Ecological Assessment

of land

at
Lydbury North
Shropshire

(SO353858)

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SUMMARY

Background

Churton Ecology was commissioned to carry out an Ecological Assessment of land (approximately 0.3 ha) proposed for residential development in the village of Lydbury North, Shropshire.

Method of study

A desk study and Extended Phase 1 habitat survey were carried out in order to assess the current ecological value of the site and to identify potential impacts and ecological constraints and make recommendations for general mitigation, compensation and further surveys, as appropriate.

Baseline Ecological Conditions

There are no statutory sites for nature conservation within 1km of the site but there are two County Wildlife Sites (Walcot Park Lake and Lower Down), to the south. These will not be affected by proposed works.

The site comprises poor semi-improved grassland with one hedgerow boundary (west) and a band of immature plantation (east). Another band of immature plantation runs along the south boundary just off site. A mature Oak is present within the hedgerow.

The grassland and plantation are of low ecological value but the hedgerow boundary is of slightly higher ecological value. Hedgerows are a UK priority habitat but this hedgerow does not class as 'important' under the Hedgerow Regulations.

The main feature of current ecological interest on the site is the boundary hedgerow which has the potential to support breeding birds and, although fragmented, may be used by bats as commuting and foraging habitat. The plantations may also be used by these species to a lesser extent. In addition, Badger forages on the site.

Ecological issues

Potential ecological issues associated with the proposed development, on or near the site include i) the disturbance of nesting birds within the breeding season if there is any hedgerow, tree or scrub removal ii) fragmentation of a Badger trail.

Key recommendations

- Any clearance of hedgerow, tree or scrub should, where possible, be carried out in the late summer or winter months to avoid the main bird-nesting season.
- The hedgerow Oak, if possible, should be retained, but root protection measures or appropriate working methods should be implemented in its proximity.
- Opportunities for enhancement of the site post development include planting of native hedgerow along the east and west boundaries and planting of shrubs and trees on site that provide food for wildlife. Erection of bird boxes on buildings is another option.

1 INTRODUCTION

1.1 Background, site description and survey objectives

Churton Ecology was commissioned by Balfours LLP to carry out an Ecological Assessment of land proposed for residential development on the southern edge of the village of Lydbury North in Shropshire (SO353858). The site is currently a small field.

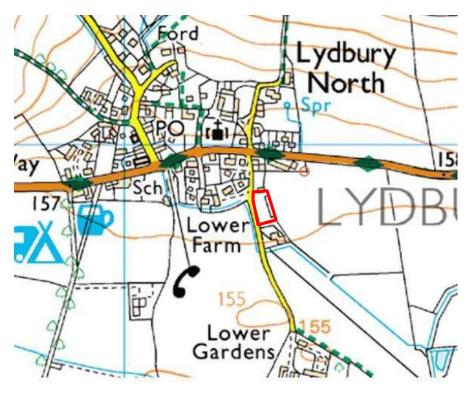


Figure 1: Site location (red)
OS map licence no.100048619

The survey aimed to provide ecological information with relevance to the proposed works by a) analysing previous biological records within a 1km radius of the site centre ii) identifying the presence of special sites for conservation within the 1km surround c) identifying habitats within the site and surrounds, their ecological significance and function d) identifying the presence of protected, priority or notable species and habitats or the potential for these e) assessing the likely significant impacts of the proposed works e) identifying any further survey work or mitigation that might be necessary prior to the submission of a planning application .

1.2 Proposed works

Proposals include the construction of 6-8 houses, possibly in a terrace, and associated infrastructure. The site covers approximately 0.3 ha.

2 METHODOLOGY

2.1 Baseline Ecological Conditions

The ecological baseline was established through a desk study and site survey.

2.2 Desk study

A desk study was carried out to identify protected species and habitats as well as national and local designated sites for nature within 1km of the site. Searches were conducted using the following sources:

- Shropshire Ecological Data Network
- OS maps

OS maps and aerial photographs were used to identify landscape features of potential interest including ponds, streams and ditches, and areas of apparent (semi-) natural value. This is particularly useful when considering links between important areas and potential Great Crested Newt breeding habitats within 250m of the site.

