

Ecological Impact Assessment
of land at Hare Hill Farm

Edgton
Craven Arms
Shropshire
SY7 8HN

(SO38105.85703)

By Churton Ecology
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SUMMARY

Background

Churton Ecology was instructed to carry out an Ecological Impact Assessment of land at Hare Hill Farm, Edgton, Craven Arms, Shropshire SY7 8HN.

The site comprises a modified static home and polytunnel, surrounded by areas of improved grassland and hardstanding. The proposal is for the construction of a single residential dwelling.

Method of study

A desktop search and general protected species walkover of the site and surrounds aimed to establish the presence or absence of bats, Great Crested Newts, Badger, breeding birds and other protected species with potential to be negatively affected by the proposal. All survey activities potentially disturbing to bats were carried out under licence by Mr Rob Thorne on 08/11/23.

Ecological features

The site supports habitats of low biodiversity value. Birds (nesting) are considered to be an important ecological feature of the site. The north boundary hedgerow is suitable for bats (foraging and commuting) and this is considered to be an important ecological feature of the site's potential area of influence.

Mitigation and enhancement measures

With mitigation measures in place for bats (appropriate lighting measures) and breeding birds there should be no significant residual adverse effect on protected species.

With enhancements in place (attaching bat and bird boxes to the building and/or nearby trees) there would be a maintenance or increase in the biodiversity value of the site.

1 INTRODUCTION

1.1 Background and site description

Churton Ecology was commissioned by Roger Parry and Partners LLP to carry out an Ecological Impact Assessment of land at Hare Hill Farm, Edgton, Craven Arms, Shropshire SY7 8HN (SO38105.85703).



Fig 1: Site location and layout
OS map licence no. 100048619

A desktop search and general protected species walkover of the site and surrounds aimed to establish the presence or absence of bats, Great Crested Newts, Badger, breeding birds and other protected species with potential to be negatively affected by the proposal.

The site comprises a modified static home and polytunnel, surrounded by areas of improved grassland and hardstanding.

1.2 Proposed works

The proposal is for the construction of a single residential dwelling. This will require the removal of the existing static home and one polytunnel.

2 METHODOLOGY

2.1 Desk study

Sites of international and national conservation significance were sought within 1km of the site. Sites of local conservation significance were sought within 500m of the site. Searches were conducted using the following sources:

- MAGIC maps
- The Shropshire Environmental Network (SEN)

OS maps and aerial photographs (Google Earth) were used to identify landscape features of potential ecological interest including hedgerows, tree-lines, ponds, streams, ditches and areas of likely (semi-)natural value.

2.2 Habitat survey

A survey of the site and surrounds was conducted on 08/11/23 by Mr Rob Thorne following the JNCC (1993) Phase 1 methodology.

Habitats were assessed and their importance/value noted based on botanic diversity and/or their potential to support uncommon or rare species of flora and fauna (e.g. axiophytes/Red Data Book species).

2.3 Protected species survey

2.3.1 Bats

Field survey

Trees with features thought suitable to support bat roosts were identified on and immediately adjacent to the site.

A suitably high ladder was available to access all elevated (building) areas with potential to support roosting bats. A roof ladder was available to access and inspect the roof structure; however, this equipment was not required.

Searches were conducted using a fibrescope, extraction pooter, mirrors and torches to identify and collect signs indicating past or current bat use, such as the presence or not of live or dead bats, their droppings or urine splats, cobweb-free areas in cracks and crevices, grease stains or smoothed edges within or below potential roosts and/or their access points.

Habitat suitability assessment

A general habitat suitability assessment of the site and surrounds was carried out to determine the likely value of foraging and commuting habitats.

2.3.2 Great Crested Newt

Desktop search

Ponds and other potential breeding habitats were sought within 250m of the site using OS maps and aerial photographs.

Breeding habitat suitability assessment

One pond was broadly assessed for its breeding habitat suitability.

Terrestrial habitat suitability assessment

The habitats on and adjacent to the site were assessed for their suitability to provide places of rest or shelter (referred to as terrestrial habitats). The potential for newts to traverse the site and any dispersal limitations that might interrupt such movements were also considered.

2.3.3 Badger

Field survey

Burrows were sought within at least 50m of the site. Other evidence of site use, such as latrine pits, paths, snuffle holes, feeding remains and hairs (in burrow spoil or snagged along trails) was also sought.

2.3.4 Breeding birds

Field survey

Birds seen or heard during the survey were recorded and old nests were attributed to species where possible.

Habitat suitability assessment

Habitats, with potential to support common, priority or Schedule 1 species of nesting bird were identified within the site and the immediate surrounds.

