

Green  
Environmental  
Consultants

**LAND NORTH OF CHAPEL LANE  
LETTY GREEN,  
HERTFORD  
SG14 2PA**

**ECOLOGICAL IMPACT ASSESSMENT**

November 2021

for:

Mrs V Naylor

Report number: 1509/1

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## LIMITATIONS AND EXCEPTIONS

### Limitations of Surveys

This report records wildlife found during the survey and anecdotal evidence of some species. Access, seasonality and weather conditions may affect survey results. It does not record any animals or plants that may appear at other times of the year and were therefore not evident at the time(s) of the visit(s). Habitats outside the site boundary were only visited where considered appropriate and where access was available.

The behaviour of animals can be unpredictable and may not conform to standard patterns recorded in current scientific literature. Many species are highly mobile and can occupy a site which has previously held no potential for them and factors such as increasing habitat pressure can cause animals to occupy areas that were previously unoccupied, or which might be considered far from suitable. This report therefore cannot predict with absolute certainty that animal species will occur in apparently suitable locations or that they will not occur in locations or habitats which appear to be unsuitable.

### Limitations of Report

This report takes into account the particular instructions and requirements of our client. It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

The Executive Summary, Conclusions and Recommendations sections of the report provide an overview and guidance only and should not be specifically relied upon until considered in the context of the whole report.

Interpretations and recommendations contained in the report represent our professional opinions, which were arrived at in accordance with currently accepted industry practices at the time of reporting and based on current legislation in force at that time.

Where the data available from previous reports, or for other subject matter supplied by the Client, have been used, it has been assumed that the information is correct. No responsibility can be accepted by us for inaccuracies within the data supplied.

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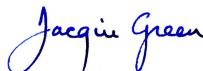
This report is prepared and written in the context of the proposals stated in the introduction to this report and should not be used in a differing context. Furthermore, new information, improved practices and legislation may necessitate an alteration to the report in whole or in part after its submission. Therefore, with any change in circumstances or after the expiry of one year from the date of the report, the report should be referred to us for re-assessment and, if necessary, reappraisal.

Scientific survey data will be shared with local biological records centre in accordance with the CIEEM professional code of conduct.

Please note that Green Environmental Consultants Ltd is an ecological consultancy. Any information relating to legal matters in this report is provided in good faith but does not purport in any way to give any advice on or interpretation of the law whatsoever. Professional legal advice should always be sought.

The data, advice and opinion which we have prepared and provided is true, and have been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct. I confirm that the opinions expressed are my true and professional *bona fide* opinions.

This ecological information is supplied in accordance with BS 42020 2013.



Jacqui Green BSc(Hons), MSc, CEcol, FCIEEM

## EXECUTIVE SUMMARY

This report has been prepared by Green Environmental Consultants and relates to the proposed development of a small plot for one dwelling, north of Chapel Lane, Letty Green, Hertford, SG14 2PA (the 'Site'). The Site is a narrow linear plot between a former railway line (north) and numbers 44 to 58 Chapel Lane (south), at grid reference TL 2903 1105. Since no further work is required, this PEA report has been upgraded to an Ecological Impact Assessment.

### Results

The Site is a linear plot aligned east to west. Recent land-use was as a sanctuary for abandoned animals and housed a variety of semi-domesticated animals (V Naylor pers com). The land is primarily one paddock but sub-divided into smaller units by cross-fencing; stables were present.

The dominant habitat was semi-improved rank grassland, neglected and weedy, with patches of invading scrub. The boundaries, and especially to the western and eastern ends were covered in scrub which was invading in places. Nearly all the trees were outside the Site boundary but a small number, lay within the site on the southern boundary.

Bats - the stables and shed had negligible value for bat roosts. All of the trees and scrub were assessed as being of negligible value for bat roosting.

**Scoping** - a Preliminary Bat Roost Assessment of buildings and trees has been conducted. Other protected species have been scoped out.

**Evaluation** - the Site has been valued at 'Zone of influence' due to its very low ecological value.

**Further Surveys** - None required unless works are proposed to trees outside the boundaries, in which case, as a precaution, they should be checked by an experienced bat roost assessor.