2.3 Habitat survey

A phase 1 survey of the site and immediate surrounds was conducted on 24/4/2014 by Kate Thorne following the JNCC (2010) Phase 1 methodology, see Appendix 1 for habitat map.

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

All hedgerows that might either be removed or otherwise impacted were assessed according to the Hedgerow Regulations (1997).

2.4 Protected species survey

Bat species

A mature Oak in the boundary hedgerow, other immature trees in adjacent plantation and the adjacent small telephone buildings, were assessed for their potential to support bat roosts; only a ground level search to ascertain bat roost features was required.

A general habitat suitability assessment of the site and surrounds was also carried out to determine their value as foraging and commuting habitat.

Great Crested Newt (Triturus cristatus)

Suitable aquatic habitats with the potential to support breeding Great Crested Newt were sought on OS maps, within 250m of the site. Only a 'ditch' at 65m distance was noted and assessed.

The habitats on site were assessed for their suitability to provide resting places or areas suitable for shelter or protection (referred to as terrestrial habitats) and a limited search of refugia (stone piles) was made. The potential for newts to traverse the site and any dispersal limitations that might interrupt such migrations were also considered.

Otter (Lutra lutra)

A nearby stream was assessed for its potential to support Otter but no detailed search was conducted for this species since the stream appeared unsuitable.

Dormouse (Muscardinus avellanarius)

Suitable woodland and hedgerow habitats were noted within or adjacent to the site. Dispersal links and barriers to suitable woodland habitats were also considered in relation to hedgerow/woodland links.

Badger (Meles meles)

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

Water Vole (*Arvicola amphibious*)

No search was conducted for this species since no immediate suitable habitat was encountered i.e. a suitable water feature within at least 10m of the site [the recommended minimum buffer for the protection of animal burrows]).

Reptiles

Suitable habitat within the site and adjacent surrounds, with potential to support the 'widespread' reptile species, was sought. Areas were assessed for their potential to provide permanent, seasonal and/or temporary reptile habitats. Dispersal links and barriers between more abundantly suitable habitats were also considered in relation to mobile and/or transient species.

Birds

Habitats with potential to support common, priority or Schedule 1 species of bird were sought within the site and surrounds. A list of bird species using the site and adjacent

surrounds was established during the survey and old nests encountered were attributed to species, where possible.

Other protected or priority species

The walkover process is generally designed to pick up on anything that may be encountered or inferred from habitat suitability. However, for protected and priority species that might require specialist survey, (e.g. invertebrates, nocturnal, cryptic or migratory animals) a botanical/habitat feature survey generally provides a sound basis for predicting any further survey work that may be necessary.

3 RESULTS (Baseline Ecological Conditions)

3.1 Desk study

3.1.1 Designated Nature Conservation Sites

There are no statutory sites for nature conservation in the 1km surround but there are two County Wildlife Sites.

Table 1: non statutory sites for nature conservation in the 1km surround				
Site name	Legislation	Ecological value	Distance	Details
Walcot Park Lake WS	N/A	County	750m at nearest point	Large artificial lake and wet woodland; 22.09 ha. SO348853
Lower Down WS	N/A	County	1km plus, at nearest point	Unimproved MG5 pasture with species rich ponds; 14.5ha. SO343847

Other sites

The nearest pool is at nearly 500m distance to the south-east.

3.1.2 Protected and priority species

Note: the site falls within the monad SO3585.

The findings of both protected and priority species have been summarised below, also see map of their distribution in Appendix 3.

Protected species

Otter (*Lutra lutra*) has been recorded from the River Kemp (SO3685) and Walcot Lakes/Park (SO3485), in 2000.

There are recent records for several specially protected birds from the site monad and the wider surround: Common Kingfisher (Walcot Park, SO3585), Eurasian Hobby (SO3585 and

SO3587), Red Kite (SO3585, SO3785, SO3586 and SO3587), Common Crossbill (SO3585 and SO3785) and Barn Owl (SO3587).

There are no records for any bat species, Great Crested Newt (*Triturus cristatus*), Dormouse (*Muscardinus avellanarius*), Water Vole (*Arvicola terrestris*), Badger (*Meles meles*) or any reptiles.

