

Preliminary Ecological Appraisal of Land at Red Lane, Burton Green, Kenilworth, CV8 1PB



Cotswold Wildlife Surveys

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QUALITY CONTROL

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The information in this report has been prepared in accordance with the Chartered Institute of Ecology and Environmental Management's (CIEEM) Code of Professional Conduct. The conclusions and recommendations expressed are reasoned judgements based on the evidence.

Every reasonable attempt has been made to comply with BS42020:2013 *Biodiversity – Code of practice for planning and development*, *CIEEM Guidelines for Ecological Report Writing* (CIEEM, 2017) and Bat Conservation Trust's *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edition, Collins, 2016). If there has been deviation from recognised practice, justification/explanation has been given.

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SUMMARY

On land Red Lane in Burton Green, Kenilworth, planning permission is being sought for a single dwelling.

In November 2020, Cotswold Wildlife Surveys was instructed to carry out a Preliminary Ecological Appraisal of the site. This was undertaken to determine the presence of any important habitats or species which might be impacted on by potential development of the site.

A search of publicly available ecological data revealed a number of records of Protected, UK Biodiversity Action Plan (UKBAP) and Local Biodiversity Action Plan (LBAP) species and designated sites within a 1.0 km radius of the land.

Along the rear (northern) boundary runs the Kenilworth to Balsall disused railway line. This is designated as a potential Local Wildlife Site (pLWS). Beyond the Greenway lies Black Waste Wood Local Wildlife Site (LWS). Other non-statutory sites include Pools Wood LWS 900 m northeast, Broadwells Wood LWS 720 m southeast, Poors Wood Complex LWS 480 m northwest, Big Poors Wood LWS 580 m west-northwest, Long Meadow Wood pLWS 700 m south, Bockendon Grange Pond pLWS 600 m northeast, and Stonemoor Wood Ecosite 430 m southwest.

Excluding the disused railway LWS, it is considered that none of the designated sites listed above will be impacted on by the proposed development, as there was no direct connectivity, and they were separated from the application site by arable farmland under continuous cultivation, residential areas and roads, the latter including Red Lane.

Within 1.0 km of the application site there were a number of records of protected species.

Great Crested Newt (GCN) *Triturus cristatus* have been recorded in the pond at Bockendon Grange, and a field pond 319 m to the northeast. The latter contained a small population of GCN in 2014 and is isolated within an arable field, with Kenilworth to Balsall Disused Railway Line LWS in between. A medium population of GCN is present in a pond 300 m due west along Hob Lane, with a small population found in a garden pond along Cromwell Lane 560 m north-northwest. Again, the records are from 2014. Smooth Newts *Lissotriton vulgaris* have also been recorded in the Bockendon Grange pond. Common Frog *Rana temporaria* has been noted along Hodgett's Lane 1.15 km m northwest.

Badger *Meles meles* setts are located on land approximately 750 m to the southwest of Red Lane, with road casualties in the area, including from Red Lane immediately next to the site.

Bat species include Common, Soprano and Nathusius's Pipistrelles *Pipistrellus pipistrellus*, *P. pygmaeus* and *P. nathusii*, unidentified pipistrelle species *Pipistrellus* sp., Whiskered Bat *Myotis mystacinus*, unidentified *Myotis* species, Brown Long-eared *Plecotus auritus*, unidentified *Nyctalus* species, and Noctule *Nyctalus noctula*.

All except Whiskered Bat were recorded by FPCR during surveys in 2014 and 2016 for a residential development on the opposite side of Red Lane.

Records for two notable plant species include Corn Spurrey *Spergula arvensis* and Shepherd's Needle *Scandix pecten-veneris*, these located between 600 m and 800 m north of the site.

The Phase 1 Habitat survey took place on 7th December 2020, in cold, overcast conditions with a light wind.

The site comprised a relatively narrow plot of land. This consisted largely of bare ground with a long mound of scrub down the middle of the site. There was a large Pedunculate Oak *Quercus robur* on the southwest site of the side, bordering the road, with a small oak along the southeastern boundary, and a small Hazel *Corylus avellana*.

The site had been previously overgrown with Brambles *Rubus fruticosus* and tall ruderal vegetation, but this had since been cleared leaving it as bare ground, with patches of poor, semi-improved grassland.

There was also an old Hawthorn *Crataegus monogyna* and Blackthorn *Prunus spinosa* hedge across the front of the site which had been topped to a height of 0.5 m.

To the northeast lay the wooded disused railway line, and to the northwest a block of mature woodland, this dominated by Goat Willow *Salix caprea*, with a few Pedunculate Oak, Elder *Sambucus nigra* and Hawthorn.

The site was not botanically diverse, no rare or notable vascular plants were recorded, and all species were common and widespread. There were no invasive or notifiable species.

A total of five species of bird were observed during the visit, of which all were all Species of Low Conservation Concern (RSPB Green list).

No old or in use birds' nests were found, although the woodland and scrub did provide some suitable habitat for nesting.

The proposed development is unlikely to lead to the loss of bird nesting sites, as the woodland and disused railway is unaffected by the proposed scheme, and there is an abundance of suitable habitat in the surrounding area.