### Mitigation and Enhancement

Mitigation and enhancement recommendations are generic due to the lack of a detailed scheme, but should include: Pre-construction works such as a check for nesting birds; maintaining short grass should be maintained to ensure that it does not become favourable habitat for a variety of species; avoidance of creating piles of material (refugia); limited use of security and floodlighting. Post construction - to avoid a detrimental impact on bats and other nocturnal wildlife, there should be limited increased in night-time illumination.

Enhancement - The size of the plot allows for some native species planting and some suggestions are provided. Opportunities should be explored to provide artificial bat roost(s) within the proposed development if a suitable location can be found. The development should allow inter-connectivity between the Site and northern boundary through the provision of 13 x 13 cm holes at ground level for use by hedgehogs.

### Conclusions

The Site is a poor quality site with no observed presence or issues relating to protected species. The development for one dwelling and associated driveway, parking, garden etc, will still leave an area available to be used for wildlife enhancement. Subject to lighting mitigation against the northern boundary, this proposal is not considered to be a risk to adjacent land or protected species.

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## 1 INTRODUCTION AND OBJECTIVES

### 1.1 Introduction

This report has been prepared by Green Environmental Consultants on behalf of Mrs V Naylor and relates to the proposed development of a small plot for a single dwelling, north of Chapel Lane, Letty Green, Hertford, SG14 2PA, henceforth called 'the Site'. The Site lies north of numbers 44 to 58 Chapel Lane, at grid reference TL 2903 1105.

The Site is a narrow linear plot sandwiched between a former railway line (north) and Chapel Lane (south). It is abandoned horse/animal pasture with stabling.

Since no further work is required, this Preliminary Ecological Appraisal (PEA) has been upgraded to an Ecological Impact Assessment.

### 1.2 Objectives

The purpose of this assessment is to provide evidence of the baseline condition existing at the time of survey, to identify further work required if any and to advise on constraints to development that may arise from ecological issues. It has been produced in accordance with CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal*, 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester and conforms to BS 42020:2013.

The survey was undertaken and the report written by Jacqui Green BSc(Hons), MSc, CEcol, FCIEEM. In the following report binomial scientific names are given after the first mention of a species only; plant names follow Stace 2019 nomenclature.

The objectives are:

- ▶ To undertake an extended Phase 1 survey of the Site; and
- ▶ to undertake a scoping for protected and biodiversity species; and
- ▶ to identify species surveys which may be required to further inform impacts and mitigation; and
- ▶ to undertake an assessment.

## 2 EVALUATION CRITERIA

### 2.1 Baseline Ecological Conditions

The ecological baseline was established through a desk study and site survey as outlined in chapter 3. The results were evaluated against a hierarchy of protection ranging from the highest level (internationally protected) to no statutory protection but which receive consideration under planning legislation. These factors have been assessed against ecological evaluation criteria developed by the Chartered Institute of Ecology and Environmental Management.

### 2.2 Legislation

#### 2.2.1 European Protected Species (EPS) (great crested newts, dormice, bats, otters and others)

European Protected Species are protected under the EC Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora (the Habitats and Species Directive). This legislation is enacted under the Conservation of Habitats & Species Regulations 2017 (the 2017 Regulations). Works which involve impacts on EPS are likely to require a Natural England licence.

In England, Scotland and Wales all bat species and other EPS are also protected under the

Wildlife and Countryside Act (WCA) 1981 (as amended) through inclusion in Schedule 5. The offences under this Act, which cover the obstruction of places used for shelter or protection, disturbance and sale still apply to European Protected Species.

In England and Wales, the WCA is amended by the Countryside Rights of Way Act 2000 (CRoW), which adds an extra offence ('or recklessly') to S9(4)(a) and (b)), makes species offences arrestable, increases the time limits for some prosecutions and increases penalties.

