Proposed Residential Development on land associated with Oakhill College, Wiswell Lane, Whalley, BB7 9AF

Ecological Survey & Assessment

September - November 2014

Ribble Ecology ref: RB-14-107
Prepared by: Ms L Bousfield BSc (Hons) MCIEEM
Date checked & released: 24/11/2014
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SUMMARY

This report presents the results of an ecological survey and assessment, undertaken for land and features associated with a plot of proposed residential development land at Oakhill College, Wiswell Lane, Whalley, BB7 9AF.

The scope of survey and assessment has included consideration of: a) designated sites; b) vegetation and plant species; c) protected species of fauna; and d) species and habitats of principal importance, as listed in Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

As summarised in Section 4.1 of this report, the results have shown that there are no substantive ecological concerns or constraints, but there are minor considerations at the site. In brief these comprise: a) the presence of hedgerows and mature trees along the southern boundary, which require retention and protection where possible, b) low potential value for roosting bats at three of the boundary trees, plus value for foraging bats alongside the boundary trees and shrubs, and c) likely occurrence of nesting birds in hedgerow shrubs and trees.

Practical and achievable precautionary protection measures are presented in Section 4.2.1 of this report and it is respectfully recommended that their implementation is enforced by means of one or more suitably worded planning conditions. This will ensure that the planning authority demonstrates due consideration of wildlife legislation and policy when determining the application and it will ensure that the work is compliant with wildlife legislation and policy at all times during its implementation.

Further, Section 4.2.2 describes additional considerations and opportunities to help retain or reinstate and protect long-term biodiversity value. Implementation of such measures would demonstrate accordance with paragraph 118 of the National Planning Policy Framework 2012 (NPPF 2012) and should be regarded favourably if such recommendations are applied.
1.0 INTRODUCTION

1.1 Overview

In September 2014, Ribble Ecology Ltd. was commissioned to undertake an ecological survey and assessment for land associated with Oakhill College, Whalley.

The land is centred at grid reference SD 73734 36727 and the request for ecological appraisal was made in preparation for an intended planning application for residential development.

A plan showing the red-line boundary of the survey area was supplied with the commission. A plan showing the proposed layout of the residential development was supplied in November 2014.

Hereafter, the land within the red-line boundary is termed ‘the Site’ or ‘the Application Site’ throughout the rest of this report.

1.2 Objectives

Ribble Ecology identified the objectives of the survey and assessment to be as follows:

- Investigate all vegetation and habitat types, in accord with the JNNC guidelines\(^1\) and compile one or more plant species lists where appropriate.
- Identify any occurrences of rare and/or protected plant species at the Site and also any non-native invasive plant species as listed on Schedule 9 of the Wildlife and Countryside Act 1981 (WCA 1981).
- Using aforementioned plant species lists, identify National Vegetation Classification (NVC) communities and ‘habitats of principal importance’ under the NERC Act 2006.
- Undertake habitat appraisal for protected species such as: roosting, commuting & foraging bats; Badger; Water vole; Great crested newt and Schedule 1 birds.
- Where appropriate conduct additional surveys to conclusively determine the presence or absence of protected species (e.g. undertake daylight and nocturnal bat work), with such work also determining information about abundance and locations of occurrence.
- Similarly, undertake habitat appraisal and survey work in relation to other wildlife, such as breeding birds and ‘species of principal importance’ listed in the NERC Act 2006.
- From the survey results, identify any ecological concerns or constraints and provide feedback on appropriate mitigation and compensation measures to avoid impacts on protected species and other local wildlife.

2.0 METHODOLOGIES

2.1 Personnel

All survey and assessment has been undertaken by Ms Lorna Bousfield BSc (Hons) MCIEEM, who is Principal Ecologist at Ribble Ecology Ltd and holds Natural England class survey licenses (class licence registration number CLS001700) in respect of Great crested newt (WML CL08 Level 1) and bats (WML CL18 - Bat Survey Level 2). She is an experienced consultant with a wide skill base in respect of ecological surveying and assessment, including plant species and habitat identification, detection of protected

\(^1\) Ref: Handbook for Phase 1 Habitat Survey – a technique for Environmental Audit” published by the Joint Nature Conservation Committee (JNCC 2003).
faunal species, assessment of potential impacts in accord with IEEM Guidance on EcIA’s and also the design and implementation of mitigation, compensation and habitat enhancement schemes.

2.2 Desk Study

A range of desk and internet based resources were used to obtain background information prior to attending the Site, with the internet resources being as follows:

- Bing Maps [www.bing.com/maps] and Google Earth 5 [http://earth.google.co.uk] for aerial photographs, including historic photographs in the case of Google Earth.
- Multi-Agency Geographic Information for the Countryside (MAGIC) collaborative database website [http://magic.defra.gov.uk/MagicMap.aspx], for information on key environmental schemes and statutory designations.
- National Biodiversity Network (NBN) Gateway [www.nbn.org.uk], for collated low-resolution records of protected species and species of principal importance.
- Maps & Related Information Online (MARIO) – Lancashire County Council’s interactive mapping website [http://mario.lancashire.gov.uk/agsmario/].
- Bing Maps [www.bing.com/maps] for a 1:25,000 Ordnance Survey map extract.
- The current Local Plan Maps forming part of the ‘Districtwide Local Plan’ for Ribble Valley Borough, for land designations including occurrences of locally designated sites. (https://www.ribblevalley.gov.uk/info/200364/planning_policies/432/districtwide_local_plan)