Nevertheless, since all in-use bird's nests and their contents are protected from damage or destruction, any tree and shrub removal that is subsequently required, should be undertaken outside the period 1st March to 31st August inclusive. If this time frame cannot be avoided, a close inspection of the trees and shrubs to be removed will be undertaken prior to clearance.

Work will not be carried out within a minimum of 5.0 metres of any in-use nest, although this distance could be more depending on the sensitivity of the species. Any in-use nest will be allowed to fledge before it is disturbed.

None of the trees within the site supported features such as decay cavities, woodpecker holes, fissures and exfoliating bark, that would be considered suitable for bat roosting and/or hibernation.

The majority of the site was thought to be of low value to foraging or commuting bats, as it was open ground with little to attract insects. Instead, it was considered more likely that bats would forage along the disused railway line and around the wooded areas.

There were no signs of Badger activity within the site, but there was an outlier sett in the neighbouring woodland. This had a single entrance and appeared to have been used relatively recently. The sett lies at least 20 m away from the proposed construction zone, with the tunnel leading northwest, away from the site. A method statement to protect Badgers during the development is recommended.

Also noted were Muntjac Deer *Muntiacus reevesi* tracks and a large Rabbit *Oryctolagus cuniculus* warren within the mound of scrub down the centre of the site.

The site was considered unsuitable for breeding Great Crested Newts and other amphibians, as there were no permanent still water or other wetland features, and the majority of the site was bare ground. The nearest populations of Great Crested Newts were 300 m due west, 319 m to the northeast and 560 m north-northwest. The closest pond lay on the far side of Red Lane, the next beyond the disused railway line and arable fields, and the last beyond a large park home site, fields and woodland.

There was no direct connectivity with the application site, and the indirect connections included habitat far more suitable for amphibians than that present on the application site.

As such Great Crested Newts and/or other amphibian species are highly unlikely to be encountered. Nevertheless, a Precautionary Method of Working for Great Crested Newts is provided.

Reptiles are also unlikely to be encountered, as there was little cover and most of the site was bare ground.

Despite this, care will be taken at all times during any vegetation removal and topsoil stripping, as small mammals could be present. Any small mammals disturbed or uncovered should either be caught by hand and relocated to a safe area, or left to vacate the work site in their own time.

It was also possible to assess the potential importance of the habitats within the application site to invertebrates. Since the majority of the site was bare ground, it was concluded that there was low potential for invertebrate assemblages, in particular those species listed as a priority in the UK Biodiversity Action Plan and/or Local Biodiversity Action Plan.

If excavations are to be undertaken, it should be noted that open trenches could potentially trap wildlife, especially if these fill up with water. If trenches cannot be infilled immediately then they will either be covered overnight or escape routes will be provided. These can be in the form of branches or boards placed on the bottom of the trench, with their upper ends above ground level and touching the sides, or sloping ends left in trenches.

1. INTRODUCTION

1.1 Background and survey objectives

On land Red Lane in Burton Green, Kenilworth, planning permission is being sought for a single dwelling.

In November 2020, Cotswold Wildlife Surveys was instructed to carry out a Preliminary Ecological Appraisal of the site. This was undertaken to determine the presence of any important habitats or species which might be impacted on by potential development of the site.

A search of publicly available ecological data revealed a number of records of Protected, UK Biodiversity Action Plan (UKBAP) and Local Biodiversity Action Plan (LBAP) species and designated sites within a 1.0 km radius of the land.

1.2 Site description

The site comprised a relatively narrow plot of land. This consisted largely of bare ground with a long mound of scrub down the middle of the site. There was a large Pedunculate Oak on the southwest site of the side, bordering the road, with a small oak along the southeastern boundary, and a small Hazel.

The site had been previously overgrown with Brambles and tall ruderal vegetation, but this had since been cleared leaving it as bare ground, with patches of poor, semi-improved grassland.

Tall ruderal species included Common Nettles *Urtica dioica*, Spear Thistle *Cirsium vulgare*, and Broad-leaved Dock *Rumex obtusifolius*, with the grassland consisting of Creeping Fescue *Festuca rubra*, Cocksfoot *Dactylis glomerata*, Creeping Softgrass *Holcus mollis*, meadow-grass species *Poa spp*, and Soft Rush *Juncus effusus*, with forbs represented by Creeping Buttercup *Ranunculus repens*, White Clover *Trifolium repens*, and Common Cleavers *Galium aparine*.

There was an old Hawthorn and Blackthorn hedge across the front of the site which had been topped to a height of 0.5 m, whilst the scrubby mound down the centre of the site was covered by Brambles, Elder and Hawthorn.

To the northeast lay the wooded disused railway line, and to the northwest a block of mature woodland, this dominated by Goat Willow, with a few Pedunculate Oak, Elder and Hawthorn.

There was also a small disused brick structure with no roof along the northwestern boundary, this presumably an old store or animal shelter.

The Ordnance Survey Grid Reference is SP 27189 75452, centred on the middle of the site.

1.3 Proposed works

Planning permission is being sought for the construction of a single dwelling.

2. METHODOLOGY

2.1 Desk study

A detailed desk study was undertaken to determine the nature conservation designations and protected species that had been recorded within a 1.0 km radius of the site. This involved contacting statutory and non-statutory organisations, and then assimilating and reviewing the data provided.