UK priority species

There are recent records from the site monad and the wider surround for Tree Pipit, Lesser Spotted Woodpecker, **Yellowhammer**, Grasshopper Warbler, Spotted Flycatcher, **House Sparrow**, Grey Partridge, **Tree Sparrow**, **Dunnock**, Marsh & Willow Tit, **Bullfinch**, **Song Thrush**, **Starling**, Wood Warbler and Northern Lapwing; those highlighted are the species that are most relevant to this development.

Pine Martin (2 animals) has been recorded from Lydbury North (SO3586) in 2006.

White-letter Hairstreak (butterfly) has been recorded in SO3687 (in 2003) and from SO3485 (in 1996).

There are two old records for Spreading Bellflower in SO3687/SO38; this species still survives in the South Shropshire Hills and is often associated with hedgerows.

Local priority species

There are recent records for several local priority bird species in the area: Mallard, Teal, Shoveler, Tufted Duck, Meadow Pipit, Swift, Stock Dove, **House Martin**, Snipe, Kestrel, Grey Wagtail, Wheatear, Redstart, Willow Warbler, Green Woodpecker, Golden Plover, Sand Martin, Mistle Thrush and Woodcock.

The most relevant local priority plants (axiophytes) in the area are grassland species [Common Lady's-mantle, Slender Parsley-piert, Betony, Spring Sedge, Woolly Thistle, Wild Basil, Changing Forget-me-not, Bird's-foot, Burnet-saxifrage, Flattened Meadow-grass, Common Fleabane, Devil's-bit Scabious, Hop Trefoil and Yellow Oat-grass] and woodland ones [Moschatel, Wood Anemone, Hard Fern, Hairy Brome, Wood-sedge, Climbing Corydalis, Alternate-leaved Golden-saxifrage, Golden-scaled Male-fern, Bearded Couch, Broad-leaved Helleborine, Wood Horsetail, Spindle, Sweet Woodruff, Bluebell, Slender St John's-wort, Yellow Archangel, Hairy Wood-rush, Great Wood-rush, Common Cow-wheat, Wood Melick, Wood-sorrel, Hard Shield-fern, Soft Shield-fern, Goldilocks Buttercup, Sanicle, Greater Chickweed, Small-leaved Lime, Large-leaved Lime and Wood Vetch]. In addition, there are records for 2 arable axiophytes, 4 heathland ones and 19 wetland ones. Other species include Brittle Bladder fern (walls) and Trailing St John's-wort (hedge banks).

There are 1996 records for several priority beetles in Walcot Park (SO3485).

3.1.3 Schedule 9 ('invasive') species

Non-native invasive plants recorded in the area include Japanese Knotweed, Himalayan Balsam, Few-flowered Garlic and Rhododendron.

Invasive fauna species include Chinese Water-deer (old records in SO3484), Black Swan and Canada Goose.

3.2 Habitat survey

3.2.1 Site habitat types

The range of habitats on the site can be summarised as follows:

- Poor semi-improved grassland
- Hedgerow
- Brick wall
- Plantation

These are represented on the habitat map in Appendix 1, with numbered target notes. All plants are listed in Appendix 2. In the text species are referred to using their English names (Appendix 2 provides a list of their scientific names). Nomenclature follows Stace, C. (2011) New Flora of the British Isles.

3.2.2 Site habitat descriptions

Poor semi-improved grassland

The site is largely a small grassland field which has been agriculturally improved. The sward has been grazed and is species-poor with only a few grasses [Yorkshire-fog (dominant) and Rye-grass] and herbs [Dandelion, Daisy, Clover, Ribwort Plantain and Hogweed]. A few 'nuisance' weeds are present: Creeping Thistle and Spear Thistle.

Hedgerow

A high hedgerow (target note 3) runs along much of the west boundary (lane-side); Blackthorn is dominant with some Elder and Hawthorn. Negative features to this hedgerow are i) it is fragmented at either end from other hedges ii) only one woodland ground flora species from the Hedgerow Regulations list is present – Wild Arum. Positive features are i) it runs with a parallel hedgerow ii) it has a single mature tree (Oak).

However, it does not class as an 'important' hedgerow (as per the Hedgerow Regulations).



