hedgerows are to be retained, unmodified.

It is understood that the dwelling to be demolished supports day roosts for individual common pipistrelle and whiskered/Brandt's bats, as well as several house sparrow nests, and that a pond ~40m north of the site boundary supports small numbers of great crested newt. However, as detailed in Section 5 of this report and in the associated documents *Cae Coch, Protected Species Survey Report (Bats)* and *Cae Coch, Protected Species Survey Report (Great Crested Newts)*, suitable reasonable avoidance measures are to be adopted to mitigate the risk of harm to bats, nesting birds and great crested newts, and suitable compensatory roosting, nesting and refuge/hibernation opportunities are to be provided on-site (*N.B: Further reasonable avoidance measures will also be adopted to mitigate the risk of harm to and badgers or other wildlife which may stray upon the site during the works)*.

Aside from their use by roosting bats or nesting birds, buildings are generally considered habitats of low ecological value, as are areas of hardstanding, garden lawns, and concrete walls. As such, subject to the adoption of suitable reasonable avoidance measures and the delivery of suitable compensatory roosting, nesting and refuge/hibernation opportunities on-site, the loss or modification of these habitats is likely to have an adverse ecological impact of only low local significance.

However, to ensure that the proposed development results in an overall net benefit for biodiversity, it has been agreed that (i) both an additional nest box and a suitable bat box will be integrated into the construction of the proposed building, (ii) that a new pond, designed and managed for biodiversity benefit, will be created on site, (iii) that a large (standard or heavy standard) willow (*Salix sp.*) tree is to be planted next to the proposed pond, (iv) that a small orchard of six native fruiting tree species is to be planted on site, and (v) that a small area of the site is to be dedicated to and managed to promote the growth of wildflowers.

As such, subject to the adoption of suitable reasonable avoidance measures and the delivery of suitable compensatory roosting, nesting and refuge/hibernation opportunities on-site, the proposed development is considered likely to result in a clear biodiversity net benefit/a net gain in local green infrastructure.

The 'stepwise approach' should be adopted throughout the design stage of all new developments in Wales. This means that the loss of existing green infrastructure should be avoided whenever possible, and when it is not possible to avoid the loss of or damage to the existing green infrastructure entirely, the extent of the loss or damage should be minimised to the greatest extent possible. When a proposed development poses a risk of harm to green infrastructure, protected habitats or habitats of principal importance, or protected species or species of principle importance, suitable mitigation should be incorporated into the proposed scheme of works to safeguard that green infrastructure/those habitats and species to the greatest extent possible. Finally, if the loss of green infrastructure cannot be avoided, minimised or mitigated for, suitable on-site compensation should be incorporated into the design of the development.