The consultees for the desk study were:

- ❑ Multi Agency Geographic Information (MAGIC) website www.magic.gov.uk;
- ❑ Warwickshire Wildlife Trust website;
- ❑ Warwick District Council planning website;
- ❑ Data.gov.uk website.

2.2 Habitat survey

A Preliminary Ecological Appraisal was carried out across the whole of the survey site. It was conducted using standard JNCC (2003) techniques and methodologies.

The Phase 1 visit took place on 8th October 2018, in mild, overcast conditions with a light westerly wind.

2.3 Protected species survey

During the surveys the potential for other protected and important species was assessed. This included European Protected Species, legally protected species and Local Biodiversity Action Plan Species (and habitats).

2.3.1 *Badgers*

Badgers are generally nocturnal and evidence of their presence in an area often comes from field signs rather than sightings of the animals. Useful field signs include:

- ❑ Setts (main, outlying, annex or subsidiary)
- ❑ Tufts of hair caught on barbed wire fences;
- ❑ Conspicuous Badger paths;
- ❑ Footprints;
- ❑ Latrines – small excavated pits in which droppings are deposited;

- ❑ 'Snuffle holes' – small scrapes where Badgers have searched for insects and plant tubers;
- ❑ Day nests – bundles of grass and other vegetation where Badgers may sleep above ground;
- ❑ Scratch marks on trees (usually near the sett).

Daytime surveys looking for field signs can be carried out at any time of the year, and should be non-intrusive, but nocturnal surveys of setts (if required), are only likely to be effective from April to November, when Badgers are most active, and any cubs present will have emerged.

Main setts

These usually have a large number of holes with large spoil heaps, and the sett generally looks well used. They usually have well used paths to and from the sett and between sett entrances. Although normally the breeding sett is in continual use, it is possible to find a main sett that has become disused because of excessive digging or for some other reason, in which case it is recorded as a disused main sett.

Annex setts

These are always close to a main sett, usually less than 150 m away, and are usually connected to the main sett by one or more obvious, well worn paths. They consist of several holes, but are not necessarily in use all the time, even if the main sett is very active.

Subsidiary setts

These often these have only a few holes, are usually at least 50 m from a main sett, and do not have an obvious path connecting them with another sett. They are not continuously active.

Outlying setts

These usually only have one or two holes, often have little spoil outside the hole, have no obvious path connecting them with another sett, and are only used sporadically. When not in use by badgers, they are often taken over by foxes or even rabbits. However, they can still be recognised as badger setts by the shape of the tunnel (not the entrance hole), which is at least 250 mm in diameter and rounded or flattened oval in shape.

A search for evidence of Badger presence on site was undertaken as part of the Preliminary Ecological Appraisal.

2.3.2 Bats

In order to fully assess bat occupation of a particular site, the Bat Conservation Trust (2016) recommends that information gathered from a desk study of known bat records, and a daytime site walkover, is used to inform the type and extent of future bat survey work, potentially including nocturnal surveys.

The diurnal walkover provides an opportunity to check for signs of occupancy, such as droppings, scratch marks, feeding remains, carcasses, or even animals in residence, whilst nocturnal surveys (if required) allow numbers and species of bats to be confirmed. The latter are also used to determine the presence or absence of bats, where signs of bat activity are indeterminate or absent but the suitability for bat roosting is considered to be low, medium or high.

Roosting places vary depending on the species. Pipistrelles usually inhabit narrow cracks or cavities around the outside of buildings, but they will roost in similar niches inside larger barns. Typical sites include soffit spaces, gaps behind fascia boards and end rafters, crevices around the ends of projecting purlins, under warped or lifted roof and ridge tiles, or in gaps in stone and brickwork where mortar has dropped out.

Larger species such as Brown Long-eared Bats *Plecotus auritus*, Myotis bats (Natterer's *Myotis nattereri* and Whiskered/Brandt's *M. mystacinus/M. brandtii*), and Lesser Horseshoes *Rhinolophus hipposideros*, like to roost in the roof voids of buildings, and can often be found hanging singly or in small groups from ridge boards or roof timbers, especially where these butt up against gable walls or chimney breasts. They especially favour older structures with timber frames. Here they squeeze into tight crevices making them difficult to observe.

Diurnal walkovers can be carried out at any time of the year, but nocturnal surveys should only be undertaken when bats are out of hibernation and in their summer roosts. The recommended period is from May to September inclusive, with May to August optimum and September sub-optimum. The season can be extended into October, although particularly cold weather will render this inadvisable. Indeed, the air temperature at the start of each survey must be at least 10°C or above.

Visits will be a minimum of two weeks apart, and the number of surveys is dependent on the evidence found or the suitability of the site to bats.

Where bats are found, or there is evidence of bat occupation or activity, i.e. that bat use is confirmed, the number and timing of visits will be decided by the ecologist, and will be appropriate for the type of roost.

In general at least two nocturnal surveys will be carried out, both of which can be emergence surveys, or one emergence and one dawn re-entry.

Where there is no evidence of bat presence, and no suitability for roosting, no nocturnal surveys will be needed.