In addition, the Ribble Valley Borough Council ‘planning application search’ website was used in order to obtain information about existing planning applications in the nearby surrounding area, including any ecology works submitted in accompaniment to the applications (https://www.ribblevalley.gov.uk/planningApplication/search). This was prompted by knowledge that adjacent land was in the process of being developed for residential dwellings. The following planning applications were found to be of notable relevance:

- Application ref. 3/2011/0111 (https://www.ribblevalley.gov.uk/planningApplication/21603): land to the East of Clitheroe Road (Lawsonsteads) Whalley. Outline application for a mixed use development comprising Residential (C3), Nursing Home (C2) and Primary School (D1), and associated access, car parking and ancillary landscaping. This included a phase 1 habitat survey, plus survey and assessment reports for bats and birds. (Status: Refused).
- Application ref. 3/2012/0327 – comparable to above (Status: Refused).
- Application ref. 3/2012/0687 (https://www.ribblevalley.gov.uk/planningApplication/23243): Land to the East of Clitheroe Road (Lawsonsteads) Whalley. Outline application for mixed use development comprising residential (C3); nursing home (C2); car parking; open space and ancillary landscaping. Again, this included a phase 1 habitat survey (updated for 2012 submission). (Status: Approved).
- Application ref. 3/2013/0137 (https://www.ribblevalley.gov.uk/planningApplication/23800): Land to the east of Clitheroe Road (Lawsonsteads) Whalley. Outline application for a residential mixed use development comprising up to 260 dwellings (C3), a primary school (D1), a new vehicular link between Clitheroe Road and the A671 including creation of a new junction both onto the A671 and Clitheroe Road, car parking, open space and associated landscaping. Again, this included a phase 1 habitat survey (updated for 2013 submission). (Status: Deferred).
- Reserved matters for outline planning permission 3/2013/0137 were then subsequently addressed as application ref. 3/2014/0043, application ref. 3/2014/0228, application ref. 3/2014/0494 and application ref. 3/2014/0616. These did not have any ecology work associated with them.
2.3 Date, Weather Conditions & Any Limitations

The survey work was undertaken on 19th September 2014, at which time no access or visibility limitations were encountered.

The weather conditions were adequate for completing the survey, being 18°Celsius, dry and overcast, with a light breeze (Beaufort 2).

The seasonal timing of the survey was inappropriate for recording breeding birds and many flying invertebrates (butterflies, bees and dragonflies) but habitat appraisal was used as a means of determining suitability and potential for such wildlife.

2.4 Vegetation & Habitats

An Extended Phase 1 Habitat Survey was carried out throughout the Application Site. The Phase 1 Habitat Survey is a standardised method used to record habitat types and characteristic vegetation, as set out in the "Handbook for Phase 1 Habitat Survey – a technique for Environmental Audit" published by the Joint Nature Conservation Committee (JNCC 2003). The methodology is 'Extended' through the additional recording of specific features indicating the presence, or likely presence, of protected species or other species of nature conservation significance.

Plant species lists were compiled where appropriate and the Site and survey area was searched for uncommon plant species, plant species listed as protected in the Wildlife and Countryside Act 1981 (WCA 1981), plants listed as ‘priority species’ in the former UK Biodiversity Action Plan (UK BAP) and comparably 'species of principal importance', as listed under Section 41 of the extant NERC Act, were noted.

Where woodland and/or hedgerow habitats were present, any evidence of Ancient Woodland Indicator (AWI) plant species was also to be recorded, with such species being determined in accord with the plant species list in Appendix 2 of the document titled 'Ancient woodland: guidance material for local authorities' (English Nature 2002/2003).

All higher plant nomenclature within this report is written in accord with Stace's New Flora of the British Isles (Stace, C. A. 1997).

Searches were carried out for the presence of invasive species, as covered by Section 14 and listed on Schedule 9 in the WCA 1981 (as amended) (Schedule 9 as updated April 2010).

All hedgerows were to be surveyed and assessed in accord with Schedule 1, Part II (wildlife and landscape), Schedule 2 and Schedule 3 of the Hedgerows Regulations (1997).

Any occurrences of priority habitat (as listed in the former UK BAP) and comparably habitats of principal importance (as listed under Section 41 of the extant NERC Act) were noted. Where possible, the plant species lists were also used to identify National Vegetation Classification (NVC) communities (Rodwell, J. S. Volumes 1 – 5, 1991 – 2000), as the NVC provides a systematic and comprehensive analysis of British vegetation.

2.5 Fauna

2.5.1 Bat Species

UK bat species are provided full legal protection under Schedule 5 (Section 9) of the WCA 1981 (as amended) and under The Conservation of Habitats and Species Regulations 2010 (the Regulations 2010), making them European Protected Species. In combination this legislation makes it illegal to intentionally kill, injure, harm or disturb bats and illegal to
damage, disturb or obstruct access to bat roosts.

During the Extended Phase 1 Survey, all features were assessed for their habitat suitability and potential to support roosting, hibernating, foraging and commuting bats, with this assessment focussing on trees and vegetated habitats because no buildings were present.