Broadly it is an offence to:

- Intentionally or recklessly/deliberately injure, take or kill a bat (or other EPS).
- To possess a bat (unless obtained legally) alive or dead. Intentionally or recklessly/deliberately damage, destroy or obstruct access to any place that bats (or other EPS) use for shelter or protection, whether bats are present or not.
- Intentionally or recklessly/deliberately disturb a bat (or other EPS) while it is occupying a structure or place that it uses for shelter or protection.
- Deliberately disturb bats (or other EPS) in such a way as to be likely to affect significantly:
  - (i) the ability of any significant group to survive, breed, or rear or nurture their young
  - (ii) the local distribution or abundance of that species.

Prosecution could result in imprisonment, fines of £5,000 per animal affected and confiscation of vehicles and equipment used.

A European Protected Species Licence is required before the commencement of any development that might impact on bats and their roosts, or other EPS.

Exemptions can be granted from the protection afforded under the Habitats Regulations, by means of an EPS (European Protected Species) Habitats Regulations licence obtained from Natural England (NE).

There are three tests which must be satisfied before a licence can be issued to permit otherwise prohibited acts, in this case only Regulation 53(2)(e) is relevant, namely, for the purpose of preserving public health or safety, or other imperative reasons of overriding public interest. This includes those of a social or economic nature and with beneficial consequences of primary importance to the environment.

This is subject to Natural England's satisfaction that the application additionally meets:

- ▶ Regulation 53(9)(a) that there is no satisfactory alternative.
- ▶ Regulation 53(3)(b) that the action authorised will not be detrimental to the maintenance of the species concerned at favourable conservation status in their natural range.

### 2.2.2 Wildlife & Countryside Act Protected Species (water voles, barn owls, reptiles etc)

A number of species receive protection at a national level, usually against injury and killing, but may also include destruction of a resting place, collection and sale (the latter may also apply to selected named plants). Water voles and the more common species of reptiles are included in this group.

### 2.2.3 Other Species Legislation

Certain species are protected under other legislation eg the Protection of Badgers Act 1992 which gives special protection against harm to badgers or their setts.

## 2.2.4 Biodiversity Species and Habitats

A number of species and habitats which do not merit national protection are nevertheless threatened or endangered at a more localised scale, usually at a county level, or have been discovered to have undergone a rapid decline. These are listed on the UK Species/Habitats of Principal Importance (S41) list (see under 'The England Biodiversity List' in section 2.3), or county (Local) Biodiversity Action Plans (BAPs) and would be considered to be part of the National Planning Policy Framework lower tier.

Further lists are provided for eg Birds of Conservation Concern BoCC (Red Lists) and species of conservation concern eg Red Data lists. There may also be local or county lists.

## 2.2.5 Birds - General

All nesting birds are protected under Section 1(1)(b) of the Wildlife and Countryside Act (1981) (*ibid*). It is an offence to:

*... intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built; or take or destroy an egg of any wild bird.*

As a consequence no scrub or tree clearance or management should be undertaken during the nesting season, unless works to make the habitats unsuitable are first undertaken, or a detailed examination before clearance starts declares the area free. The nesting season is generally taken to be between mid-March and August if second broods are present, but warm seasons may extend this period to between February and September.

## 2.3 **Obligations Under Planning Legislation**

### 2.3.1 General

The National Planning Policy Framework (NPPF) (OGL 2021) sets out the Government's planning policies for England and how these are expected to be applied. The NPPF Paragraph 180 says:

*'When determining planning applications, local planning authorities should apply the following principles:*

*a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*

*b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*

*c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*

*d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around*

*developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.'*

### 2.3.2 Species/Habitats of Principal Importance and Biodiversity

To aid assessment and evaluation of impacts on biodiversity, a list of Species of Principal Importance (SPI) has been produced. Natural England have produced standing advice (*Purpose and use of the England Biodiversity List*) regarding SPI as follows:

The England Biodiversity List has been developed to meet the requirements of Section 41 of the Natural Environment and Rural Communities Act (2006). This legislation requires the Secretary of State to publish a list of species of flora and fauna and habitats considered to be of principal importance for the purpose of conserving biodiversity.

The S41 list will be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 40 of the Natural Environment and Rural Communities Act 2006 "to have regard" to the conservation of biodiversity in England, when carrying out their normal functions.

## 2.4 Ecological Evaluation

It is important to put records and results into context using criteria such as designation, rarity, vulnerability, threat, location in a linkage of sites or features, importance at a given scale (eg national, local, parish) etc.