2.3.5 Other protected and priority species

Habitat suitability assessment

Habitats thought suitable to support other protected or priority species potentially relevant to the site location were also sought. Where no suitable habitats exist and/or where no impacts

can be reasonably predicted, species can be discounted from further survey, impact assessment and mitigation - in this instance Dormouse, Otter, Water Vole, White-clawed Crayfish and Reptiles.

3 RESULTS AND EVALUATION

3.1 Designated sites

Statutory sites

There are no sites of international or national conservation significance within 1km of the site and no sites of local conservation significance within 500m of the site.

The site appears to be located in the catchment of The River Clun (SAC).

The Shropshire Environmental Network

The site does not represent a core area or corridor in the Shropshire Environmental Network.

Evaluation and discussion

The site appears to fall within the River Clun catchment which is a potential environmental issue in relation to all types of planning application in this location. Ultimately all drainage matters will be considered by the relevant planning consultees with appropriate recommendations made and incorporated into the design of the scheme (if feasible). It is not the remit of this report to consider the effects of pollution on statutory or non-statutory sites for nature conservation, since there is no reasonable likelihood of this occurring with the system of planning control in place. N.B. the site drainage strategy will need to be informed by Shropshire Council's guidance on developments in this catchment [GN12 Development within the River Clun Catchment - gn12-development-within-the-river-clun-catchment.pdf (shropshire.gov.uk)].

3.2 Field survey

3.2.1 Building description

The site supports a modified static home covered with a mix of horizontal and vertical timber cladding. Some of the cladding is loose and these areas have some potential to support roosting bats and/or nesting birds.



P1: W (end) + S (side) elevations: looking ENE



P2: Polytunnel: viewed from the NE, looking SSW

The site also supports a polytunnel used for growing vegetables. This structure has no suitability to support roosting bats or nesting birds.

3.2.2 Habitat descriptions

The static home and polytunnel are surrounded by improved amenity grassland and hardstanding (the access track). A low privet hedge is also present along the eastern boundary of the site.



P3: Site: viewed from the SE corner, looking NW



P4: Site: viewed from the SE corner, looking N

Plant species noted included: Perennial Rye-grass, Cock's-foot, Yorkshire Fog, Creeping Bent, Common Bent, Annual Meadowgrass, Smooth Meadowgrass, Hard Rush, White Clover, Creeping Buttercup, Dandelion sp., Ribwort Plantain, Sticky Mouse-ear, Greater Plantain, Red Dead-nettle, Ox-eye Daisy, Common Groundsel, Fennel, Verbena, Columbine, Lungwort, Rowan (planted saplings), Herb Robert, Common Ragwort, Common Orache, Fat Hen, Hedge Woundwort, Hedge Mustard, Shepherds Purse, Bramble, Nettle, Cleavers, Creeping Thistle, Spear Thistle, Prickly Sow-thistle, Broadleaved Willowherb, Hoary Willowherb, Broadleaved Dock and Cow Parsley.

Evaluation and discussion

None of the habitats present represent rare or priority habitat types and none are considered to be important ecological features of the site.

3.2.3 Habitats in the site surrounds

The site is bordered by a tall (15 - 20ft high) hedgerow (Ash, Field Maple, Wych Elm, Holly, Hazel, Dog Rose and Blackthorn) along the north boundary of the site. No removal or management intervention of the hedgerow is proposed.

3.2.4 Flora

Field survey

No rare or otherwise notable plant species were recorded within the site.

3.2.5 Invasive non-native plant species

Field survey

No invasive, non-native plant species were recorded within the site.

3.3 Protected species survey

3.3.1 Bats

Daytime inspection survey

None of the trees on or bordering the site has the potential to support roosting bats. No bats, droppings or other field signs were noted under the loose areas of cladding on the static home.

Habitat suitability assessment

The site is situated on high, exposed ground and lacks any features that are likely to be of particular interest to foraging bats.

Evaluation and discussion

The building inspection survey was carried out thoroughly and all areas could be accessed and inspected closely and no evidence of a bat roost could be identified.

The Bat Conservation Trust's guidelines state in Section 5.2.9 that: 'if the structure has been classified as having low suitability for bats, an ecologist should make a professional judgement on how to proceed based on all the evidence available...if sufficient areas (including voids, cracks and crevices) of a structure have been inspected and no evidence

found (and is unlikely to have been removed by weather or cleaning or been hidden) then further surveys may not be appropriate. Information should be presented in the survey report to justify this conclusion and the likelihood of bats being present at other times of the year estimated'.

The more sheltered and less disturbed parts of the building (such as the enclosed crevices beneath the cladding) would retain droppings (and other field signs) from this year and from previous years and the equipment used ensured that no area was hidden from view or inaccessible and no field signs were recorded in or below any potential features identified.

The building is not considered suitable for hibernation or swarming purposes; therefore, it is reasonable to conclude that the building would not be occupied by bats at any time of year. It is therefore the opinion of Churton Ecology that no further bat survey effort, impact assessment or mitigation is required in relation to roosting bats.

