

## Broad Oak Farm, Rossett – Planning Application

### Supplemental note - ECOLOGY

Bowland Ecology Ltd. was commissioned to undertake an extended Phase 1 habitat survey and daytime building inspection of buildings at Broad Oak Farm, Wrexham (NGR: SJ 36736 58495). The site is subject to development proposals for a residential scheme; the proposals include the demolition of a number of the buildings on site and refurbishment of buildings that are not proposed for demolition.

The purpose of the survey was: to identify and map all habitats occurring within the survey area; and to identify the presence of (or potential for) wildlife interests with particular reference to the need for mitigation and legal requirements.

The desk study, extended Phase 1 habitat survey, building inspection and ecological appraisal followed the Guidelines for Preliminary Ecological Appraisal (GPEA) (CIEEM, 2013) and are in line with the British Standard BS42020:2013 'Biodiversity – Code of practice for planning and development.

The Ecological Survey and Assessment completed by Environmental Research and Advisory Partnership (ERAP) in 2008 was also consulted.

Following on from recommendations, further bat surveys have been carried out by Sambrook Associates and a bat mitigation report produced.

#### ***Desk Study***

The aim of the desk study was to identify the presence of statutory wildlife sites, non-statutory wildlife sites and protected species records within 1 km of the site.

The Ecological Survey and Assessment completed by Environmental Research and Advisory Partnership (ERAP) in 2008 was also consulted.

#### ***Extended Phase 1 Habitat Survey***

An ecological walkover survey was undertaken, following the 'extended Phase 1 methodology (JNCC, 2010 as amended) and Guidelines for Preliminary Ecological Appraisal (CIEEM, 2013).

The timing of the Phase 1 survey was within the optimum period for completing such a survey.

### ***Daytime Building Inspection Survey***

A daytime internal and external inspection of the buildings was undertaken on the 14th September 2016. The internal inspection involved a search of the affected buildings for field signs such as: bats, bat droppings, urine stains, bat feeding remains (moth wings, insect cases), bat staining, a distinctive smell of bats, scratch marks and smoothing of surfaces, which would indicate a roosting site. The external inspection involved checking for field signs of bats on external features of the buildings with particular attention being paid to windowsills, windowpanes and ledges, walls, doors and the ground around the buildings.

## **RESULTS**

### **Statutory and Non-Statutory Wildlife Sites**

There are no statutory designated sites within 1 km of the site.

### ***Habitats***

The application site itself comprises hardstanding, buildings, ditches, ephemeral vegetation, tall ruderal vegetation, scattered scrub, and hedgerow.

The surrounding area comprises open arable land and pockets of broadleaved woodland. A single pond is located approximately 0.22 km south of the survey area on the western side of the road.

### ***Fauna***

The habitats on site provide negligible commuting and foraging habitat for bats.

Of the 15 buildings inspected across the site, only 4 were identified as offering moderate/high potential to support roosting bats, these principally being those comprising the traditional courtyard adjacent the original farmhouse.

The desk study returned no records for the species within the 1 km search area, and the adjacent habitats are considered largely unsuitable for common lizard due to their intensively managed, agricultural nature.

There is no amphibian breeding habitat within the application site.

A single waterbody is located within 0.22 km south of the site. The pond returned a HSI score of 0.6 indicating that the pond provides average suitability to support a population of great crested newts. The search with RECORD returned no records of GCN within the 1 km search area.

Three of the buildings provide potential barn owl habitat. However, no evidence of the species was recorded in buildings during the survey.

No evidence of suitable habitat for any other protected or notable species including badger was identified on site at the time of survey.

## EVALUATION

Development of the site may result in the loss of hardstanding, ephemeral habitats, species poor semi-improved grassland, tall ruderal vegetation and scattered scrub. These habitats are locally common and of limited ecological value, therefore mitigation for their loss is not currently required.

No conclusive evidence of roosting bats was found during the internal and external building inspections of the majority of the buildings, which were assessed as having low potential to support roosting bats.

Evidence of roosting brown long-eared bats, in the form of droppings and feeding remains, was recorded in two buildings, these being those comprising the traditional courtyard adjacent the original farmhouse. These buildings are to be converted for residential, hence suitable mitigation is required to provide alternative roost space as part of the development proposal.

The results of the Phase 1 survey reinforce those of the 2008 survey work undertaken by ERAP and accordingly the mitigation proposal put forward at that time will be mirrored in the current application.

Due to the distance of Pond 1 and GCN records from site (>150 m) it is considered that the core GCN area is located to the east of the site where there are a number of ponds likely to be suitable for GCN and confirmed records for GCN. It is not unfeasible that small numbers of GCN are utilising terrestrial habitats within 150 m of the site, however, it is considered that the risks of encountering GCN are **low** due to 1) the limited terrestrial habitat connecting the GCN pond to the development site, 2) the absence of historical records of GCN to the south, north and west of the site, 3), and 4) the lack of further ponds within 0.25 km of the site.

## RECOMMENDATIONS

### *Habitats*

New planting to be incorporated within the proposed development. Best use of native species.

Planting of areas of species rich grassland around the periphery of the site.

### **Bats**

Demolition/renovation works will be required to be performed under a European Protected Species mitigation licence issued by Natural Resources Wales (NRW).

Mitigation strategy incorporated in the development proposal, as per separate document prepared by ecologist. In summary, this will comprise a new bat loft incorporated within the roof void of a new parking barn located to the rear and in close proximity to the existing courtyard buildings. This approach is comparable to the method statement set out within the ERAP 2008 document.

### **Reptiles & Amphibians**

It is submitted that, whilst the likelihood of GCN is minimal, the following Reasonable Avoidance Measures (RAMs) will be followed for the construction stage:

- Before construction works commence, all contractors must receive a 'tool-box' talk or site induction from a suitably qualified ecologist to make them aware of the potential for amphibians, legislative context and procedure if amphibians are encountered during works;
- If clearance of tall ruderals, woodland, scattered scrub, hedgerows is undertaken during the active season for GCN, no more than two weeks prior to works commencing on site, all vegetation within any working areas, where required, should be cut or removed using hand held machinery (i.e. strimmer, brushcutter, chainsaw) to a height of no less than 150 mm;
- The working area must be left for a minimum of two days to allow any amphibians that may be present to move out of the immediate area. A second cut using hand held machinery (i.e. strimmer or brushcutter) should be then carried out to a height of 50 mm;
- Any brash/log/rubble piles should be dismantled by hand and be taken out of the working area for use to create habitats in suitable locations outside of the proposed works location;
- Hand search for amphibians within the cleared areas must be completed by a suitably qualified ecologist after vegetation strimming is completed and immediately prior to the commencement of construction works;
- Excavations to be backfilled, covered over, or a means of escape provided (e.g. plank) at the end of each day in order to prevent amphibians becoming stranded within trenches;
- All works, stockpiling of materials or storage of machinery must be contained within sub-optimal habitat (bare ground or hard standing), and/or raised off the ground;
- In the event that any great crested newts are encountered during the works, all works must cease immediately and the ecologist contacted for further advice. Any GCN should be moved by a suitably qualified ecologist to a suitable location outside the works area.

### ***Birds***

Any vegetation clearance across the site should take place outside the breeding bird season which runs from March until August inclusive, in order to prevent impacts upon nesting birds.

Appropriate mitigation in the form of built in nests within the new development and habitat creation for barn owls.