For a site with no evidence but low suitability, just one nocturnal emergence survey is required, this to be in the optimum period.

For medium suitability a minimum of two visits are needed, of which one must be in the optimum period, and one must be a dawn re-entry survey. With high suitability, three visits will be necessary, of which two must be in the optimum period. At least one of these must be a dawn re-entry survey, with the third visit either an emergence or a dawn re-entry.

For sites < 5 ha in size, and/or regularly shaped structures, at least two surveyors must be present, with more surveyors at larger sites and more complex buildings, e.g. those with multiple elevations and/or roof structures.

With no intact buildings on the site, on 7th December 2020 a thorough inspection of the trees from the ground was made by Andy Warren (Natural England bat licence No. 2015-16489-CLS-CLS), including checks for decay cavities, old woodpecker holes, splits, fissures, and/or exfoliating bark.

10x42 binoculars and a Fenix TK75 torch were used for the inaccessible/unreachable areas. On this occasion an endoscope was not used, as there were no crevices or cavities that could not be inspected with a torch or by use of binoculars from a ladder.

The result of the inspection is detailed in Section 3.

2.3.3 Birds

Most resident and migrant birds breed in the spring and summer, although Woodpigeons *Columba palumbus* and Collared Doves *Streptopelia decaocto* nest throughout the year, and as a result could be on eggs in almost any month.

In season, signs of breeding include singing males, display and copulation, birds gathering nesting materials, adults carrying food, calling chicks, etc.

In winter none of these activities may be occurring, so a survey for old nests and/or nest holes is the most reliable method of determining the presence or absence of breeding birds.

This was carried out during the Preliminary Ecological Appraisal, along with a general site walkover to identify the presence of foraging birds.

2.3.4 Great Crested Newts

A survey for Great Crested Newts (GCN) may be indicated when background information on distribution suggests that they may be present. More detailed indicators are:

- ❑ *Any historical records of Great Crested Newts on the site or in the general area;*
- ❑ *A pond on or near the site (within around 500 m), even if it holds water only seasonally;*
- ❑ *Sites with refuges (such as piles of logs or rubble), grassland, scrub, woodland or hedgerows within 500 m of a pond.*

There are several field survey methods which can be employed depending on the time of year:

- ❑ *Bottle or funnel trapping – adults ideally February to May, with June and July sub-optimal, and August to September for detection of larvae (i.e. young);*
- ❑ *Egg search – April to June ideally, with March and July sub-optimal;*
- ❑ *Torch survey – March to May for adults, with February and June to July sub-optimal, and August to September for larvae;*
- ❑ *Netting – March to May for adults, with February and June to July sub-optimal, and August to September for larvae;*
- ❑ *Pitfall trapping – March to May and September for adults, with February, June to August and October sub-optimal;*
- ❑ *Refuge search – April to September ideally, with March and October sub-optimal.*

The latter two methods involve terrestrial habitats, the others aquatic habitats, for which a minimum of 4 visits per year are recommended, with at least 2 visits between mid-April and mid-May to record peak numbers (English Nature, 2001).

None of these methods were carried out as there was nothing to suggest that newts would be present on the site. The nearest populations of Great Crested Newts were 300 m due west, 319 m to the northeast and 560 m north-northwest. The closest pond lay on the far side of Red Lane, the next beyond the disused railway line and arable fields, and the last beyond a large park home site, fields and woodland.

There was no direct connectivity with the application site, and the indirect connections included habitat far more suitable for amphibians than that present on the application site.

2.3.5 Otters

Otters *Lutra lutra* are nocturnal and are active all year round. They are large with an adult male reaching up to 1.2 m from nose to tail, and weighing about 10 kg.

Feeding mainly on fish and amphibians, Otters live by undisturbed waters where there is plenty of cover, mostly by freshwater lakes, rivers and quiet small streams as well as some coasts.

An Otter may use over 40 km of river and needs many resting places throughout this range. A female otter will give birth to 1 to 3 cubs in a natal holt, which is often away from the main river and must be completely undisturbed.

Field signs include:

- ❑ Prints in soft mud;
- ❑ Spraints (faeces);
- ❑ Holts.

A search for evidence of Otter presence on site was undertaken as part of the Preliminary Ecological Appraisal.

2.3.6 Reptiles

Commoner reptiles which may be encountered in rural areas include Grass Snake *Natrix natrix*, Slow-worm *Anguis fragilis*, and Common Lizard *Zootoca vivipara*.

During the winter months, from mid-October to late February or early March, they are in hibernation, usually deep in underground hibernacula, such as holes and cracks in the ground, among rocks or the roots of large trees, down animal burrows, or in piles of rubble or stone.

In the spring and summer they live above ground in well-vegetated places, with Grass Snakes often near or in water. Being cold-blooded all reptiles like to bask, and can often be found in open places.

There are very few signs of reptile presence, but these include:

- ❑ Shedded skin (snakes);
- ❑ Eggs (but not Common Lizard which gives birth to live young).

The site was searched for potential refugia as part of the Preliminary Ecological Appraisal.

2.3.7 Water Voles

The Water Vole *Arvicola amphibius* is the largest of the British voles. It lives in a series of holes or burrows at the water's edge and can be found along the banks of ditches, streams, rivers, lakes and canals.