Trees were inspected from the ground, using close-focus binoculars and a high powered torch where necessary, to identify potential roost habitats such as rot holes, crevices and lifting bark. All were categorised in accord with the ‘protocol for visual inspection of trees’, presented in Table 8.4 (page 60) in the Bat Surveys. Good Practice Guidelines – 2nd Edition. Bat Conservation Trust. 2012. In brief, the categorisation is summarised as follows:

<table>
<thead>
<tr>
<th>Tree Assessment categories</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Known or confirmed roost</td>
<td>As determined from current or historic evidence.</td>
</tr>
<tr>
<td>Category 1* trees</td>
<td>Trees with multiple highly suitable features, feasibly capable of supporting larger roosts.</td>
</tr>
<tr>
<td>Category 1 trees</td>
<td>Trees with definite potential for the support of bats, but either with fewer suitable features than Category 1* trees or with potential for use by single bats, rather than groups.</td>
</tr>
<tr>
<td>Category 2 trees</td>
<td>These have no obvious / clear potential for bat use, but either the size and age is such that cracks or crevices may be present at elevation, or there is visible occurrence of features which may have limited potential to support bats, particularly lone bats.</td>
</tr>
<tr>
<td>Category 3 trees</td>
<td>This accounts for trees that have no potential to support bats.</td>
</tr>
</tbody>
</table>

Based on the daylight survey results, a nocturnal survey was not required at the Application Site.

2.5.2 Badger

Badgers (*Meles meles*) and their setts are protected under the Protection of Badgers Act 1992. This legislation makes it illegal to kill, injure or take Badgers or to interfere with a Badger sett, with the Act defining ‘a sett’ as being “any structure or place which displays signs indicating current use by a Badger”.

The Application Site and at least a 30m radius around it was searched for evidence of Badger, with the aim of identifying any combination of the following field signs:

- Sett holes, wider than high, often with spoil heaps in front, sometimes also with discarded bedding;
- Disturbed ground and small holes from foraging activity;
- Trampled dispersal pathways and breach points under boundary fences;
- Distinctive hairs, snagged on fences etc. or found at sett entrances;
- Dung pits/ latrines;
- Characteristically shaped footprints;
- Scratching at the base of trees and other features.
2.5.3 Birds

Wild birds, their nests and their eggs are protected under Part 1 of the WCA 1981, which makes it illegal to kill or injure a bird and to destroy its eggs or its nest whilst it is in use or being built. Game birds are an exception and are protected under the separate Game Acts, which fully protect them during the close season. In addition, certain bird species (such as Barn owl and Kingfisher) are specially protected under Schedule 1 of the WCA 1981 (as amended), making it illegal to disturb these birds and their young at the nest.

All visible and audible birds were recorded during the survey and habitats at the Application Site were assessed for their potential value for nesting, roosting, feeding, and wintering birds, as indicated by the amount of shelter and species diversity amongst the shrubs, trees and grassland habitats in the Site.

2.5.4 Great Crested Newt & Other Amphibians

The Great Crested Newt (GCN) (Triturus cristatus) is provided full legal protection under Schedule 5 (section 9) of the WCA 1981 (as amended) and under the Regulations 2010, making them a European Protected Species. The legislation makes it illegal to intentionally kill, injure, harm or disturb Great Crested Newts (GCNs) and illegal to damage, destroy or obstruct access to any place used by sheltering or breeding GCNs.

Whilst the species breeds in water it forages, shelters and hibernates on land, typically within 250m of its breeding pond but sometimes up to 500m from the pond. Where planning proposals entail disturbance of land within range of GCN breeding ponds there is therefore a legal requirement to consider GCNs in relation to planning proposals, both in terms of aquatic habitat and terrestrial habitat.

Also, although the Common toad (Bufo bufo) is not afforded comparable legal protection to the GCN, it is regarded as a material consideration for planning applications because it is listed as a ‘priority species’ in the former UK BAP and a ‘species of principal importance’ in Section 41 of NERC Act 2006.

Prior to attending the Application Site a desktop study was therefore undertaken using a 1:25,000 Ordnance Survey map, Google Earth aerial photographs and MARIO online mapping to identify any ponds within 250m unobstructed dispersal range of the Site. Since no ponds were detected within this range, it was determined that no further survey or assessment for GCN or Common toad was required.

2.5.5 Water Vole & Otter

Water voles (Arvicola amphibious) and their habitat are provided full legal protection under Schedule 5 (Section 9) of the WCA 1981 (as amended), which makes it illegal to intentionally kill, injure or take Water voles and to damage, disturb or destroy their ‘place of shelter’, i.e. their habitat.

In England and Wales Otters (Lutra lutra) are protected under Section 9(4)(b) and (c) and (5) of the WCA 1981 and they are fully protected under the Regulations 2010. Collectively, this makes it illegal to deliberately or intentionally capture, injure, kill, harm or disturb Otter and illegal to damage, destroy or obstruct access to an Otter holt.

Both species are characteristically associated with a range of aquatic habitat types, including ponds, field drains, reservoirs, wetlands and rivers.

Prior to attending the Application Site an Ordnance Survey map and Google Earth aerial photographs were checked for evidence of water courses and water bodies within or adjoining the Site. As there was no evidence of such features, this was checked and
verified on Site and then no further survey work for Water vole or Otter was required.

### 2.5.6 Reptiles

All native British reptiles are provided partial legal protection against intentional killing and injury under Schedule 5 (Section 9) of the *WCA 1981* (as amended). In addition, Sand lizard (*Lacerta agilis*) and Smooth snake (*Coronella austriaca*) are fully protected under the *WCA 1981* (as amended) and *under the Regulations 2010*.

Reptile occurrences are uncommon and localised in north-west England. The only reptile species known to occur within 10km range of the Site is Common lizard (*Zootoca vivipara*) and habitats throughout the Application Site were assessed for their suitability and potential to support this species. No further survey or assessment work was required.

#### 2.5.7 Other Wildlife

Any evidence of other wildlife occurrences was to be noted during the survey.