Photograph 1: roadside hedge (right) with single Oak (red arrow); immature on site plantation (left); immature off site plantation (far end); semi-improved grassland; viewed from the north-east end.

<u>Plantation</u>

A band of very immature trees and shrubs runs along much of the east side of the field (target note 2). Tree species include Birch, Oak, Bird Cherry, Apple, Pear (?), Field Maple and Ash; shrub species include Sallow, Hawthorn, Blackthorn, Dogwood, Spindle, Buddlea and Viburnum sp.

At present the woody species height is around 5m and the trees are little more than saplings. The canopy is still relatively open and allows a ruderal ground flora to dominate e.g. Rosebay Willowherb, Nettle, Broad-leaved Dock and Hogweed with some Bramble and Raspberry.

Brick wall

There is a very short section of brick wall forming the west boundary in the north.

3.2.3 Habitats in the site surrounds

Large expanses of arable land lie to the east and south-west, with a few trimmed hedges in this landscape. Residential areas lie to the west (on the opposite side of the lane).

Immediately to the north is a telephone building, with a small pasture to the north again.

Immediately to the south is a narrow plantation with farm buildings to the south again. A very small stream/ditch runs along the lane-side (on the opposite side of the lane) and turns to run south of the farm buildings.

Buildings

The telephone exchange building is brick built with a lower west section that is slate tiled; the east section has interlocking cement tiles. All tiles appear to be close fitting as are the soffit boxes around the eaves, the gable verges and the ridge tiles.

Plantation

The plantation adjacent to the south boundary (TN5) is older than the site plantation although also immature; it has grown to a height of around 10m with Field Maple trees dominant. There are no potentially large tree species in this area; other species include Elder, Viburnum sp and Hawthorn. The ground flora has become more typical of an older plantation with frequent lvy covering the ground and some Wild Arum.

3.2.4 Flora

All the plant species found during the survey are common species, see Appendix 2 for full list.

3.3 Protected species survey

3.3.1 Bats

There are no bat roost features in the mature Oak or any other trees close to the site. The small telephone exchange building has low potential for bat roosts.

The site hedgerow and plantations on or close to the site have potential to provide foraging habitat and commuting routes for bats.

3.3.2 Great Crested Newt

No suitable standing water-bodies were noted near the site. The site itself comprises poor terrestrial habitat although there are some potential refugia; a limited search of a few stone proved negative.

3.3.3 Otter and Water Vole

There is no habitat present on site which is suitable for these species. The nearby stream, being ditch-like and very small, with steep open sides, also appears unsuitable.

3.3.4 Dormouse

The trimmed nature of most hedgerows in the surrounds, and the fragmentation of the site hedgerow, makes the site and immediate surrounds unsuitable for Dormouse.

3.3.5 Badger

A Badger trail was noted passing under the east fence near its south end, with a latrine in the arable field margin (TN4); faint trails run along the arable field margin in either direction. A second trail was noted passing though the west hedge, also in the south part of the field but this did not link with any trails to the west. There was a hint of a trail, between the two obvious sections, along the south margin of the field. No other signs and no setts were found.

3.3.6 Reptiles

The habitat present is unsuitable for all the 'widespread' reptile species, being too intensively managed. The grassland bank (verge outside the site hedgerow) appears to have greater potential but it appears to be isolated from any other suitable habitat.

3.3.7 Birds

Only a very few common bird species were seen, using the hedgerow and plantations and/or the immediate surrounds e.g. Song Thrush, House Sparrow and Dunnock (all UK priority species), Wren, Blackbird, Great/Blue Tit, Blackcap and Wood Pigeon.

The field appears unsuitable for ground nesting birds (too small).

3.3.8 Other priority species

Since the plant diversity is low to moderate, it may be reasonable to assume that no important invertebrate habitats will be affected by the proposed works.

4 ECOLOGICAL EVALUATION

4.1 Baseline evaluation criteria

An ecological evaluation was undertaken using a combination of criteria for habitats and species based on the results obtained through desk study and field survey. The general framework follows that described by the Institute of Ecology and Environmental Management (IEEM, 2006) (see Table 1 below).

Where relevant, the evaluation was made with reference to the statutory protection afforded to species and habitats.

