

# EXTENDED PHASE ONE HABITAT SURVEY

Land at Upper Penarron  
Kerry  
Powys



**GRID REFERENCE: SO129879**  
Report for Roger Parry and Partners



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## 1 INTRODUCTION

### 1.1 BACKGROUND

Arbor Vitae were commissioned to carry out a Phase One Habitat Survey, including a Protected Species survey, of land at Upper Penarron. This land is the subject of a planning application for the erection of a 32,000 bird free range poultry building, silos and associated infrastructure.

Consultations with Powys County Council have resulted in requests for further ecological information to be presented. This report presents the results of a field survey carried out on 23 October 2017.

### 1.2 DETAILS OF PROPOSED WORKS

The work will involve the construction of one new poultry building, along with an access track and feed bins (see Figure 2). The building will house 32,000 free range chickens. A ranging area which includes eight neighbouring grass fields will be provided and fencing will be erected to both protect chickens from predators and protect natural features such as hedgerows from excessive grazing. Access will be created from the minor road at the edge of the field, via the existing farm driveway. This will require the removal of a short section of hedgerow.

### 1.3 SCOPE OF SURVEY

This report sets out to establish the base-line ecological condition of the site and to identify and evaluate any potential impacts which the scheme may have, taking account of any mitigation and enhancement to the ecology which the scheme can offer.

Construction of the building inevitably involves a change of land use and therefore has the potential to remove existing habitat and to physically disturb protected species, if present. The operation of the ranging area could have implications for habitats and species.

The nature of the immediate and surrounding habitat indicated that the following species could theoretically be affected by physical disturbance of habitats.

Protected or key species potentially affected:

- Badgers
- Breeding birds
- Dormice
- Great crested newts
- Hedgehogs
- Reptiles



This report sets out the results of the field surveys and desk study, along with an assessment of potential ecological impacts of the construction of the new building and the creation of a ranging area for poultry.

Powys County Council has specifically asked for additional information relating to the pond within the ranging area and the potential impact on dormice which have been recorded locally. These issues are addressed below.

## 2 SITE DESCRIPTION

### 2.1 LOCATION AND LANDSCAPE

The proposed construction site is located on a grass field on a beef and sheep farm 2 kms due south west of the village of Kerry (see Figure 2 Location plan). The site will occupy the upper section of a gently sloping field adjacent to the farmstead and bounded to the east by a minor road. The area as a whole is typical of an upland stock farm. Fields are all in grass and are generally small in scale with wide, often tall, hedges separating them. Small patches of broad-leaved woodland are frequent in the area as a whole although not on the farm itself.

The land lies at approximately 360 metres AOD, slightly below the crest of the hill to the south. Land to the west is a series of valleys and ridges falling away to the Severn valley 3 kms. To the south east, the land climbs towards the Kerry Hill ridge at a height of approximately 380 metres AOD.

A large, broad-leaved woodland (Black Plantation), chiefly of birch, occupies a site 80 metres to the north east of the proposed site.

## 3 SURVEY METHODOLOGY

### 3.1 DESK STUDY

A number of data sets were investigated to ascertain the presence or otherwise of nearby land designations, scheduled sites or protected species. Sources which were used included MAGIC, Forestry Commission Land Information search and BIS.

### 3.2 FIELD SURVEY

One visit was made to the site on the 23 October 2017 to survey that part of the farm affected both by the new building and the proposed ranging area. The site was surveyed to identify specific habitats and potential opportunities for protected species. Adjacent land was inspected for evidence of key habitats or key species.



An assessment of the available habitats both on and adjacent to the site led to consideration of the potential of the site for the following protected species:

- Badger
- Breeding birds
- Dormice
- Great crested newts

The survey methodology was tailored to evaluate the area for these species.

Although neither hedgehog nor reptile species have been recorded locally, the habitats on site were assessed for their potential to support these species.

### ***Badgers***

An area within 50 metres of the site was closely searched for the following signs of badger activity: setts, tracks and footprints, latrines and snuffle holes.

### ***Breeding birds***

The habitat was assessed in terms of suitability for breeding birds, including any nearby hedgerows or trees.

### ***Dormice***

The hedgerows on site were assessed in terms of suitability for dormice.

### ***Great crested newts***

A map and ground search was made for any areas of open water within 250 metres of the construction site. These were assessed for their suitability as breeding sites for great crested newts using the Habitat Suitability Index.

