PRLIMINARY ECOLOGICAL APPRAISAL
OF
THE OLD BARN, COED DERWEN, ERBISTOCK, WREXHAM

2024

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ECOLOGY SERVICES

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PHASE 1 HABITAT MAP

1.0 INTRODUCTION

1.1 Andy Harmer Limited was commissioned in 2024 by Mr Michael Evans to undertake a Preliminary Ecological Appraisal (PEA) of land at The Old Barn, Coed Derwen, Erbistock, hereafter referred to as the 'site'.

1.2 The site is located off the A528, 6km east of Wrexham (O.S grid reference SJ357417 – see Figure 1). The site currently comprises a number of dilapidated agricultural structures, gardens and disused land. It sits within a pastoral landscape, close to the River Dee. The site is surrounded by habitats such as ponds, woodland and pasture, with hedgerows and tree belts. Many of the stream and river corridors in the vicinity are flanked with deciduous woodland.

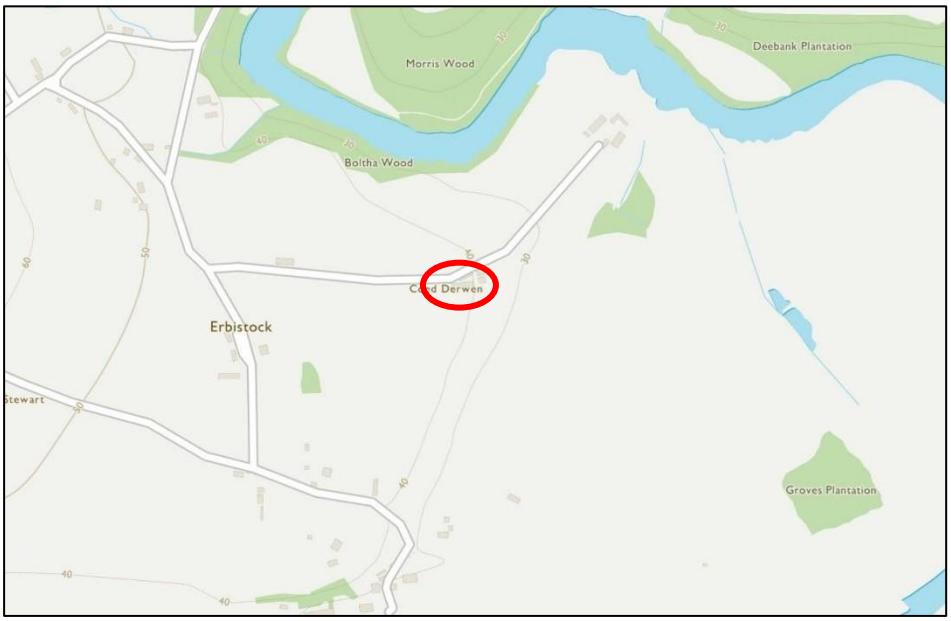


Figure 1 showing the location of the site

1.3 The aims of the survey were to:

- Describe and map the habitats present on the site
- Assess the potential for protected species and invasive species to be present on the site or just outside the immediate site boundary
- Identify where further survey may be necessary.

2.0 METHODOLOGY

2.1 An Extended Phase 1 Habitat survey/PEA was undertaken to JNCC and UK Habs standards. The entire site was walked, along with some of the adjacent habitats, and each habitat was mapped. Species lists were taken at locations of botanical interest. All botanical nomenclature follows Stace, C. A., 2019. *New Flora of the British Isles,* 4th Ed. A Phase 1 habitat map was produced showing habitat boundaries.

2.2 During the survey, the habitats were assessed for their potential to support protected species. Any evidence found of potential or definite protected species activity was mapped. This included, but was not limited to, searching for evidence of Badger activity, assessing any trees or buildings on site for their potential to support bats and Barn Owl, and assessing any waterbodies on site for their potential to support Great Crested Newt.

2.3 The site was also surveyed for invasive, non-native plant species such as Japanese Knotweed and Giant Hogweed.

2.4 Andy Harmer, Principal Ecologist, and Sam Harmer, Senior Ecologist, undertook the survey on 3rd May 2024. Andy Harmer has over twenty years of experience of habitat and protected species surveys and holds protected species licences. Sam Harmer has been undertaking protected species surveys for many years. The entire site could be surveyed. There were no constraints to the survey.