Although Water Voles live in colonies, the breeding females are territorial, each defining their contiguous territory with latrines during the breeding season. This lasts from March to October.

The Water Vole is herbivorous, feeding primarily on the lush aerial stems and leaves of waterside plants. Its activity is normally confined to the area within two metres of the watercourse, the bankside vegetation in this area not only essential for food, but also for cover from predators.

Water Vole activity can be assessed by looking for the following signs:

- ❑ Burrows;
- ❑ Faeces and latrines;
- ❑ Feeding stations;
- ❑ Runs;
- ❑ Paw prints in areas of soft mud;
- ❑ Feeding 'lawns';
- ❑ Predator field signs.

A search for evidence of Water Vole presence on site was undertaken as part of the Preliminary Ecological Appraisal.

3. RESULTS

3.1 Desk study

3.1.1 Designated sites

There were no statutory sites within 1.0 km of the application land. However, there were several non-statutory sites:

- ❑ Along the rear (northern) boundary runs the Kenilworth to Balsall disused railway line. This is designated as a potential Local Wildlife Site (pLWS), and consists of a disused railway line mostly within a cutting or embankment. The vegetation grades from grass, tall herb, to scrub, and in places, secondary woodland. There are also damp areas with ferns, mosses and lichens and a well managed pond.
- ❑ Beyond the Greenway lies Black Waste Wood Local Wildlife Site (LWS) – designated for its deciduous oak woodland;
- ❑ Pools Wood LWS 900 m northeast – a mature, unmanaged, semi-natural deciduous woodland of oak/ash with occasional Turkey Oak, Sycamore and hybrid Black Poplars;
- ❑ Broadwells Wood LWS 720 m southeast – a birch *Betula sp* and oak *Quercus sp* woodland;
- ❑ Poors Wood Complex LWS 480 m northwest – a mature mixed woodland which is on Natural England’s Inventory of Ancient Woodlands;
- ❑ Big Poors Wood LWS 580 m west-northwest – a mature larch *Larix decidua* plantation;
- ❑ Long Meadow Wood pLWS 700 m south – a remnant woodland of oak *Quercus sp*, birch *Betula sp* and Hazel *Corylus avellana* lying in a shallow valley;
- ❑ Bockendon Grange Pond pLWS 600 m northeast;
- ❑ Stoney Moor Wood Ecosite 15/27 430 m southwest – a small remnant of original woodland of mainly birch, with a few mature oak and a Holly *Ilex aquifolium* understorey.

Excluding the disused railway LWS, it is considered that none of the designated sites listed above will be impacted on by the proposed development, as there was no direct connectivity, and they were separated from the application site by arable farmland under continuous cultivation, residential areas and roads, the latter including Red Lane.

3.1.2 Protected species

Within 1.0 km of the application site there were a number of records of protected species.

Great Crested Newt (GCN) have been recorded in the pond at Bockendon Grange, and a field pond 319 m to the northeast. The latter contained a small population of GCN in 2014 and is isolated within an arable field, with Kenilworth to Balsall Disused Railway Line LWS in between. A medium population of GCN is present in a pond 300 m due west along Hob Lane, with a small population found in a garden pond along Cromwell Lane 560 m north-northwest. Again, the records are from 2014. Smooth Newts have also been recorded in the Bockendon Grange pond. Common Frog has been noted along Hodgett's Lane 1.15 km m northwest.

Badger setts are located on land approximately 750 m to the southwest of Red Lane, with road casualties in the area, including from Red Lane immediately next to the site.

Bat species include Common, Soprano and Nathusius's Pipistrelles unidentified pipistrelle species, Whiskered Bat, unidentified Myotis species, Brown Long-eared, unidentified Nyctalus species, and Noctule.

All except Whiskered Bat were recorded by FPCR during surveys in 2014 and 2016 for a residential development on the opposite side of Red Lane.

Records for two notable plant species include Corn Spurrey and Shepherd's Needle, these located between 600 m and 800 m north of the site.

3.2 Habitat survey

3.2.1 Habitat descriptions

The following habitats were recorded across the site:

- ❑ Scattered trees;
- ❑ Poor semi-improved grassland;
- ❑ Scrub;
- ❑ Bare ground;
- ❑ Building.

These habitats are described below and are shown on the Phase 1 Habitat Survey map in Appendix 1, with the target notes (where applicable) in Appendix 2.

Scattered trees

Across the site there were a few scattered trees. There were two Pedunculate Oaks; a mature specimen along the roadside (Fig. 1) and a smaller tree part way along the southeast boundary (Fig. 2). The only other tree within the site curtilage was a small Hazel (Fig. 3).



Figs. 1 & 2 Pedunculate Oaks



Fig. 3 Hazel tree



Fig. 4 Poor semi-improved grassland

Poor semi-improved grassland

There were a few patches of poor, semi-improved grassland, these including tall ruderals (Fig. 4). Tall ruderal species included Common Nettles, Spear Thistle, and Broad-leaved Dock, with the grassland consisting of Creeping Fescue, Cocksfoot, Creeping Softgrass, meadow-grass species, and Soft Rush, with forbs represented by Creeping Buttercup, White Clover, and Common Cleavers.