The Chartered Institute of Ecology and Environmental Management has developed evaluation guidelines. These guidelines acknowledge that ecological evaluation is a complex and subjective process but provides key considerations to take into account when applying professional judgement to assign values to ecological features and resources. These include consideration of geographic frame of reference; legal protection, site designations and features; biodiversity value; large populations or important assemblages of species; potential value, secondary or supporting value; social/community value and economic value. These evaluation criteria, based on those developed by the Chartered Institute of Ecology and Environmental Management, are given below:

**Table 2.1 Ecological Valuation Levels**

Level of Importance	Value	Comment
International	Very High	Sites, habitats or species protected under international legislation eg. The Habitats and Species Directive. These include, amongst others: Special Areas of Conservation (SACs), Special Protection Areas (SPAs), Ramsar Sites, Biosphere Reserves, plus undesignated sites supporting populations of internationally important species.
National	Very High/ High	Sites, habitats or species protected under national legislation e.g. Wildlife & Countryside Act 1981 and amendments. Sites include Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNRs), Marine Reserves, plus areas supporting significant areas of UK Habitats of Principal Importance, or breeding populations of rare (Red Data Book) species.



Level of Importance	Value	Comment
Regional	Medium	Sites, habitats or species which may have regional importance, but which are not protected under legislation (although Local Plans may specifically identify them) e.g. viable areas or populations of Regional Biodiversity Action Plan habitats or species; regionally important invertebrate assemblages etc.
County	Medium	Sites, habitats or species meeting the criteria for Local (County, Metropolitan or Unitary Authority area) designation e.g. Local Wildlife Site. This category includes designated Local Nature Reserves, which have statutory protection. Sites containing viable areas or populations of Species of Principal Importance (SPIs) or County Biodiversity Action Plan habitats or species, local Red Data Book species etc.
Local or Parish	Low	Undesignated sites or features, which enhance or enrich the wildlife resource at a Parish or neighbourhood level.
Zone of influence	Very Low	Includes nil or low ecological value but which form a function within the site or immediate surroundings.

### 3 METHODS

#### 3.1 Desk Study

A desk study was undertaken to gather existing ecological records in relation to the site and the surrounding area, in order to provide ecological context for the site and to inform an assessment of the potential ecological constraints to development.

A 2km search was undertaken from the Hertfordshire Environmental Records Centre (HERC); MAGIC (Multi-Agency Geographic Information for the Countryside) was also searched. OS maps and aerial photographs were used to identify the presence of features up to 250 m from the site which might be used by protected or notable species.

#### 3.2 Habitat Survey

##### 3.2.1 Methodology

A Phase 1 habitat survey of the site was conducted. The survey followed the 'Preliminary Ecological Appraisal' methodology as set out in CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal*, 2nd Edition Chartered Institute of Ecology and Environmental Management, Winchester, which is a development of the method described in the 'Handbook for Phase 1 Habitat Survey – a technique for environmental audit' (Joint Nature Conservation Committee, 2010).

##### 3.2.2 Surveyor Details

The survey was undertaken by Jacqui Green BSc(Hons), MSc, CEcol, FCIEEM who has forty years of survey experience, on 05 August 2021, when it was sunny.

### 3.2.3 Survey Limitations

Access to the Site was provided; some dense scrub prevented views of the extremities (west and east) of the Site, although these areas were viewed from outside the Site. Immediately adjacent land could also be seen, but gardens were only seen over fences.

### 3.3 **Scoping for Protected & Biodiversity Species**

Information from the habitat survey was used to scope (look for indicative habitats, niches or other signs) for protected or biodiversity habitats and species, which may require more detailed survey. Adjacent land was included to assess if protected species might be present on land nearby and which might be indirectly affected, or which could use the Site transiently. Maps and aerial photographs were also used to identify features which might be hidden by vegetation or fencing. The Site was also searched for evidence of invasive plant and animal species listed on Schedule 9 of the Wildlife and Countryside Act.