Habitat appraisal was also applied in respect of Brown hare (*Lepus europaeus*) and Hedgehog (*Erinaceus europaeus*), which are both UK BAP priority species and NERC Act ‘species of principal importance’.

### 2.6 Evaluation Methods

Although the UK Biodiversity Action Plan (BAP) was succeeded by ‘The Post-2010 Biodiversity Framework’ in July 2012, evaluation of habitats and fauna with reference to the old UK BAP lists of ‘priority habitats’ and ‘priority species’ still proves helpful in qualifying their ‘value’. The lists of priority habitats and species presented in the former UK BAP also form the basis of list of ‘habitats and species of principal importance’ presented in Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act, which came into force on 1st Oct 2006. This requires the Secretary of State to regard such habitats and species as conservation priorities under the UK Post-2010 Biodiversity Framework.

Furthermore, local BAP lists are important for identifying species and habitats that are notable on a countywide basis (rather than nationally).

Resultantly, throughout this report there remains reference to UK and Lancashire BAP priority species and habitats. There is also reference to habitats of principal importance and species of principal importance, in accord with Section 41 of the NERC Act 2006.

### 3.0 RESULTS

#### 3.1 Desk Study

##### 3.1.1 Designated Sites

The Application Site is centred at grid reference **SD 73734 36727** and the desk study has demonstrated that *there are no statutory ecological designations at this location* and there are *no statutory designations* within at least a 1.0km radius.

In relation to non-statutory sites, these are known as Biological Heritage Sites (BHS) in Lancashire and the Local Plan Map for Ribble Valley illustrates the locations of all BHS designations in the Borough, whilst also showing other land-use designations of ecological interest, such as ‘Greenbelt’, ‘Wildlife corridor’ and ‘Ancient woodland’, plus land-use designations such as housing and industry.
Fig. 1 (Appendix 1) provides an extract from the above-mentioned Local Plan Map and shows that there is *no non-statutory site designation, i.e. no BHS designation* at the Application Site or in the nearby surrounding area. There are thee BHS designations located south-east of the Site, but the closest boundary of such BHSs is 300m away so all are judged to be beyond the zone of influence of the proposed change in land use and they not require further consideration.

### 3.1.2 Protected & Priority Species

The desk study reveals evidence of the known presence of a range of protected species within a 1.0 - 10.0km radius of the Site. This is by no means likely to be a conclusive or exhaustive list, but the species accounted for in the search are summarised in the list below (distances shown in brackets indicate their closest recorded occurrences from the red-line boundary):

- **Amphibians**: Great crested newt (2.0km).
- **Birds (Schedule 1)**: Barn owl, Brambling, Common Kingfisher, Fieldfare, Little ringed plover, Redwing (all 2.0 – 5.0km);
- **Mammals**: Common pipistrelle (1.0km), Daubenton’s bat (1.0km), Noctule bat (1.0km), Soprano pipistrelle (1.0km), Water vole (2.0km), Whiskered / Brandt’s (1.0km).
- **Plants**: Bluebell (2.0km).
- **Reptiles**: Common lizard (10.0km).

In addition, a wide array of UK BAP priority species has been recorded in the 5.0km surrounding area, including many bird, invertebrate and plant species, plus Brown hare, Hedgehog and Common toad.

Where appropriate, i.e. where above-listed records of protected species occurrences are within potential dispersal range of the Site, there is further discussion presented under sub-headings in Sections 3.2 and 3.3 of this report.

### 3.2 Vegetation & Habitats

#### 3.2.1 Location & Surroundings

Fig. 2 (next page) presents labelled extracts from a 1:25,000 Ordnance Survey map and an aerial photograph (© Bing Maps), both exemplifying the location of the Application Site in relation to its surroundings.

As shown, Oakhill College is located at the north-east edge of the large village of Whalley, where it is currently flanked by a combination of grassland fields, hedgerows and trees to the immediate south, west and east, with houses and roads to the west, north-west and south-west.

Note that Oakhill College is submitting a planning application to extend the sports pitches and install floodlights immediately north-east of the Application Site, plus additionally there is a relatively extensive area of new housing being constructed directly to the south of the Site.

Collectively the habitat of the local area has good potential value for bats, birds and other wildlife.
3.2.2 Features within the Site

Fig. 3 (Appendix 1) presents a labelled vegetation and habitat map of the Site, as prepared using an aerial photograph (© Bing Maps) and results from the walkover survey.

Photographs and descriptions of habitat features and vegetation types throughout the Site are provided in the following paragraphs.

**Grassland:**

The most extensive vegetation cover in the Site is mesotrophic grassland. This is separated into one fenced field unit to the west and one unfenced field unit to the east. The field surrounded by post and wire fencing is short-grazed by two donkeys, whereas the unfenced area is left unmanaged and has a tussocky structure (see Photo. 1, next page).
There is abundant Yorkshire fog (*Holcus lanatus*) and Red fescue (*Festuca rubra*) throughout, accompanied by occasional or locally frequent meadow-grass species (*Poa* spp), Creeping buttercup (*Ranunculus repens*) and Broad-leaved dock (*Rumex obtusifolius*). A collective plant species list is presented in Table 1 (Appendix 2), but the botanical composition is species-poor and there is no example of an NVC community and no occurrence of rare or notable plant species. The grassland is not an example of UK BAP Priority Habitat or Habitat of Principal Importance.

**Ruderal Tall-herb Vegetation:**

Common ragwort is also locally abundant amongst the grassland, as exemplified in Photo. 2. This is not representative of an NVC community and it is not BAP Priority Habitat or Habitat of Principal Importance.