Legal protection does not always correspond to conservation value. Some species (e.g. badgers) are protected for reasons of animal welfare rather than conservation. Others are of national conservation value but are not protected by law (e.g. some Red Data Book species and UK BAP species).

Table 2: Determination of Ecological Value		
Ecological Value	Description and Examples	
	Habitats or features that have high importance for nature conservation, such	
	as statutory designated nature conservation sites of international or national	
High	importance or sites maintaining viable populations of species of international	
	or national importance (e.g. Red Data Book species; European protected	
	species).	
	Sites designated at a county or district level, e.g. Local Wildlife Site (LWS),	
	ancient woodland site, ecologically 'important' hedgerows or ecological	
Medium	features that are notable within the context of a region, county or district (e.g.	
	a viable area of a Priority Habitat on the county BAP or a site that supports a	
	viable population of a county BAP species).	
	Sites of nature conservation value within the context of a parish or	
Low	neighbourhood, low-grade common habitats, such as arable fields and	
	improved grasslands and sites supporting common, widespread species.	

4.2 Statutory and non statutory nature conservation sites in the locality

There are no statutory sites one within 1km of the site but there are two County Wildlife Sites; these are considered of be of medium ecological value.

4.3 Habitats within and close to the site

Grassland

The main habitat to be lost is poor semi-improved grassland which is not a priority habitat and is considered to be of low ecological value.

Hedgerows

The site supports hedgerow which may or may not be disturbed to provide access.

Hedgerows are a UK priority habitat but the site hedgerow does not class as ecologically important (as per the Hedgerow Regulations). The hedge has become degraded as wildlife habitat by fragmentation such that it no longer links to any other hedge. Whilst it continues to have potential for breeding birds (scrubland species) and foraging bats, its value as a wildlife corridor and a commuting route for bats has become reduced. The hedge is, therefore, considered to be of low ecological value.

Plantation

The plantation is considered to be of low ecological value; it may have some limited value for breeding birds and foraging bats.

Its loss is considered likely, particularly as there are several potentially tall tree species present.

4.4 Protected species

4.4.1 Bats

No potential bat roost features were noted in any of the trees or buildings on or close to the site.

The site hedgerow and plantations potentially provide foraging habitat for bats; as linear features they may also be used by commuting bats but their value as such has been reduced by fragmentation. The semi-improved grassland provides poor foraging habitat.

4.4.2 Great Crested Newt

Given the lack of existing records and the distance of almost 500m from a pool, it is considered highly unlikely that Great Crested Newt is present within the site.

4.4.3 Otter and Water Vole

Otter has been recorded in the surrounds but, given the lack of suitable habitat on or close to the site, it is considered highly unlikely that these two species are present within or close to the site.

4.4.4 Dormouse

Given the lack of suitable habitat, habitat links and any existing records, it is considered highly unlikely that this species is present within or close to the site.

4.4.5 Badger

Although there is a trail across the south edge of the site the use of the site for foraging appears minimal and there is no sett on or near the site. Badger may sometimes (opportunistically) cross the site for foraging.

4.4.6 Reptiles

Given the lack of links to the grassland verge (which has some suitability) and any existing records, it is considered highly unlikely that reptiles are present within the site.

4.4.7 Birds

A number of priority and common scrubland/hedgerow bird species are likely to use the boundary hedgerow and, to a lesser extent, the plantations in or close to the site for nesting (and/or foraging). The site lacks suitable habitat for specially protected birds e.g. Barn Owl (which has been recorded in the area). The site also appears unsuitable for ground nesting birds to breed (too small).

4.5 Survey limitations

There were no significant survey limitations.

4.6 Legal status

Bats

All UK bat species are protected under both UK and European Law. 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 group of bats; damage, destroy or cause deterioration to 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 ability to function, regardless of deliberate, intentional or reckless action. A roost is defined loosely as a place used for the purposes of breeding, resting or sheltering. 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 European disturbance/roost deterioration laws. It is therefore the duty of the 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/s.

<u>Badger</u>

Badgers are protected under the Protection of Badgers Act 1992. It is an offence to wilfully kill, injure, capture, possess or cruelly ill-treat a badger, or attempt to do so. It is also an offence to damage, destroy or obstruct a badger sett which shows signs of current use by badgers, or to disturb a badger within a sett.