Scrub

There was an old Hawthorn and Blackthorn 'hedge' across the front of the site which had been topped to a height of 0.5 m (Fig. 5), whilst the scrubby mound down the centre of the site was covered by Brambles, Elder and Hawthorn, with tall ruderals mixed in (Fig. 6).



Figs. 5 & 6 Topped hedge (L) and scrubby mound (R)

Bare ground

The majority of the site had been covered with Bramble scrub, but this had recently been cleared leaving it as bare ground (Figs. 7 and 8).



Figs. 7 & 8 Bare ground

Building

There was a small derelict brick building along the northwestern boundary, this presumably an old store or animal shelter (Fig. 9).



Fig. 9 Brick building

3.2.2 Flora

The botanical composition of each habitat was typical, and all species recorded were common and widespread.

No rare vascular plants were found, and there were no invasive or notifiable species.

To the northeast lay the wooded disused railway line, and to the northwest a block of mature woodland, this dominated by Goat Willow, with a few Pedunculate Oak, Elder and Hawthorn.

3.3 Protected species survey

3.3.1 Badgers

There were no signs of Badger activity within the site, but there was an outlier sett in the neighbouring woodland. This had a single entrance and appeared to have been used relatively recently (Fig. 10 – Target Note 1).

The sett lies at least 20 m away from the proposed construction zone, with the tunnel leading northwest, away from the site.



Fig. 10 Single entrance outlier sett

3.3.2 Bats

None of the trees on the site supported features suitable for roosting and/or hibernating bats, as they were all too young and/or smooth-barked.

The brick structure was examined and found to have negligible potential for bat roosting, due to there being no roof and no suitable gaps in the brickwork.

The majority of the site was thought to be of low value to foraging or commuting bats, as it was open ground with little to attract insects. Instead, it was considered more likely that bats would forage along the disused railway line and around the wooded areas.

3.3.3 Birds

A total of five species of bird were observed during the visit, all of which were Species of Low Conservation Concern (RSPB Green list).

No old or in-use birds' nests were found, although the trees and scrub did provide some suitable habitat for nesting.

A full list of species noted is given in Appendix 3.

3.3.4 Great Crested Newts

The site was considered unsuitable for breeding Great Crested Newts and other amphibians, as there were no permanent still water or other wetland features, and the majority of the site was bare ground. The nearest populations of Great Crested Newts were 300 m due west, 319 m to the northeast and 560 m north-northwest. The closest pond lay on the far side of Red Lane, the next beyond the disused railway line and arable fields, and the last beyond a large park home site, fields and woodland.

There was no direct connectivity with the application site, and the indirect connections included habitat far more suitable for amphibians than that present on the application site.

As such Great Crested Newts and/or other amphibian species are highly unlikely to be encountered.

3.3.5 Otters

No evidence of Otter was found during the survey.

3.3.6 Reptiles

The site was considered to be of negligible interest to reptiles for the same reason that it is unlikely to be used by amphibians.

3.3.7 Water Voles

No evidence of Water Voles was found on or immediately around the site, and they are considered to be absent.

3.3.8 Invertebrates

Since the majority of the site was bare ground, it was concluded that there was low potential for invertebrate assemblages, in particular those species listed as a priority in the UK Biodiversity Action Plan and/or Local Biodiversity Action Plan.

3.3.9 Other species

No other important or notable species were recorded during the site visit, and the only evidence of mammals were Muntjac Deer tracks and a large Rabbit warren in the central scrubby mound.

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Site evaluation

The site was concluded to be of low wildlife interest.

The majority of the site had been cleared, and therefore held limited value for invertebrates, small mammals, and foraging birds.

None of the trees on the site supported features suitable for roosting and/or hibernating bats, the brick structure was unsuitable for roosting, whilst the majority of the site was thought to be of low value to foraging or commuting bats, as there were few trees and it was relatively small in size.

No evidence of breeding birds, particularly in the form of nests, was recorded on the land, although the scattered trees and scrub were considered to hold some potential for nesting birds.

There were no signs of Otters or Water Voles, but a Badger outlier sett was found in the neighbouring woodland, whilst there was a Rabbit warren in the central scrubby mound. Muntjac Deer tracks were also noted on the land.

The site was considered unsuitable for breeding Great Crested Newts and other amphibians, as there were no permanent still water or other wetland features, and the majority of the site was bare ground. The closest pond lay on the far side of Red Lane, the next beyond the disused railway line and arable fields, and the last beyond a large park home site, fields and woodland. These all provide suitable terrestrial habitat for amphibians, whilst Red Lane acts as a barrier to amphibian dispersal.

Reptiles are also unlikely to be encountered for similar reasons to the amphibians.

It was also possible to assess the potential importance of the habitats within the application site to invertebrates. Since the majority of the site was bare ground, it was concluded that there was low potential for invertebrate assemblages, in particular those species listed as a priority in the UK Biodiversity Action Plan and/or Local Biodiversity Action Plan.

Excluding the disused railway LWS, it is considered that none of the designated sites listed above will be impacted on by the proposed development, as there was no direct connectivity, and they were separated from the application site by arable farmland under continuous cultivation, residential areas and roads, the latter including Red Lane.