2.5 An Extended Phase 1 Habitat Survey was undertaken at the site by Andy Harmer Limited in 2021, which included most of the current application site. Where relevant results were gathered in 2021, these are discussed within this report.

3.0 RESULTS OF THE HABITAT SURVEY

3.1 The Phase 1 Habitat Map can be found at the back of the report. The habitats are described below.

Amenity Grassland

3.2 Amenity grassland occurs south of the long barn on site (see Photograph 1). This was previously used and managed as a garden but has become unmanaged fairly recently. The sward is species-poor and comprises Perennial Rye-grass *Lolium perenne*, Yorkshire Fog *Holcus lanatus*, Dandelion *Taraxacum officinale* agg. and Annual Meadow-grass *Poa annua* and Daisy *Bellis perennis.* Tree removal has taken place.



Photograph 1: showing amenity grassland

Neutral Grassland

3.3 Neutral, rank grassland now covers the area that was once the bare ground of the farmyard and occurs at the far eastern end of the site. This habitat includes Cock's-foot *Dactylis glomerata*, Yorkshire Fog, Meadow Foxtail *Alopecurus pratensis*, Creeping Bent *Agrostis stolonifera*, Broad-leaved Dock *Rumex obtusifolius* and Perennial Rye-grass *Lolium perenne* (see Photograph 2).



Photograph 2: showing neutral grassland

3.4 **Bare Ground/Hardstanding**

Bare ground occurs at the entrance to the site only.

Tall, Ruderal Herb

3.5 Tall, ruderal vegetation occurs adjacent to buildings, mostly in the eastern half of the site, where the land is undisturbed (see Photograph 3). Species include Common Nettle *Urtica dioica*, Broad-leaved Dock, Spear Thistle *Cirsium vulgare*, White Dead-nettle *Lamium album*, Ground-elder *Aegopodium podagraria*, Common Hogweed *Heracleum sphondylium*, garden escapes such as Mint, Bugloss, Peonies and saplings of Elder *Sambucus nigra.*



Photograph 3: showing tall, ruderal vegetation

Ephemeral/Short Perennial

3.6 Where hardstanding and other bare surfaces existed, low-growing ephemeral vegetation has established though disuse (see Photograph 4). Species include Common Nettle, Herb-Robert *Geranium robertianum* and Cleavers *Galium aparine.*



Photograph 4: showing ephemeral vegetation

Dense Scrub

3.7 Scrub is establishing in the north-eastern corner of the site (see Photograph 5). Species include mainly Bramble *Rubus fruticosus* agg, with some Hawthorn *Crataegus monogyna.*



Photograph 5: showing scrub

Intact Species-poor Hedgerow

3.8 Two sections of intact species-poor hedgerow exist on the northern boundary of the site. One is on the western end and measures approximately 20m in length, whilst the other lies at the eastern end of the site and measures around 5m in length. Both are made up of Holly *Ilex aquifolium* and Hawthorn. A Pedunculate Oak *Quercus robur* tree occurs within the hedgerow.

Introduced Shrub

3.8 A small area of garden shrubs exists at the site entrance.

Existing Buildings

3.10 Five buildings exist on site, all of which are agricultural-related structures in varying states of dereliction.



Photograph 6: showing the buildings within the site

INVASIVE SPECIES

3.11 No invasive, non-native species, as listed on Schedule 9 of The Wildlife & Countryside Act 1981 (as amended), were located during the survey.

4.0 PROTECTED SPECIES RESULTS

Badger

4.1 Badgers *Meles meles* are protected under the Protection of Badgers Act 1992. This Act, for example, makes it illegal to disturb a Badger whilst it is in a sett, to kill, injure or take a badger and to obstruct the entrance to a Badger sett.

4.2 No Badger sett was located within the site boundary or immediately outside of the site boundary during the survey. No evidence of Badger activity could be located.

Bats

4.3 All bat species are European Protected Species under the Conservation (Natural Habitats etc.) Regulations 1994, implemented in the UK by the Conservation of Habitats and Species Regulations 2019 (Amendment) (EU Exit). Bats are also protected under the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way Act 2000 and the Natural Environment and Rural Communities Act 2006. It is illegal to disturb or damage a bat roost.