Amongst the unmanaged grassland there are additionally local small patches of dominant Rosebay willowherb (*Chamerion angustifolium*) and these represent the OV27: *Chamerion angustifolium* NVC community, but they are botanically species-poor stands of vegetation and they are not an example of UK BAP Priority Habitat or Habitat of Principal Importance.

There are also patches of locally abundant Common nettle (*Urtica dioica*) near the margins and these represent the OV25: *Urtica dioica* – *Cirsium arvense* community because there is also occasional or locally frequent presence of Creeping thistle (*Cirsium arvense*). Again,
the botanical composition is species-poor and there is not an example of UK BAP Priority Habitat or Habitat of Principal Importance.

**Hedgerows (and associated dry ditches):**

There are two unmanaged, defunct and outgrown broadleaf hedgerows situated towards the south-east corner of the Site and these comprise dominant mature Hawthorn (*Crataegus monogyna*), accompanied by occasional Elder (*Sambucus nigra*) and very locally frequent Blackthorn (*Prunus spinosa*). There are dry ditches in the base of the hedgerows and these shallow ditch channels are located just outside the red-line boundary because they are on the south and east sides of the shrubs.

The ground to the base of the hedgerows supports a combination of coarse grassland and ruderal tall-herb, plus locally frequent Bramble (*Rubus fruticosus*), with no evidence of woodland herbs such as Bluebell.

The compositions of both hedgerows are examples of the *W21: Crataegus monogyna* NVC community. When assessed against the ecological criteria of the *Hedgerows Regulations 1997* the southern hedgerow qualifies as ‘important’ because it is botanically diverse enough, but the eastern one does not. Since both are more than 20m long and comprise entirely native species both are classed as ‘Hedgerows’ BAP Priority Habitat and Habitat of Principal Importance. Both hedgerows therefore require further consideration.

There is also a conifer hedgerow along the northern boundary. This is dense and functional, but since it comprises a non-native species it is not an example of BAP Priority Habitat or Habitat of Principal Importance.

**Trees:**

Along the southern and south-eastern boundary there are four large trees, comprising a mature Ash (*T1*), a mature Oak (*T2*), a veteran Ash (*T3*) and another mature Oak (*T4*). Additionally there are several semi-mature Ash. These specimens do not represent a BAP Priority Habitat or Habitat of Principal Importance, but trees T1 to T4 can be likened to “aged or veteran trees found outside ancient woodland” in accord with the wording of paragraph 118 of the National Planning Policy Framework 2012. This imparts an ecological value, which requires further consideration.

**Invasive Species:**

There is no evidence of Himalayan balsam (*Impatiens glandulifera*), Giant hogweed (*Heracleum mantegazzianum*), Japanese knotweed (*Fallopia japonica*) or other invasive plant species.

### 3.3 Fauna

#### 3.3.1 Bats

There are no buildings in the Application Site. Daylight appraisal of the trees identified the following:

- **Tree T1** (mature Ash): this displays no visible evidence of rot holes, but it has moderately dense Ivy cover on the trunk, including mature Ivy stems that present low potential value for roosting bats. This tree has **Category 2 status**.

- **Tree T2** (mature Oak): this also has no visible evidence of rot holes, but it has moderately dense Ivy cover on the trunk, including mature Ivy stems that present low potential value for roosting bats. This tree has **Category 2 status**.
- **Tree T3** (veteran Ash): This displays rot extending into occasional small boughs, plus moderately dense Ivy cover on the trunk, including mature Ivy stems that present low potential value for roosting bats. This tree has **Category 2 status**.
- **Tree T4** (mature Oak): This is in good condition and has no Ivy cover. It has no potential value for roosting bats, hence **Category 3 status**.

Daylight assessment indicates that the shrubs and trees rooted along the southern and eastern sides of the Site are likely to provide sheltered air-space and **moderate potential** for use by foraging and commuting bats. Elsewhere throughout the Site there is limited potential value and low likelihood of use by active bats.

Based on the habitat appraisal it is judged that bats require minor further consideration in relation to the proposal.

### 3.3.2 Badger

There is no evidence of Badger at Site or on the adjoining land. In addition, the data search has provided no known records of the presence of Badger within 1.0km. It is assessed that future colonisation is very unlikely and that no further consideration of Badger is required.

### 3.3.3 Birds

The bird species recorded during the course of the walkover survey were as follows:

- Blackbird (x several individuals)
- Robin (x 1)
- Coal tit (x1)
- Wren (x1)
- Goldfinch (x small flock)

No occurrences of Schedule 1 bird species were recorded during the walkover survey and it is assessed there is no habitat value for Schedule 1 birds to nest at the Site.

The boundary shrubs and trees present potential value for perching, foraging and nesting Song thrush, Dunnock and House sparrow (UK BAP priority species), along with common garden birds such as Robin and Chaffinch, whereas habitat assessment indicates that there is very low or negligible likelihood of the fields being used by ground nesting birds because they are very much enclosed by trees, shrubs and built land. Consistent with this, no ground-nesting bird species were recorded at the time of survey.

Similarly, it is considered that the presence of Hawthorn and other berry producing bushes along the boundaries means there is a local food source for wintering thrush species such as Blackbird and Fieldfare, whereas it is highly unlikely that wintering waders will utilise the fields because of their enclosure by trees.

In summary, whilst the fields can be discounted from further consideration of nesting birds will be necessary in relation to the hedgerows, shrubs and trees at the boundaries.