### 3.4 **Preliminary Bat Roost Assessment (PBRA)**

#### 3.4.1 Buildings

Buildings were assessed for their potential to support bats in accordance with standard survey guidelines outlined in the BCT Good Practice Guidelines (Collins 2016). Additionally, the suitability of the habitat to support commuting and foraging bats was considered.

An inspection of all buildings and associated structures was conducted internally and externally. Internal spaces were checked for: bats and evidence of bats e.g. live or dead bats, audible squeaking, droppings on the floor, walls, furniture and in cobwebs, urine marks on hard surfaces, feeding signs, etc.); and suitability for roosting including potential roost locations, access points, light levels, draughts, etc. External inspections also searched for: bats and evidence of bats e.g. live bats in crevices, droppings and urine marks on walls and windows, etc.; and suitability for roosting including access into the fabric of the building, particularly at eaves, soffits, under flashing and roof felt gaps, etc.

#### 3.4.2 Tree Roost Inspections

All trees on Site were inspected from ground level using binoculars and a powerful spot-light. Where trees were outside the Site these were examined where possible but most could not be accessed all around and easily due to locations within scrub. Concerning potential for roosting bats, attention was paid to the nature of holes and other cavity and crevice features and broadly referred to features described in the 'Bat Tree Habitat Key (3rd Edn.)', (Andrews 2016).

The following potential roost features (PRFs) may indicate the presence of a bat roost in a tree: Woodpecker and rot holes; knot holes arising from naturally shed branches, or branches previously pruned back to the branch collar or cavities created by branches tearing out from parent stems; splits and cracks such as hazard beams and frost-cracks in stems or branches; partially detached platey bark; partially detached ivy with stem diameters above 50mm; and bat, bird or dormouse boxes.

#### 3.4.3 Assessment Criteria

**Table 3.1: Assessment of Bat Roosting Potential in Buildings and Trees (adapted Collins, 2016).**

Suitability	Assessment of Features Present That Potentially Support Roosting Bats
Negligible	Negligible habitat features on site and unlikely to be used by roosting bats.

Suitability	Assessment of Features Present That Potentially Support Roosting Bats
Low	A small number of potential roosting sites present, with features most likely to be used by a <i>low number</i> of bats on a <i>transient basis</i> (i.e. not regularly, nor for breeding or hibernation roosts).
Moderate	Several potential roosting sites present, with features that are <i>unlikely</i> to support maternity or hibernation roosts.
High	Potential roosting sites, with features conducive to the establishment of roosts of high conservation value, e.g. larger number of bats, regular roosting, occupancy for longer periods, maternity and or hibernation roosts.

The survey undertaken was thorough and consistent with an approach recommended to Natural England Roost Visitors. Aside from maternity and other regularly-used roosts, where larger numbers of droppings accumulate, it is often the case that there is no visible indication of their presence. Evidence is also open to nuanced interpretation.

#### 3.4.4 Survey Details and Limitations

The surveys were conducted on 05 August 2021 by Jacqui Green BSc(Hons), MSc, CEcol, FCIEEM who has many years of survey experience. Some trees outside the boundaries were difficult to see low down due to the presence of dense scrub around the bases.

## 4 RESULTS

### 4.1 Desk Study

#### 4.1.1 Sites

There are no statutorily designated sites within 2 kms.

There are eight ancient woodland sites within 2 kms.

There are nineteen Local Wildlife Sites (LoWS) in the search area but most are some distance from the Site. The closest are:

58/006 Cole Green Way. TL286111. Disused railway route supporting linear secondary woodland and scrub on either side of steep embankments. .... Thin strips of grasses and herbs border the central track and larger open areas of more species-rich grassland occur in places. Grassland species recorded include Cowslip (*Primula veris*), Common Knapweed (*Centaurea nigra*), Hedge Bedstraw (*Galium mollugo*), Field Scabious (*Knautia arvensis*) and Common Sorrel (*Rumex acetosa*). The structural diversity of the vegetation provides a range of habitats for a varied insect population. Wall Bedstraw (*Galium parisiense*), a UK Vulnerable species, has been recorded from the site. Wildlife Site criteria: Grassland indicators. This site lies north of Chapel Lane, behind existing houses.