4.4 Bat Surveys (including a daytime inspection and two dusk emergence surveys) have been undertaken at the buildings on the site. The results are within a separate report (see *Bat Surveys at The Old Barn, Coed Derwen, Erbistock, Wrexham 2024* – Andy Harmer). A bat roost has been found within the long barn.

4.5 There are no trees within the development area that could support a bat roost.

Barn Owl

4.6 All bird species are protected at their nest under the Wildlife and Countryside Act 1981 (as amended) but Barn Owls *Tyto alba* are afforded extra protected through inclusion on Schedule 1 of the Act which makes it an offence to 'recklessly disturb a Barn Owl whilst near a nest…or recklessly disturb dependent young of a Barn Owl'.

4.7 The site supports limited suitable Barn Owl foraging habitat and no evidence of Barn Owl nesting or roosting was found within any of the structures.

Great Crested Newt

4.8 Great Crested Newt *Triturus cristatus* is a European Protected Species (EPS). It is listed under Annex IV of the EC Directive on the Conservation of Natural Habitats and Wild Fauna and Flora. This is implemented in the UK by the Conservation of Habitats and Species Regulations 2019 (Amendment) (EU Exit). Great Crested Newt is also afforded full protection under the Wildlife and Countryside Act 1981 (as amended).

4.9 No waterbodies exist on the site. One pond exists within 250 metres of the proposed development. The pond is around 220m to the north-east. There is very limited connectivity between the pond and the site.

4.10 Suitable terrestrial habitat for Great Crested Newt exists within the boundary of the site. The rank grassland, tall vegetation and hedgerow bases offer foraging and commuting habitat. The amenity grassland, sparse vegetation and bare ground are not considered to be suitable habitat for Great Crested Newt.

Nesting Birds

4.11 All bird species are protected at their nest under the Wildlife and Countryside Act 1981 (as amended).

4.12 Suitable habitat for nesting birds exists on site, within the hedgerows, scrub and open buildings. Swallow *Hirundo rustica* was observed nesting within the long barn during the bat surveys.

PROTECTED SITES

4.13 The nearest statutory protected site is River Dee & Bala Lake Special Area of Conservation (SAC), an internationally important site, and River Dee Site of Special Scientific Interest (SSSI). This lies 160 metres to the north at its nearest point. The site lies within a SSSI Impact Risk Zone, which lists certain types of development that may impact upon local protected sites. Only rural residential developments of 50 units or more are listed as a risk.

5.0 ASSESSMENT

HABITATS

5.1 The Phase 1 Habitats present on the site are common throughout the UK. No nationally rare or locally rare plant species were located during the Extended Phase 1 Habitat Survey.

5.2 The site offers limited ecological value. The habitats are species-poor. The rank grassland, ruderal vegetation and scrub offer a limited source of pollen and nectar for invertebrates. The hedgerows and buildings offer habitat for nesting birds.

Development Context

5.3 The proposed development will involve the loss of the habitats, including the buildings, on site. The hedgerows will be retained. Given the low ecological value of the habitats to be lost, no specific habitat mitigation will be required. However, in line with the NPPF, relevant legislation and local planning policy, it is recommended that the site is designed to ensure it is enhanced ecologically, with, for example, new species-rich hedgerows on boundaries, species-rich grassland, a variety of flowering shrubs, trees, and bird and bat boxes.

PROTECTED SPECIES

Badger

5.4 No Badger setts were located within the site boundary or immediately outside of the site boundary. Given the lack of setts within the site or within 30 metres of the site, no further Badger survey work is considered to be necessary.

Bats

5.5 Full details of the bat survey results and mitigation can be found the separate bat report.

Barn Owl

5.6 No evidence of Barn Owl roosting or nesting was found during the surveys. No Barn Owl mitigation is necessary.

Great Crested Newt

5.7 No ponds exist on site. One pond was located within 250 metres of the site. This lies 220 metres to the north-east. There is limited habitat connectivity between the site and this pond. The site supports suitable terrestrial habitat for Great Crested Newt. Given the lack of connected breeding habitat to the site and the general lack of ponds in the vicinity, as well as the distance between the site and the pond, it is considered reasonably unlikely that Great Crested Newt occurs on site. No further amphibian survey work is recommended. However, construction sites can support habitat that is suitable for Great Crested Newt, such as spoil piles and excavations. Therefore, it is recommended that the

development is undertaken under a Reasonable Avoidance Measures (RAMs) Method Statement (see Section 6 – Recommendations).