3.3.2 Great Crested Newt

Desktop search

The site is located in the known geographic range for this species and the species is widespread in this part of the county. Given the scale of the development, only ponds within 250m of the site were considered to be potentially relevant to the proposal. One pond was identified within this area. There was nothing to indicate the potential presence of any unmapped ponds (from aerial photography).



Fig 2: Pond location plan (with site in red)



P5: Pond P1: viewed from the SE, looking NW

Aquatic (breeding) habitat suitability assessment

Pond P1 is silted up and there is no longer a depression or sump suitable to hold standing water. At the time of survey (after protracted periods of heavy rain) a wide band of water was

noted running across the silted surface of the pond and draining into a culvert under the adjacent road.

Evaluation and discussion

There are no potential breeding habitats within at least 620m of the site - the next nearest mapped pond. It is therefore the opinion of Churton Ecology that no further survey, impact assessment or mitigation is required in relation to this species.

3.3.3 Badger

Field survey

No signs of Badger were noted within at least 50m of the site.

Evaluation and discussion

Badger is not considered to be an important ecological feature of this site; therefore, no further survey, impact assessment or mitigation is required in relation to it.

3.3.4 Birds

Field survey

No evidence of bird use was identified within the building or in any other part of the site.

Habitat suitability assessment

Although no evidence of nesting activity was recorded, there is potential for some of the concealed ledges behind the cladding to support nesting birds.

Evaluation and discussion

Nesting birds may be an important ecological feature of the site but given the scale and commonality of the habitats present these are likely to be important at the site level only.

3.3.5 Other protected and priority species

Evaluation and discussion

There is limited potential for other protected or priority species to be negatively affected by the proposed development. As a note of interest White-letter Hairstreak (a priority butterfly species) eggs were recorded on Wych Elm buds along the lane to the east.

4 POTENTIAL IMPACTS

4.1 General

This section considers the potential impacts (and subsequent effects) which might arise from the development in the absence of avoidance measures and/or mitigation. Wherever possible, the negative ecological impact of a development must be avoided. Any residual effects and their level of significance are further discussed with mitigation and/or enhancements in place.

It is important to note that the purpose of an ecological impact assessment is to consider impacts and effects in relation to species and habitats that have some level of international, national or local conservation significance – broadly speaking rare, uncommon or declining species and habitats. These are variously protected by domestic law and priority species have some limited protection under the provisions of the NERC Act and The Environment Act (2021) – species and habitats listed on the UK/Local biodiversity/habitat action plan and consequently S41 of the NERC Act.

4.2 Protected species

4.2.1 Bats

Significance of effects prior to mitigation

The development will not result in the deterioration, damage, destruction or obstruction of a bat roost and no bats will be disturbed, captured, injured, killed or transported as a result of the proposal.

There will be no significant loss of potential bat foraging habitat; however, the illumination of any peripheral habitats could result in the disturbance or deterioration of commuting habitats. It would be difficult to quantify the significance of the impact of lighting and its effect on bats, since the species and status of any roosts potentially present nearby is unknown. Therefore, it must be assumed (on balance) that a significant effect at the site level is possible.

Significance of residual effects after mitigation

With lighting mitigation measures in place there should be no significant residual adverse effect on commuting and foraging bat species.

Significance of residual effects after enhancement

The provision of a bat box mounted within the curtilage of the property could only have a beneficial effect on local bat populations.

4.2.2 Breeding birds

Significance of effects prior to mitigation

The development may result in the small scale loss of suitable nesting habitat. The impact of this is unlikely to have a significant adverse effect on local bird populations; however, works that have the potential to damage or destroy the (active) nesting site of a bird would constitute a legal offence.

Significance of residual effects after mitigation

With mitigation measures in place (creating new nesting habitats and timing any demolition/de-cladding activities) there will be no significant residual adverse effect on nesting birds (or risk of legal offences occurring).

Significance of residual effects after enhancement

The provision of bird boxes mounted within the curtilage of the property could only have a beneficial effect on local bird populations.

4.3 Survey constraints

There were no significant survey constraints.

4.4 Protected species legislation

Bats

All UK bat species are protected under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 and The Wildlife and Countryside Act 1981 (as amended). Essentially this makes it unlawful to; deliberately capture, injure or kill a bat; intentionally or recklessly disturb a bat whilst it occupies a roost or deliberately cause disturbance to (a bat) or significant group of bats; damage or destroy the roosting site of a bat; intentionally or recklessly obstruct access to a bat roost.

Notably, legal protection gives absolute protection to bat roosts and their continued functionality, regardless of deliberate, intentional or reckless action. Legal protection also extends to seasonal roosts which are not always occupied by bats throughout the year.