## **3.3 PERSONNEL**

The survey was carried out by Will Prestwood BSc Hons: an experienced ecologist and surveyor at Arbor Vitae Environment.

## **3.4 CONSTRAINTS**

There were no constraints to the survey being carried out successfully.



## 4 SURVEY RESULTS

### 4.1 DESK STUDY

#### Nature conservation or other designations

There are no designated nature conservation sites within a 5 km radius around the site.

The nearest sites of ecological importance are:

River Teme SSSI – 3200 metres from the site

Mochdre Dingle SSSI – 4100 metres from the site

There are a total of 72 parcels of ancient woodland within 2 kms of the site.

No sites with statutory or non-statutory designations within the area would be directly affected by this development.

#### Protected species

A total of eight Priority species (including protected species) have been recorded within one kilometre of the site (See Figure 3 for details). These species include:

Goshawk

Yellowhammer

Tree sparrow

Dormouse

Atlantic salmon

Brown trout

Badger

Bluebell

In addition, 22 species of Conservation Concern have been recorded within one kilometre of the site. These are all species of invertebrate recorded at Cwm Weeg.

A response to the planning application from Powys County Council indicates that ‘there are a number of dormouse records within one kilometre of the development’. These appear to be from Penarron Wood which lies 520 metres to the north west of the site.

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### 4.2 HABITATS ON CONSTRUCTION SITE

#### Improved grassland

The new poultry building will occupy land which is currently improved grassland and which is closely grazed by sheep and cattle. The sward contains a very limited range of species.



**Hedgerows**

Hedgerow 1 forms the northern boundary of the chicken shed field and forms the edge of the farm access drive. This is a mixed, native species hedge with hawthorn, blackthorn, dog rose, ash, holly, goat willow, silver birch and alder. A short length of this hedge will be removed by extending an existing gap in order to create an access track.

The roadside hedge, Hedgerow 2, along the eastern edge of the chicken shed field is a dense and wide, mixed species hedge which includes hazel, silver birch and grey willow. It is very probably an ancient hedge derived originally from woodland and still supports a number of woodland indicator species. These include wood sorrel, bracken and foxglove.

**4.3 HABITATS ON ADJACENT LAND****Improved grassland**

Eight fields, mainly to the west of the shed (see Figure 3) will provide the ranging area for the chickens. This field is improved grassland with a limited range of species.

**Standing water**

One pond is situated within 182 metres of the proposed building. This is a small, artificial pond in a fenced enclosure. It measures approximately 15 x 6 metres and lies in a rectangular, deep excavation. 70% of its surface is covered with floating pondweed (*Potamogeton natans*). A number of grey willows (*Salix cinerea*) grow on its banks.

**Hedgerows**

The ranging area for the chickens includes eight fields separated by hedgerows. Although variable in structure, these hedges are mainly mixed, native species hedgerows. Most are double-fenced and protected from browsing but most are sparse in the base of the hedge. Species include hawthorn with rowan and silver birch. Western red cedar has been used to infill gaps in places, although most hedges still contain gaps. Trees are few but include four ash and one goat willow in one hedge.

**4.4 PROTECTED SPECIES****Badgers**

No badger setts are located within 50 metres of the site and there is no evidence that badgers use the site for foraging or for access.



***Breeding birds***

The hedgerows on the site provide some opportunities for breeding birds although these are restricted by the low nature of many of the hedges and their generally open and sparse structure.

Species recorded on the site during the survey included several which are likely to be present and breeding nearby during the spring and summer. These include:

Dunnock  
Wren  
Robin  
Chaffinch  
Blue tit  
Great tit

***Dormice***

Records for this species exist from Penarron Wood, 500 metres to the north west. Interlinking hedgerows directly connect this woodland to the site. However, the hedgerows on the fringes of the building field and those within the ranging area are sub-optimal habitats for dormice. They are all maintained in a tidy, neat condition, often with an open and sparse structure and thus provide only limited opportunities for dormice to feed or nest.

***Great crested newts***

A Habitat Suitability Index was calculated to assess the potential of the nearby pond to support GCN.

The HSI score was 0.598 indicating that the pond holds below average potential for GCN. This is due to the paucity for terrestrial vegetation, its location in a sub-optimal area for GCN, and the lack of nearby ponds.