4.2 Possible impacts of proposed work and recommendations

Although the Badger sett lies at least 20 m away from the proposed construction zone, with the tunnel leading northwest, away from the site, a method statement to protect Badgers during the development is recommended.

Similarly, despite the unlikely event that Great Crested Newts and/or other amphibian species will be encountered, a Precautionary Method of Working for Great Crested Newts is also recommended.

The proposed development is unlikely to lead to a loss of bird nesting sites, as there is an abundance of suitable habitat in the surrounding area, in particular the adjoining woodland and wooded disused railway line.

Nevertheless, since all in-use bird's nests and their contents are protected from damage or destruction, any tree and shrub removal that is subsequently required, should be undertaken outside the period 1st March to 31st August inclusive. If this time frame cannot be avoided, a close inspection of the trees and shrubs to be removed will be undertaken prior to clearance.

Work will not be carried out within a minimum of 5.0 metres of any in-use nest, although this distance could be more depending on the sensitivity of the species. Any in-use nest will be allowed to fledge before it is disturbed.

Although no evidence of reptiles or amphibians was found, the potential for small mammals to be present on site exists, and thus care will be taken at all times during any vegetation removal and topsoil stripping. Any small mammals disturbed or uncovered will either be caught by hand and relocated to a safe area, or left to vacate the work site in their own time.

If excavations are to be undertaken, it should be noted that open trenches could potentially trap wildlife, especially if these fill up with water. If trenches cannot be infilled immediately then they will either be covered overnight or escape routes will be provided. These can be in the form of branches or boards placed on the bottom of the trench, with their upper ends above ground level and touching the sides, or sloping ends left in trenches.

4.3 Further surveys

If any tree or scrub removal cannot be timed appropriately to avoid the bird nesting period (considered to be March to August inclusive), then further surveys of the trees and/or scrub to be removed will be required.

No other surveys are considered necessary.

4.4 Great Crested Newt Precautionary Method of Working

This document provides details of a strategy of Reasonable Avoidance Measures for the protection of amphibians during the construction process.

- ❑ Prior to any works commencing, contractors will be briefed by an ecologist on the presence of Great Crested Newts in the wider area, and what to do if one is unexpectedly discovered during construction;
- ❑ Vegetation to be removed will initially be cut down to a height of approximately 100 mm, so that the ground beneath can be inspected by an ecologist. If no amphibians are present, the remaining vegetation can be stripped, followed by removal of any turf and topsoil;
- ❑ If an amphibian is found, it will be carefully caught and relocated to a safe, undisturbed area of the land well away from the construction zone. If a Great Crested Newt is found, advice will be sought from Natural England on whether works can proceed without committing an offence;
- ❑ As soon as the footprint of the new dwelling, garage and access has been declared free of animals by the ecologist, the excavations can be undertaken;
- ❑ Any trenches excavated will be covered at the end of the working day to avoid animals falling into the trench. If this is not possible escape routes will be provided. These can be in the form of branches or boards placed on the bottom of the trench, with their upper ends above ground level and touching the sides, or sloping ends left in trenches;
- ❑ Material arising during construction will be stored on hardstanding or off the ground to prevent newts using them as refuges. This will be subsequently removed from site by hand;
- ❑ All new materials will be stored on pallets, preferably on bare ground or hardstanding, to prevent animals using these as refuges. This will be particularly important during the winter months (November to March) when newts seek hibernation sites;

- Since the risk of committing an offence is minimal, to reduce that risk further, working practices will be restricted to the daylight hours when amphibians are least active in the terrestrial environment;
- At the end of the construction process, all items will again be removed carefully from site, checking for amphibians.

A copy of this method statement will be kept on site, as it also includes the contact details of the licenced ecologist.

It should be noted that given the small scale of the works, there will be no requirement for a licence from Natural England.

Furthermore, the construction site does not need to be fenced off with a temporary amphibian exclusion barrier provided the above measures are adhered to.

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APPENDICES

Appendix 1: Phase 1 Habitat Survey Map

Appendix 2: Target Notes

Appendix 3: Bird species list

Appendix 4: Relevant legislation

Appendix 1: Phase 1 Habitat Survey Map



Legend

- Survey boundary
- Poor semi-improved grassland
- Building
- Scattered scrub
- Bare ground
- Target Note
- Scattered trees
- Not to scale

Appendix 2: Target Notes

Target Number	Notes
1	Badger hole and tunnel – outlier sett

Appendix 3: Bird species list

Common name	Latin name
Wren	<i>Troglodytes troglodytes</i>
Robin	<i>Erithacus rubecula</i>
Blackbird	<i>Turdus merula</i>
Great tit	<i>Parus major</i>
Jay	<i>Garrulus glandarius</i>

Appendix 4: Relevant legislation

4.1 *Badgers*

Badgers are protected in Britain by the Protection of Badgers Act 1992. The purpose of this Act is to protect the animals from deliberate cruelty and from the incidental effects of lawful activities which could cause them harm. Under this legislation it is an offence to:

- ❑ Wilfully kill, injure, take, possess or cruelly ill-treat a Badger, or attempt to do so;
- ❑ Interfere with a sett by damaging or destroying it;
- ❑ Obstruct access to, or any entrance of, a Badger sett;
- ❑ Disturb a Badger when it is occupying a sett.