Disturbance caused through excessive noise or lighting and/or alterations to the landscape could potentially impact on bat roosting, foraging and/or commuting habitats and may have legal implications with regards disturbance and roost deterioration laws. It is therefore the duty of the relevant competent authority to take habitat severance, disturbance and land use change issues and their potential for impact on bat populations into consideration when assessing applications for the relevant consent.

Birds

With the exception of Schedule 1 listed bird species, which receive a higher level of protection against breeding disturbance, all common species of bird are protected during their breeding activities under the Wildlife and Countryside Act 1981

Essentially, this makes it an offence to intentionally take, damage or destroy the nest of any wild bird whilst that nest is occupied or being built; intentionally take or destroy the egg of any wild bird.

4.5 Personnel

Rob Thorne BA (Hons) MRSB has eighteen years' experience surveying sites for development and conservation purposes, covering Ecological Impact Assessment, botanical and vegetation surveys, and is competent to survey for a wide range of protected and priority species. He holds NE and NRW bat (17yrs) and Great Crested Newt (15yrs) survey and numerous mitigation licences and is a long-time member of The Shropshire Bat Group. He holds, or is accredited to work under, survey licences for Barn Owl, White-clawed Crayfish and Dormouse. He is also an experienced reptile and Otter surveyor having undertaken large scale reptile surveys for Natural England (to inform SSSI designations) and the Wildlife Trusts and targeted Otter surveys of watercourses for The Shropshire Mammal Group (as well as for numerous development proposals). He is also experienced in reptile mitigation, habitat management and trans/re-locations and has carried out long-term studies of several Slow-worm populations.

5 PROPOSED AVOIDANCE MEASURES, MITIGATION AND ENHANCEMENTS

5.1 Avoidance measures and mitigation

5.1.1 Protected species

Bats

No further mitigation is required other than the careful vigilance of contractors during the works period; however, in the event that bats, or evidence of bats, are encountered during any part of the development, then there is a legal requirement for works to cease and a licensed and experienced ecologist must be contacted immediately. Natural England may also need to be consulted and further surveys will most likely need to be conducted to meet any subsequent licensing requirements.

If bats are discovered these should be covered by the last object removed (where there is no risk of crushing) and any associated coverings nearby must also be replaced. An estimate of the numbers should be **quickly** ascertained by the contractor before the bats are concealed. If grounded bats are discovered these should be covered by a cardboard box until the bat worker arrives.

If any external lighting is proposed, then a lighting plan may be requested as a condition of planning consent. Alternatively, a lighting plan can be submitted with the application to reduce the number of conditions attached to the decision notice. The plan submitted must take into account the following guidance and summary recommendations:

- Bat Conservation Trust (2023) *Bats and Artificial Lighting at Night – Institute of Lighting Professionals* Bat Conservation Trust, London
- Bat Conservation Trust (2018) *Bats and artificial lighting in the UK – Bats and the Built Environment Series* Bat Conservation Trust, London
- Bat Conservation Trust (2014) *Interim Guidance: Artificial lighting and wildlife – Recommendations to help minimise the impact of artificial lighting* Bat Conservation, London
- Institute of Lighting Professionals (2011) *Guidance notes for the reduction of obtrusive light* Institute of Lighting Professionals, London

As a matter of best practice, external lighting must be minimised or avoided altogether. Where used, lighting must be fixed on the lowest column practical with light spread kept well below the horizontal using cowls, hoods, screens or simply by downward directionality. LED bulbs with a warm white colour spectrum (2700 Kelvins) must be used to reduce the blue light component most disturbing to bats. PIR systems must be set on a short timer and

responsive only to larger moving objects. It is particularly important to avoid or minimise light spread onto the north boundary hedgerow.

Breeding birds

The nests of actively breeding birds must be avoided during the works period. If nests are encountered then works must cease or avoid that area until the young have departed the nest. Works that may affect nesting birds (demolition/de-cladding activities) must be carried out as follows:

- Between 31st August and March 1st - outside the breeding season - when birds are unlikely to be nesting.
- After thorough checks have failed to locate nesting birds immediately prior to demolition/de-cladding works commencing during the bird nesting season.
- At any time of year after access to all potential nesting sites have been obstructed outside the breeding season (i.e. between 31st August and March 1st)

See enhancement chapter for suggestions on how to offset (mitigate) the loss of bird nesting habitat.

5.2 Enhancement recommendations

5.2.1 Species

Bat and bird boxes could be erected on/in the new building and/or suitable trees under the same land ownership.

The locations of these would typically be provided at the Reserved Matters (or a prior to first occupation condition); however, where bat roosting features are to be integrated into the fabric of the building (such as a bat tube/box) it is advisable to include these in the architectural drawings submitted with the application to avoid the need to retro-fit at a later date.

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