A further pond lies 400 metres to the south west of the development. This is outside the 250 metre radius within which guidance suggests that assessment for GCN is necessary.

## 5 EVALUATION OF RESULTS AND POTENTIAL ECOLOGICAL IMPACT

### 5.1 HABITATS

#### Improved grassland

The main habitat associated with the construction site and the ranging area is improved grassland. This is of negligible ecological interest and has little potential to support protected species.





### **Hedgerows**

A small length (15 metres) of Hedgerow 1 will be removed to create access. Although this section of hedge is of poor structural quality, all native hedgerows are regarded as BAP habitats reflecting their value to wildlife.

Removal of the hedge may disturb nesting birds and must be carried out outside the nesting season. Removal of the hedge will necessitate the planting of compensatory replacement hedgerows on the site.

Hedgerow 2 will not be disturbed.

### **Standing water**

One small pond lies 180 metres to the west of the new building. It will remain unaffected by the presence of the building although it sits within the ranging area. It is currently fenced which will protect it against increased grazing pressure.

## **5.2 PROTECTED SPECIES**

### ***Badgers***

No active setts were recorded within 50 metres of the site. The development will have no impact on badgers.

### ***Breeding Birds***

One of the bird species recorded during the survey, dunnock, is listed as a UK BAP species. Dunnock is also listed on the amber list of Birds of Conservation Concern.

The nearby hedgerows provide a possible nest site for this species. There may be some temporary disturbance to breeding birds if construction work takes place when birds are breeding but this is likely to be negligible. The removal of any lengths of hedgerow should be within the period September to March to avoid the nesting season. If this is not possible, a site check should be carried out by an ecologist before work starts in order to ensure that no birds are nesting.

### ***Dormice***

The hedgerows on the site do not provide good dormouse habitat due to a lack of food resources and nesting sites and poor structure.



***Great crested newts***

The HSI score indicates that the nearby pond has below average potential to support GCN and the proposals will not have an impact on this species.

Given the relatively low likelihood of GCN being present and the low grade habitat offered by the development site, it is recommended that no further survey work is justified.

***Hedgehogs***

No habitat which could be considered suitable for hedgehogs will be affected by the construction of the shed.

***Reptiles***

No habitat which could be considered suitable for reptiles will be affected by the construction of the shed.

## 6 MITIGATION AND ENHANCEMENT

### 6.1 HABITAT MITIGATION

The loss of 15 metres of hedge will be mitigated by the re-planting and protection of new hedgerow.

The potential for increased grazing pressure by chickens to damage hedgerow ground flora can be readily mitigated through double-fencing of all adjacent hedgerows. The protection of hedgerows which are currently grazed and browsed by sheep and cattle will be a significant ecological gain.

### 6.2 PROTECTED SPECIES MITIGATION

***Bats***

Artificial external lighting should be largely unnecessary but, if needed, should be designed to minimise illumination of the adjacent hedgerows which may be used by bats for foraging. A Lighting Design Scheme has been submitted which addresses the need to minimise impacts to foraging and commuting wildlife.



**Breeding birds**

Although disturbance to breeding birds will be negligible, hedgerow removal should be carried out outside the nesting season.

**6.3 ECOLOGICAL ENHANCEMENT**

The following measures are recommended in order to create ecological enhancements:

- New native hedgerow planting to provide increased habitat connectivity and nesting sites.
- All perimeter hedgerows and other hedgerows within the ranging area to be fenced to prevent access by chickens.
- Erection of bird and bat boxes on or near the site to improve opportunities for these species.

**7 SUMMARY AND CONCLUSION**

An application has been submitted for permission to construct a new building to house free-range poultry and to install associated infrastructure including access track and feed bins. This change of land-use could have implications for habitats and species of ecological significance, thus necessitating an assessment of the ecological value of the site.

In order to evaluate the potential ecological impact of this development, Arbor Vitae were invited to carry out an Extended Phase One Habitat Survey. This included an assessment of the value or potential of the site to support protected species. This report does not however consider any potential impact of manure spreading.

The site was surveyed on the 23 October 2017. A desk study was carried out to ascertain existing nature conservation designations and known records for protected species within the vicinity.

No statutory sites of ecological interest lie within one kilometre of the site. A number of ancient woodland sites exist within one kilometre, the closest being 80 metres to the north east.