Current use could be interpreted as a sett showing signs of recent occupation, regardless of whether the sett is in immediate occupation.

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.

5 POTENTIAL IMPACTS AND RECOMMENDATIONS

5.1 Introduction

Wherever possible, negative ecological impacts from developments should be avoided. Where these are unavoidable then mitigation and compensation measures should be proposed. This is of particular importance where there is any presence of or potential for protected species. In addition, it is best practice to seek positive biodiversity benefits through enhancement measures, in particular with regard to Priority Habitats and Species listed on the national and local Biodiversity Action Plans and the NERC Act 2006, and protected species.

The Local Planning Authority is now required to actively seek in development proposals, measures that aim to promote appropriate Priority Habitats and Species listed in the UK Biodiversity Action Plan. The provision of compensation/enhancements helps local planning authorities in meeting requirements as stipulated under the National Planning Policy Framework (2012), which states that sustainable development should seek to achieve net gains in bio-diversity for nature.

5.2 Habitats

The County Wildife Sites are highly unlikely to be affected.

On site there will be loss of low value habitat (grassland, plantation and fragmented hedgerow); this will result in a temporary negative impact of negligible significance.

Although mitigation for this loss is not considered essential, future opportunities for wildlife can be achieved through enhancements, see below. It is recommended that the mature Oak in the west hedge is retained, and its root protection zone protected during works.

5.3 Protected species

No development related impact on Great Crested Newt, Otter, Water Vole, Dormouse or reptiles can be reasonably predicted and no further survey or assessment is required.

5.3.1 Bats

Any negative impact on bats, through loss of hedgerow, is likely to be temporary and of negligible significance.

5.3.2 Badger

Any negative impact on Badger through fragmentation of an existing trail, is likely to be temporary and of negligible significance. However, the trail could be retained by running a garden along the south margin of the site.

5.3.3 Birds

Any negative impact on birds, through habitat loss, is likely to be temporary and of negligible significance. However, development work that may remove, damage or destroy a nest of a wild bird whilst it is in use should be avoided as it may constitute an offence.

Any clearance of hedgerow, scrub or trees should, therefore, be carried out i) within the bird nesting season, after a negative inspection for nests has been undertaken ii) outside the bird nesting season between July 31st and March 1st iii) after access into the hedge/tree has been suitably obstructed with netting prior to March 1st.

5.4 Habitat compensation and enhancement recommendations

Habitats

New native hedgerows could be planted along the east and west boundaries of the site, using woody species typical of the area, see table 3 below.

Scattered shrub/small tree planting across the site could include species that flower and/or fruit profusely (to provide food for birds) with care taken to avoid invasive species e.g. Dogwood and Snowberry, or species that are poor for wildlife e.g. Cypress species. Any garden hedgerow planting should avoid use of Cypress or Privet (poor for nesting); Hornbeam and/or Beech are recommended as they are native species (although not native to Shropshire) and produce a tidy manageable hedge.

Table 3: Native species recommended for hedge planting				
Taxon	Common name			
Corylus avellana	Hazel			
Crataegus monogyna	Hawthorn			
Euonymus europaeus	Spindle			
Viburnum opulus	Guelder Rose			
Acer campestre	Field Maple			
llex aquifolium	Holly			

Species

Several priority birds recorded in the area are dependent on buildings. Bird boxes could be placed on any new building e.g. a Sparrow 'terrace', House Martin nest cups and/or traditional boxes for small birds. Internal nestboxes can be fitted for Swifts, House Sparrow or Starling.

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5.5 Further survey recommendations

No further surveys are recommended.

6 REFERENCES

Altringham J. (2009) British Bats Collins

Bat Conservation Trust (2012) Bat Surveys Good Practice Guidelines 2nd ed. BCT

Beebee, T. and Griffiths, R. (2000) Amphibians and Reptiles Collins New Naturalist

English Nature (2009) Badgers and Development

English Nature (2001) Great Crested Newt Mitigation Guidelines

Gent T. and Gibson S. (2003) *Herpetofauna Workers' Manual* Joint Nature Conservation Committee

Hedgerow Regulations (1997) Crown Copyright.