### 3.3.4 Great Crested Newt & Other Amphibians

There are no ponds within an unobstructed 250m radius of the Site and there is therefore no reasonable likelihood of GCN or Common toad occurrence. Amphibians do not require further consideration in relation to the proposal.
3.3.5 Water Vole & Otter

There are two dry ditches along the boundaries of the Site, but these are unsuitable for Water vole or Otter. There are no other water features, so both species can be discounted from further consideration.

3.3.6 Reptiles

Habitat assessment indicates there is negligible potential for occurrence of Common lizard at the Application Site or the immediate surrounding area. It is concluded that reptiles do not require further consideration in relation to the proposal.

3.3.7 Other Wildlife

Although there is potential for occasional dispersal of Brown hare and/or Hedgehog across the Site, there is insufficient shelter or good quality habitat for the Site to support breeding Brown hare or Hedgehog. It is judged that these BAP Priority Species do not require further consideration.

4.0 SUMMARY, ASSESSMENT & RECOMMENDATIONS

4.1 Summary

The results from the desk study and walkover survey, show that there are the following ecological considerations at the Application Site:

- **Statutory / non-statutory sites of ecological interest** = No concerns or constraints.
- **Notable habitats and/or plant species** = The two boundary Hawthorn hedgerows are examples of BAP Priority Habitat and Habitat of Principal Importance. Trees T1 – T4 that are associated with the hedgerows also have affinity with “aged or veteran trees found outside ancient woodland”, hence these boundary features require further consideration and protection in accord with Section 4.2.
- **Invasive plant species** = No concerns or constraints.
- **Bats** = There is low potential value for roosting bats in association with three boundary trees, plus potential value for foraging bats. This prompts minor precautionary measures, as accounted for in Section 4.2.
- **Breeding birds** = The trees and hedgerow shrubs along the boundaries of the Site are suitable for use by breeding birds. Protection measures are therefore required, in accord with Section 4.2.
- **Badger, Great crested newt, other amphibians, Water vole, Otter, reptiles, Brown hare and Hedgehog** = No concerns or constraints

4.2 Recommendations

The recommendations arising from the survey and assessment are for a combination of standard and best-practice measures.

**Sub-section 4.2.1** present recommendations that are essential measures, required for compliance with wildlife legislation. It is respectfully recommended that these are made the subject of one or more planning conditions to ensure that they are enforceable.

**Sub-section 4.2.2** presents recommendations that are additional considerations and
opportunities, which are examples of how biodiversity retention and/or enhancement can best be achieved at the Site. Their implementation is not essential or enforceable, but where it is possible to incorporate them into the scheme this will demonstrate accordance with the principles of local planning policy and the NPPF, which encourage developments to facilitate retention or enhancement of biodiversity value.

4.2.1 Essential Measures

**Protection of Hedgerows & Trees:**

Where possible, trees and hedgerows are to be retained and protected along the boundaries.

It is also important that their roots are protected against excavation and compaction by heavy machinery, and that their branches, trunks and canopies are not damaged by machinery so before any invasive work commences on the Site, protective stand-offs should be denoted using demarcation tape or fencing. The stand-off distances are to be in accord with British Standards BS5837: 2012 Trees in relation to design, demolition and construction.

If localised removal of is necessary, this will be acceptable but it will prompts precautions for birds and provision of replacement planting. The planting must comprise native shrub species that are suitable to provide value for wildlife.

**Precautionary protection of bats:**

Ribble Ecology Ltd is not aware of any proposal to remove or prune trees T1, T2 and T3, so this guidance is presented on a precautionary basis in case this status changes.

If there is any requirement to fell or prune these specimens (T1 – T3), the work must be undertaken in accord with guidelines in ‘Trees and Bats’ (Arboricultural Association Guidance Note 1, May 2003, 2nd Ed). In summary, it is necessary for an experienced tree worker to implement the following:

- The work is to be preceded by detailed surveys, by means of arboreal inspection with endoscopes and/or nocturnal (dawn) re-entry surveys using ultrasound detectors, to conclusively ascertain the presence or absence of roosts at that time. The results are to be documented and submitted to the Local Planning Authority, plus must form the basis of guidance for felling/pruning the trees. If a confirmed roost is present, it is feasible that licensing may be required for example.

- On the day of the work, any Ivy is to be removed before cutting into trunks or boughs and any presence of rot holes or other habitat value must be investigated.

- If there are any deep and/or long rot holes and there is a limit as to how much inspection can be undertaken because of safety constraints, these must be soft-felled in sections, isolating the cavities and lowering them to the ground for inspection.

- If bats are exposed at any time, they are to be captured using gloved hands and placed a in a Schwegler 2f bat box, with a licensed bat worker being contacted to provide guidance (and the box). This can be the consultant who undertook the initial survey (Ribble Ecology: 01772 879545), any other licensed bat worker, or the Bat Conservation Trust (BCT) helpline (0845 1300 228).

- For guidance, the photographs on the following page show a Common pipistrelle bat (the species most likely to be encountered) and an accumulation of bat droppings.
If it is necessary to capture a bat to remove it to safety, this should be undertaken with gloves or a light cloth, capturing the bat and containing it whilst the advice of the bat worker is sought. Thereafter, following the on-site advice of the bat worker will ensure there is no breach of the legislative protection afforded to roosting bats.

**Protection of Breeding Birds:**

The standard protection of breeding birds is applicable at the Site. Retention of habitat and avoidance of impacts is therefore the primary objective, i.e. where possible there is to be retention of trees, and hedgerow shrubs, as all have the potential to support low numbers of nesting birds during the breeding season.