The land affected by the proposal, including the site for the new building, the ranging area and the access road, all lie on improved grassland of minimal ecological value.

The site (including the ranging area) is bounded by and intersected by hedgerows, most of which are mixed, native species hedgerows. These are recognised as BAP habitats and are of high ecological value. Most, but not all, of the hedgerows on the site are fenced against stock. A 15 metre section of hedge to the north of the proposed building will be removed to create vehicular access to the field.



All the hedgerows are vulnerable to increased grazing pressure from chickens. The roadside hedgerow is a refuge for a number of woodland herbaceous species.

An assessment was carried out for badgers, breeding birds, dormice, great crested newts, hedgehogs and reptiles. There is no evidence of badgers, hedgehogs or dormice using the site. The survey concluded that no habitat of potential value to dormice, hedgehogs or reptiles would be lost. The loss of a small section of hedgerow may have a minor impact on breeding birds. A nearby pond, 180 metres from the new building but within the ranging area, has been shown to be of 'below average' suitability for great crested newts.

Mitigation for habitat loss will include replanting of the removed section of Hedgerow 1, along with infilling/re-planting the retained section. Mitigation also includes double-fencing of all hedgerows to prevent grazing of ground flora by chickens.

Mitigation and enhancement for protected species includes ensuring that there is no increase in illumination of adjacent hedgerows or trees, removal of hedgerow outside the nesting season and the erection of bird nesting boxes and bat roosting boxes.