JNCC (1993). Handbook for Phase 1 Habitat Survey. A technique for environmental audit (reprint). Joint Nature Conservation Committee, Peterborough.

Mitchell-Jones A.J. and McLeish A. (2004) *Bat Worker's Manual* Joint Nature Conservation Committee

Mitchell-Jones A.J. (2004) Bat Mitigation Guidelines English Nature

Natural England (2009) Interpretation of 'Disturbance' in relation to Badgers occupying a sett

Stace, C (1991). New Flora of the British Isles. Cambridge University Press

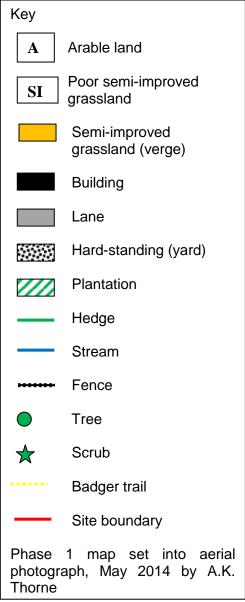
JNCC (2007) *UK BAP species and habitats* jncc.defra.gov.uk www.nbn.org.uk (National Biodiversity Network website for protected species distribution).

Bright, P., Morris, P., Mitchell-Jones, T. (2006) *The Dormouse Conservation Handbook 2nd edition* English Nature

Appendix 1

Phase 1 habitat map





Target notes

telephone exchange building TN1:

TN2

very young plantation
tall untrimmed hedge with single mature Oak tree
Badger latrine at end of trail in arable field
immature plantation just off site TN3

TN4:

TN5

Appendix 2

Plant list

Taxon	Vernacular	Comment
Acer campestre	Field Maple	plantation
Anthriscus sylvestris	Cow Parsley	hedge, plantation
Arrhenatherum elatius	False Oat-grass	brick wall
Arum maculatum	Lords-and-ladies	hedge, plantation
Ballota nigra	Black Horehound	hedge
Bellis perennis	Daisy	grassland
Betula sp.	Birch	plantation
Cardamine hirsuta	Hairy Bitter-cress	brick wall
Chaerophyllum temulum	Rough Chervil	hedge
Chamerion angustifolium	Rose-bay Willowherb	plantation
Cirsium arvense	Creeping Thistle	grassland
Cirsium vulgare	Spear Thistle	grassland
Cornus sanguine	Dogwood	plantation
Crataegus monogyna	Hawthorn	hedge, plantation
Ficaria verna	Lesser Celandine	hedge, plantation
Fraxinus excelsior	Ash	plantation
Galium aparine	Cleavers	plantation
Geranium robertianum		plantation
Heracleum sphondylium	Hogweed	grassland, plantation
Holcus lanatus	Yorkshire-fog	grassland
llex aquifolium	Holly	hedge, plantation
Lamium purpureum	Red Dead-nettle	hedge
Lapsana communis	Nipplewort	hedge, plantation
Lolium perenne	Perennial Rye-grass	grassland
Plantago lanceolata	Ribwort Plantain	grassland
Plantago major	Greater Plantain	grassland
Prunus avium	Wild Cherry	plantation
Prunus padus	Bird Cherry	plantation
Prunus spinosa	Blackthorn	hedge, plantation
Quercus sp	Oak	hedge, plantation
Ranunculus repens	Creeping Buttercup	wall
Rubus fruticosus agg.	Bramble	plantation
Rubus idaeus	Raspberry	plantation
Rumex obtusifolius	Broad-leaved Dock	grassland, plantation
Salix sp	Sallow	plantation
Sambucus nigra	Elder	hedge, plantation
Senecio vulgaris	Groundsel	brick wall
Stellaria media	Common Chickweed	hedge
Stellaria neglecta	Greater Chickweed	hedge
Taraxacum agg.	Dandelion	grassland
Trifolium repens	White Clover	grassland
Urtica dioica	Common Nettle	hedge, plantation

Veronica persica	Common Field-speedwell	grassland

Appendix 3

Map showing the location of county Wildlife Sites and protected species on the site and surrounds at Lydbury North

Note: detail of records available on request.