Where avoidance cannot be achieved, mitigation is necessary and the breeding season is typically regarded as March to August inclusive so where possible the clearance of such vegetation is to take place outside this breeding season.

If other constraints dictate that sensitive timing is not possible, commencement may be able to take place during the bird breeding season, provided extra due diligence is implemented prior to and during the clearance; the following precautions must be applied:

- In the days immediately prior to commencing work, a thorough inspection is to be made, to check for active birds’ nests.
- If any occurrences of breeding birds are detected, the nest(s) must be left undisturbed until the chicks have fledged, at which point the work can take place. As a rough indication, the incubation of eggs and rearing of chicks until they depart the nest can take 2 – 4 weeks, depending on the bird species and what stage the process has reached at the time that the nest is discovered.
- Once it is demonstrated that no birds are actively nesting, features can then be removed.

4.2.2 Additional Considerations & Opportunities

**Lighting:**

Outdoor lighting is typically a deterrent to wildlife, thus where any outdoor lights are required these are to be kept directional, low-level, focussed and/or screened or hooded so that they do not illuminate the roofs or upper walls of buildings or retained trees and shrubs. This will permit bats, birds and other wildlife to continue using such vegetation for feeding and shelter.
**Bats:**

Additional to the specifications about lighting, although there is no obligation to include bat roost features in the new-build properties, it should be noted that there are many means of creating roost habitat features when constructing new buildings and the inclusion of bat roost features is compliant with building regulations and does not increase the construction cost. Furthermore, since bats do not create nests, do not chew materials and only reproduce at a very slow rate they do not present any risk of conflict with future residents: most householders with bat roosts are unaware of the presence of the bats. To that end, examples of standard bat roost features and access opportunities are provided as Appendix 3 of this report. There is no obligation to adopt these, but any inclusion of such features should be regarded favourably by the planning authority, in accord with paragraph 118 of the National Planning Policy Framework (NPPF) 2012.

**Boundary Fences Permeable to Wildlife:**

Close boarded fences with concrete bases, or any fences that meet with the ground, are barriers to animal movement. It is therefore recommended that any new perimeter fences along the boundaries of new residential gardens are not to be sealed at their bases. Where possible there is to be a 5 – 10cm gap between the fence base and the ground (greater in some locations and less in others is not a problem). This is so that the Site is permeable to wildlife such as Hedgehog.

**Planting:**

Where it is possible to incorporate landscape planting into the scheme then this should favour the introduction of species that have value for local wildlife. New shrubs and trees should be planted in mixed-species clusters, which provide greater value than single-species planting. An array of suitable trees, shrubs and plants is available, but some suggestions are listed below:

- **Native species (which would be good throughout the Site, but particularly along the boundaries)**
  - Trees: Alder (*Alnus glutinosa*), Bird cherry (*Prunus padus*), Common whitebeam (*Sorbus aria*), Crab apple (*Malus sylvestris*), Rowan (*Sorbus aucuparia*), Silver birch (*Betula pendula*), Wild cherry (*Prunus avium*).
  - Shrubs: Dog rose (*Rosa canina*), Elder (*Sambucus nigra*), Guelder rose (*Viburnum opulus*), Holly (*Ilex aquifolium*), Hazel (*Corylus avellana*), Hawthorn (*Crataegus monogyna*).
  - Climbers: Field rose (*Rosa arvensis*), Honeysuckle (*Lonicera periclymenum*), Ivy (*Hedera helix*).

- **Exotic species (suitable for gardens)**
  - Trees: Apple (*Malus* sp.), Plum (*Prunus* sp.).
  - Shrubs: *Forcynthia* sp., Lilac (*Syringa vulgaris*), Ornamental currant (*Ribes* sp.), *Hydrangea* sp.
• Climbers: honeysuckle (*Lonicera periclymenum*), *Clematis* sp., climbing roses (*Rosa* sp.), *Wisteria floribunda*.

• Night-scented: White jasmine (*Jasminum officinale*), Tobacco plant (*Nicotiana sylvestris / alata*), Night-scented stock (*Matthiola bicornis / oxyceras*).

• Herbs: Lavender (*Lavendula angustifolia*), Sage (*Salvia officinalis*), Rosemary (*Rosmarinus officinalis*), Mint (*Mentha* sp.), Oregano (*Origanum vulgare*), Thyme (*Thymus vulgaris*), Chives (*Allium schoenoprasum*).

5.0 CONCLUSION

In conclusion, there are no substantive ecological concerns or constrains in relation to the proposal for small-scale residential development on land associated with Oakhill College. Provided the recommended measures presented in Section 4.2.1 of this report are implemented then there shall be no breach of wildlife legislation and if it is possible to apply measures of best practice that are described in Section 4.2.2 then the proposal will help retain biodiversity value in the immediate locality of the Site.

6.0 REFERENCES

BSI (30 April 2012) BS5837: 2012 Trees in relation to design, demolition and construction

Department for Communities and Local Government (March 2012) National Planning Policy Framework.

Entwistle, A. C. et al. (2001) Habitat Management for Bats. JNCC.