Nesting Birds

5.8 The site supports suitable nesting habitat for birds, with active Swallow nests found during the bat surveys. Nesting birds can be somewhat mitigated for by allowing no works to be carried out to nesting habitat within the bird nesting season (which is generally March to August). Or, if any work needs to proceed within the bird nesting season, then a nesting bird survey will be required immediately prior to any work commencing.

5.9 Nesting bird habitat will be provided on site (see Section 6 – Recommendations).

PROTECTED SITES

5.10 The nearest statutory protected site is River Dee & Bala Lake SAC and River Dee SSSI, which lies 160 metres to the north at its nearest point. A track and grazed pasture lie between the development site and the protected site. Given the low impact nature of the development, and the fact that the development is less than 50 units, there is expected to be no deleterious impact on the SAC & SSSI from the development.

6.0 RECOMMENDATIONS

Further Survey

6.1 The presence of protected species is a material consideration when a planning authority is considering a planning application. The presence of protected species and the effect of the proposed development must be established before planning permission can be granted. Bat surveys have been undertaken in 2024 (see the separate bat survey report). No further protected species surveys are considered necessary for the planning application.

6.2 Depending on the timing of the site clearance, the following survey may be required:

- **Nesting Birds** – If any potential nesting habitat is to be felled/demolished within the nesting bird season (which is generally 1st March to 31st August), then a nesting bird check will be required immediately prior to work commencing, by a suitably experienced ecologist.

Protected Species

6.3 If a protected species is found on site during the development works, work must stop and a suitably experienced ecologist be contacted for advice.

Reasonable Avoidance Measures (RAMs)

6.4 The following Method Statement must be adhered to during the development:

- Should any Great Crested Newt, or any other protected species, be found during construction, **work will stop** and a licensed ecologist will be contacted immediately.

- Prior to construction work starting on site, a one-way temporary amphibian fence will be erected around the site perimeter, to prevent a Great Crested Newt from entering the construction zone. This fence must be removed upon the completion of the development. Both the installation of the fence and the removal of the fence will take place under ecological supervision, with an ecologist undertaking a destructive search of the fence route prior to installation and removal.

- Prior to construction work starting on site, a toolbox talk will be given by an ecologist to all construction personnel. The construction team will nominate a lead member of the team to ensure the RAMs are carried out daily.

- An ecologist will be on call throughout the construction work and may visit site periodically.

- A copy of this RAMs statement will be available at all times on site.

- Prior to commencement of work each day, a brief site walkover will be undertaken by construction personnel to ensure no GCN have entered the construction site overnight particularly any excavations left overnight.

- Heavy vehicles will use existing tracks onto and within the construction zone and avoid driving close to hedgerows.

- It is advisable that only building products to be used on the day are brought and stored on the site. If building products need to be stored on site (e.g. overnight or for a few days) these products will be stored on palettes or retained in bags on palettes to ensure that refuges are not created that will attract newts. If possible, building products should be placed on existing hardstanding.

- All holes created during the construction period (e.g. to lay foundations) will be filled in and finished on the same day so as not to leave any 'pitfall' traps. If this is unavoidable, then **one** of the following measures needs to be implemented:

    An escape route is provided overnight from the hole which can be in the form of a wooden plank OR

    The hole is completely covered by a heavy stone slab which is flush to the surrounding ground, so no newts can access the hole.

- Any spoil resulting from any excavations will be removed from the construction area on the same day and will be taken off site OR placed on hardstanding or on palettes to be removed at a later date.

- All hedgerows will be maintained throughout the construction period.