Note that if any of the above resulted from a person being reckless, even if they had no intention of committing the offence, their action would still be considered an offence.

A person is not guilty of an offence if it can be shown that the act was 'the incidental result of a lawful operation and could not have been reasonably avoided'; only a court can decide what is 'reasonable' in any set of circumstances. Penalties for offences under this legislation can be up to six months in prison and a fine of up to £5,000 for each offence.

A Badger sett is defined in the Act as 'any structure or place which displays signs indicating current use by a Badger'. This can include culverts, pipes and holes under sheds, piles of boulders, old mines and quarries, etc.

'Current use' does not simply mean 'current occupation' and for licensing purposes it is defined as 'any sett within an occupied Badger territory regardless of when it may have last been used'.

A sett therefore, in an occupied territory, is classified as in current use even if it is only used seasonally or occasionally by Badgers, and is afforded the same protection in law.

4.2 *Bats*

In England, Scotland and Wales, all bat species are fully protected under the Wildlife and Countryside Act 1981 (WCA) (as amended), through inclusion in Schedule 5. In England and Wales this Act has been amended by the Countryside and Rights of Way Act 2000 (CROW), which adds an extra offence, makes species offences arrestable, increases the time limits for some prosecutions, and increases penalties.

All bats are also included in Schedule 2 of the Conservation (Natural Habitats, & c.) Regulations 1994, (or Northern Ireland 1995) (the Habitats Regulations), which defines 'European protected species of animals'.

The above legislation can be summarised thus (Mitchell-Jones and McLeish, 2004):

- ❑ *Intentionally or deliberately kill, injure or capture (or take) bats;*
- ❑ *Deliberately disturb bats (whether in a roost or not);*
- ❑ *Recklessly disturb roosting bats or obstruct access to their roosts;*
- ❑ *Damage or destroy roosts;*
- ❑ *Possess or transport a bat or any part of a part of a bat, unless acquired legally;*
- ❑ *Sell (or offer for sale) or exchange bats, or parts of bats.*

The word 'roost' is not used in the legislation, but is used here for simplicity. The actual wording is 'any structure or place which any wild animal...uses for shelter or protection' (WCA), or 'breeding site or resting place' (Habitats Regulations).

As bats generally have both a winter and a summer roost, the legislation is clear that all roosts are protected whether bats are in residence at the time or not.

4.3 Birds

In Britain, all wild birds, their nests and eggs are protected under the Wildlife & Countryside Act 1981. There are penalties for:

- ❑ *Killing, injuring or capturing them, or attempting any of these;*
- ❑ *Taking or damaging the nest whilst in use;*
- ❑ *Taking or destroying the eggs.*

4.4 Great Crested Newts

Great Crested Newts are protected under Schedule 5 of the Wildlife & Countryside Act (1981) as amended, and Schedule 2 of the Conservation of Habitats and Species Regulations 2010. As a result of their rarity across Europe, they are also protected under Annexes IIa and IVa of the Habitats and Species Directive, and under the Berne Convention (the Convention on the Conservation of European Wildlife and Natural Habitats).

The above legislation can be summarised thus (Langton *et al*, 2001):

- ❑ *Intentionally or deliberately capture or kill, or intentionally injure Great Crested Newts;*

- ❑ *Deliberately disturb Great Crested Newts or intentionally or recklessly disturb them in a place used for shelter or protection;*
- ❑ *Damage or destroy a breeding or resting place;*
- ❑ *Intentionally or recklessly damage, destroy or obstruct access to a place used for shelter or protection;*
- ❑ *Possess a Great Crested Newt, or any part of it, unless acquired lawfully;*
- ❑ *Sell, barter, exchange or offer for sale Great Crested Newts or parts of them.*

4.5 Reptiles

All common reptiles (Common Lizard, Grass Snake, Slow-worm and Adder *Vipera berus*) are afforded legal protection under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) largely as a consequence of a national decline in numbers associated with persecution and habitat loss.

Under the terms of the Act it is illegal to intentionally kill or injure a reptile.

4.6 Otters

Otters are protected under Sections 9.1 and 9.4, Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), Annex 2 and 4 of the Conservation (Natural Habitats &c.) Regulations 1994 as amended, and are a priority species under the UK BAP. Actions that are prohibited include intentional killing, injuring or taking; and intentional or reckless damage, destruction or obstruction of any structure or place used for shelter or protection.

4.7 Water Voles

As of 12 August 2008, Water Voles have been given full protection under Section 9 of the Wildlife and Countryside Act 1981.

Offences under Section 9 carry a maximum penalty of a fine up to £5000, imprisonment for up to six months, or both, for each animal in respect of which an offence is committed. It is now an offence to:

- ❑ Intentionally kill, injure or take (capture) a Water Vole;
- ❑ Possess or control a live or dead Water Vole, or any part of a Water Vole or anything derived from a Water Vole;
- ❑ Intentionally or recklessly damage, destroy or obstruct access to any structure or place which a Water Vole uses for shelter or protection;
- ❑ Intentionally or recklessly disturb a Water Vole while it is occupying a structure or place which it uses for shelter or protection.

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