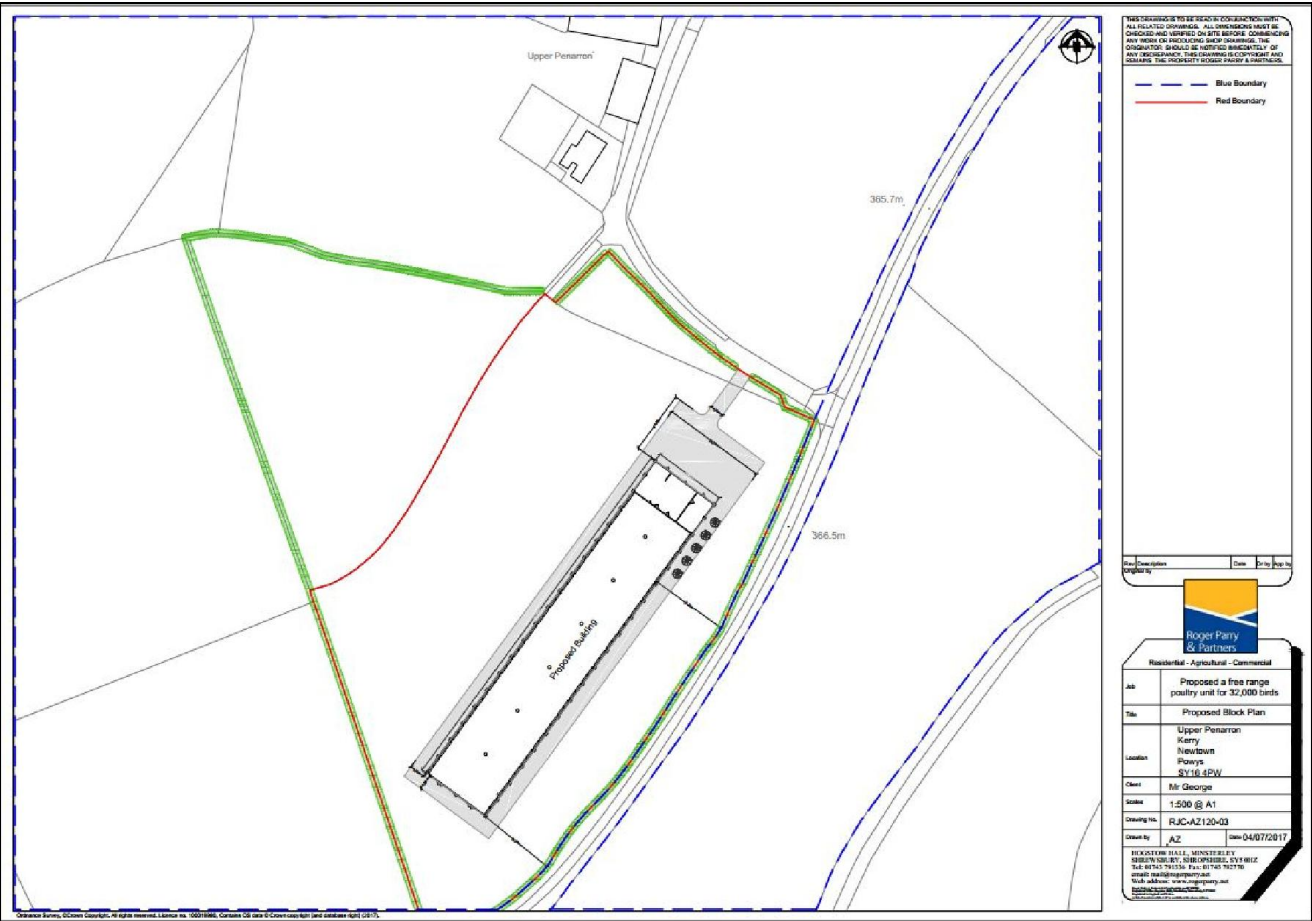


FIGURE 1: LOCATION



Arbor Vitae Environment Ltd  
Lower Betton Farm  
Cross Houses  
Shrewsbury  
Shropshire  
SY56JD

FIGURE 2: SITE LAYOUT



Arbor Vitae Environment Ltd  
Lower Betton Farm  
Cross Houses  
Shrewsbury  
Shropshire  
SY56JD



**FIGURE 4: PRIORITY SPECIES RECORDED WITHIN ONE KILOMETRE (SOURCE: BIS)**

Dist. (m)	Species	NBN Group	Cat.	Recorder	Grid Ref.	Location	Date
710	Accipiter gentilis (Gos...)	bird	CAT1	Unknown-iRe...	SO1387	Ceri Way, C...	05/03/2012
710	Emberiza citrinella (Ye...)	bird	CAT1	Unknown-iRe...	SO1387	Ceri Way, C...	05/03/2012
710	Passer montanus (Tree S...)	bird	CAT1	Unknown-iRe...	SO1387	Ceri Way, C...	05/03/2012
855	Muscardinus avellanarius...	terrestrial...	CAT1	Anne White;...	SO126887	Penarron Wo...	3 records, ...
951	Hyacinthoides non-script...	flowering p...	CAT1	W.I.J. Thor...	SO18I	SW of Kerry	2009
1005	Salmo salar (Atlantic S...)	bony fish (...)	CAT1	Environment...	SO119880	Mount Severn	21/09/2006
1005	Salmo trutta (Brown/Sea...)	bony fish (...)	CAT1	Environment...	SO119880	Mount Sever...	2 records, ...
1614	Hyacinthoides non-script...	flowering p...	CAT1	W.I.J. Thor...	SO1487	Kerry (S of)	18/05/2014
1614	Meles meles (Badger)	terrestrial...	CAT1	P Dunning	SO1487	Cefn Gwyn	1977
1614	Meles meles (Badger)	terrestrial...	CAT1	P Dunning	SO1289	Cefnperfa	1977
1645	Meles meles (Badger)	terrestrial...	CAT1	P Dunning	SO1389	Forest	1977



APPENDIX 1: PHOTOGRAPHS

	<p>GENERAL VIEW OF THE FILED WITHIN WHICH THE BUILDING WILL BE CONSTRUCTED LOOKING SOUTH TO NORTH</p>
	<p>HEDGEROW 1 ALONG NORTHERN EDGE OF BUILDING FIELD</p>
	<p>GAP IN HEDGEROW 1 WHICH WILL BE WIDENED TO CREATE ACCESS ON TO SITE FROM FARM DRIVEWAY</p>





PART OF RANGING AREA SHOWING TYPICAL WELL-MAINTAINED HEDGEROW WITH DOUBLE-FENCING



HEDGEROW IN RANGING AREA. FENCED AGAINST STOCK BUT SHOWING SPARSE STRUCTURE AT BASE



POND 180 METRES SOUTH OF SITE.





GENERAL VIEW OF RANGING AREA TO THE WEST



AS ABOVE SHOWING SPARSE HEDGEROW STRUCTURE



AS ABOVE SHOWING SPARSE HEDGEROW STRUCTURE