Habitat Creation and Biodiversity Enhancement

6.5 The development needs to increase the ecological value of the land. This could include the following:

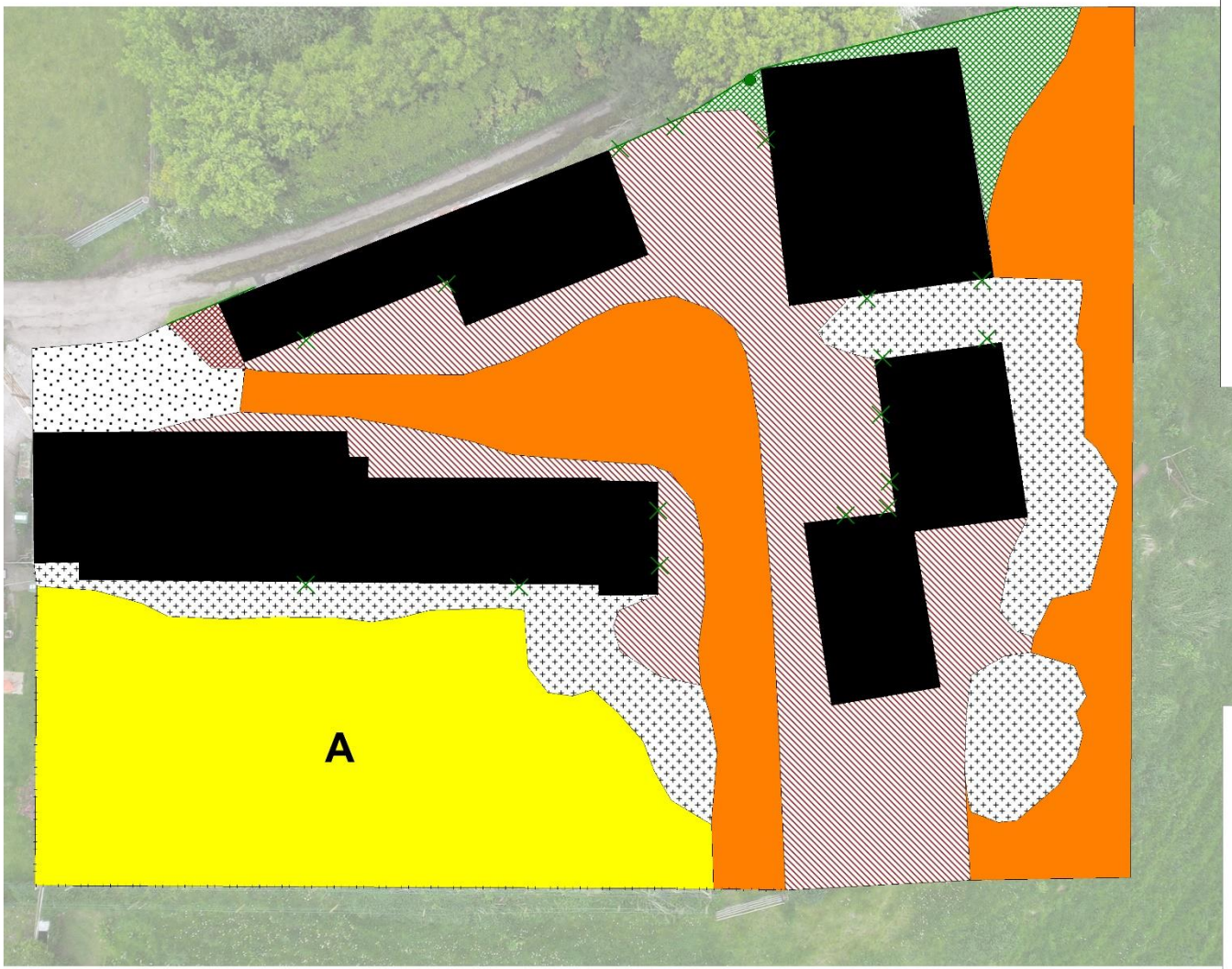
- Species-rich native hedgerows on the site boundaries (replacing existing fencing).

- Species-rich planting such as amenity grassland, wildflower grassland and shrub beds.

- Native trees or fruit trees planted.

- Bird boxes and bat boxes/tiles erected onto retained trees or erected/incorporated into the new dwellings.

PHASE 1 HABITAT MAP



KEY

- A — Amenity Grassland
- Bare Ground
- Building
- Dense Scrub
- Ephemeral/Short Perennial
- Introduced Shrub
- Neutral Grassland
- Tall, Ruderal Herb
- Fence
- Species-poor Intact Hedgerow
- Scattered Scrub
- Tree

Phase 1 Habitat Map

The Old Barn, Coed, Derwen, Erbistock, Wrexham

Drawn by: RJH
Date: 18/06/2024

NOT TO SCALE

Andy Harmer Limited