Google Earth 5 http://earth.google.co.uk


Joint Nature Conservation Committee (JNCC) UK BAP Priority Species. http://jncc.defra.gov.uk/page-5717

Joint Nature Conservation Committee (JNCC) UK BAP Priority Habitats. http://jncc.defra.gov.uk/page-5718


National Biodiversity Network Gateway (2000) www.nbn.co.uk


The Conservation of Habitats and Species Regulations 2010

APPENDIX 1 – FIGURES

Fig. 1: Extracts from the Ribble Valley Borough Council Local Plan Proposals Map (1998)

Key:

- **Inset maps**
  - G5: Land outside main settlement / village boundaries, Policy G5
  - Flood risk area, Policy G7 (symbol where space allows)
  - Notifiable installations / pipeline, Policy G8
  - Area of outstanding natural beauty, Policy ENV1
  - ENV5: Open countryside, Policy ENV5
  - Green Belt, Policy ENV4

- Sites of special scientific interest, Policy ENV5
- Special protection area, Policy ENV8
- Local nature reserve, Policy ENV8
- County biological heritage sites, Policy ENV9
- Regionally important geological sites / County geological heritage sites, Policy ENV11
- Ancient woodland, Policy ENV12

The Site

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Fig. 3: Vegetation and Habitat Plan of the Application Site

Key
- Broadleaf woodland & trees
- Saplings & shrubs
- Tall ruderal vegetation / Bramble scrub
- Coarse grassland
- Hedgerows (with dry ditches)
- Fences
- Approx. Site boundary

Scale =
0m 25m 50m

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### APPENDIX 2 – TABLES

**Table 1: A collective plant species list for the grassland**

<table>
<thead>
<tr>
<th>Species common name</th>
<th>Species Latin name</th>
<th>Distribution</th>
<th>Estimated % cover</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Grasses and herbaceous plants</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Annual meadow-grass</td>
<td><em>Poa annua</em></td>
<td>VL</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Bramble</td>
<td><em>Rubus fruticosus</em></td>
<td>VLF</td>
<td>1%</td>
</tr>
<tr>
<td>Broad-leaved dock</td>
<td><em>Rumex obtusifolius</em></td>
<td>O/LF</td>
<td>5%</td>
</tr>
<tr>
<td>Cock’s-foot</td>
<td><em>Dactylis glomerata</em></td>
<td>LF</td>
<td>5%</td>
</tr>
<tr>
<td>Common mouse-ear</td>
<td><em>Cerastium fontanum</em></td>
<td>O</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Common nettle</td>
<td><em>Urtica dioica</em></td>
<td>VLF</td>
<td>1%</td>
</tr>
<tr>
<td>Common ragwort</td>
<td><em>Senecio jacobaea</em></td>
<td>O/LF/VLA</td>
<td>10%</td>
</tr>
<tr>
<td>Compact rush</td>
<td><em>Juncus conglomeratus</em></td>
<td>VL</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Creeping buttercup</td>
<td><em>Ranunculus repens</em></td>
<td>F</td>
<td>8%</td>
</tr>
<tr>
<td>Creeping thistle</td>
<td><em>Crisium arvense</em></td>
<td>LF</td>
<td>5%</td>
</tr>
<tr>
<td>Dandelion</td>
<td><em>Taraxacum officinalis</em></td>
<td>O</td>
<td>1%</td>
</tr>
<tr>
<td>False oat-grass</td>
<td><em>Arrhenatherum elatius</em></td>
<td>VLF</td>
<td>1%</td>
</tr>
<tr>
<td>Hard rush</td>
<td><em>Juncus inflexus</em></td>
<td>VL</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Perennial rye-grass</td>
<td><em>Lolium perenne</em></td>
<td>VL/O/LF</td>
<td>1%</td>
</tr>
<tr>
<td>Red fescue</td>
<td><em>Festuca rubra</em></td>
<td>F</td>
<td>20%</td>
</tr>
<tr>
<td>Rosebay willowherb</td>
<td><em>Chamerion angustifolium</em></td>
<td>VLF</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Rough meadow-grass</td>
<td><em>Poa trivialis</em></td>
<td>LF</td>
<td>5%</td>
</tr>
<tr>
<td>Selfheal</td>
<td><em>Prunella vulgaris</em></td>
<td>VLF</td>
<td>&lt;1%</td>
</tr>
<tr>
<td>Smooth meadow-grass</td>
<td><em>Poa pratensis</em></td>
<td>VLF</td>
<td>2%</td>
</tr>
<tr>
<td>White clover</td>
<td><em>Trifolium repens</em></td>
<td>O/LF</td>
<td>3%</td>
</tr>
<tr>
<td>Yorkshire fog</td>
<td><em>Holcus lanatus</em></td>
<td>F</td>
<td>25%</td>
</tr>
<tr>
<td><strong>Bryophytes</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Rytidiadelphus squarrosus</em></td>
<td>VLF</td>
<td>&lt;1%</td>
<td></td>
</tr>
<tr>
<td><em>Hypnum cupressiforme</em></td>
<td>VLF</td>
<td>&lt;1%</td>
<td></td>
</tr>
</tbody>
</table>

**Key:** D = Dominant; A = Abundant; F = Frequent; O = Occasional; R = Rare; L = Locally, v = very
Bat roost boxes or access bricks can be built into upper walls at gable ends. This is subtle but provides high quality roost habitat.

Position them to avoid locations above windows or doors.

There are a range of designs & suppliers, including these examples:

- http://www.forticrete.co.uk/products/184/bat-boxes.html

**Ibstock**
- Height: 265mm
- Width: 180mm
- Depth: 240mm

**Schwegler N27**
- Height: 265mm
- Width: 180mm
- Depth: 240mm

**Schwegler 1FR**
- Height: 475mm
- Width: 200mm
- Depth: 125mm

**Wild-X Cavity Bat Roost**
- Height: 440mm
- Width: 420mm
- Depth (at base): 170mm

**Small Cavity Bat Roost**
- Height: 440mm
- Width: 210mm
- Depth (at base): 170mm