58/011 Cowper Arms Pit. TL286111 Site and environs important for protected species. Wildlife Site criteria: Species. This Site lies 190m north-west of the Site.

#### 4.1.2 Protected Species

##### 4.1.2.1 *General*

Records of protected species can be confidential for a number of reasons and to safeguard this information the list is not included in full in this report. Nearly 13,000 records have been provided; information which might be relevant to this Site is itemised below.

#### 4.1.2.2 European Protected Species

Amphibians: great crested newt *Triturus cristatus* has been recorded within 250m but on the opposite side of the railway line to the Site.

Bats: There are hundreds of bat records of eleven species but no roosts reported near the Site.

Other mammals - numerous otter *Lutra lutra* records. There are no dormouse records from the area.

#### 4.1.2.3 UK Protected Species

Birds - Species recorded nearby include: barn owl *Tyto alba*; fieldfare *Turdus pilaris*; hobby *Falco subbuteo*; red kite *Milvus milvus*;

Mammals - There are hundreds of badger records from the search area but many of these are very old; none of the records are from near the Site.

Reptiles - There is a small number of common (viviparous) lizard *Zootoca vivipara* and a larger number of grass snake *Natrix natrix* records but none are near the Site.

Plants - Bluebell *Hyacinthoides non-scripta*.

#### 4.1.3 Species/Habitats of Principal Importance and other Biodiversity Issues

Most biodiversity species recorded within 2km are birds or moths.

Mammals: Numerous records of hedgehog *Erinaceus europaeus* but most are very old.

Invasive Non-native Species (INNS) listed on Schedule 9 of the WCA: A number listed but none within 1kms.

The absence of records does not mean that a particular species or habitat is not present, but may reflect a lack of recording effort in a given location.

## 4.2 Habitat Survey

### 4.2.1 The Site

Features described below are shown on the habitat map Figure 1509/1/1 in the Appendix.

The Site is a linear plot aligned east to west. Near the entrance were old stable buildings and a wooden shed. Recent past history land-use was as a sanctuary for neglected and abandoned animals and housed a variety of semi-domesticated animals brought in for nursing and care (V Naylor pers com). For this reason the land is primarily one paddock but sub-divided into smaller units by cross-fencing, shown as compartments C1 to C4 on Figure 1509/1/1 numbering from west to east.

Formerly semi-improved rank grassland it has been neglected and has become weedy with patches of scrub invading from the boundaries. The grassland was mainly old paddock with:

cock's-foot *Dactylis glomerata* abundant; Yorkshire-fog *Holcus lanatus*; creeping bent *Agrostis stolonifera*; smooth meadow-grass *Poa pratensis*; and forbs such as yarrow *Achillea millefolium* (frequent); ribwort plantain *Plantago lanceolata*; ground-ivy *Glechoma hederacea* (locally frequent); common nettle *Urtica dioica*; and species such as the following which were scattered rarely throughout the sward: creeping thistle *Cirsium arvense*; dock *Rumex* spp; wild teasel *Dipsacus fullonum*.

Compartment 1: as above but the western end had been invaded by bramble *Rubus fruticosus*, creeping thistle and spear thistle *Cirsium vulgare*, with little open grassland in this area.

Compartment 2 contained the entrance and stabling and as a consequence was more worn and less diverse. In one corner was a composting area surrounding by planted conifers as a screen.

Compartment 3: this area had slightly more diversity with species such as wall barley *Hordeum murinum*; selfheal *Prunella vulgaris*; creeping cinquefoil *Potentilla reptans*; meadow buttercup *Ranunculus acris*; autumn hawkbit *Scorzoneroides autumnalis*; bush vetch *Vicia sepium* and hoary willowherb *Epilobium parviflorum*. Invading into this area from the boundary scrub was: bramble, elm *Ulmus* sp, silver birch *Betula pendula*.

Compartment 4: this area was still grassy with less scrub except at the eastern end. Species included those for C2 and some from C3 plus common bent *Agrostis capillaris* and smooth tare *Ervum tetrasperma*.

Boundaries: the southern boundary to Chapel Lane had intermittent hedge and short lines of trees nearly all of which were outside the Site. Part of a line of ash *Fraxinus excelsior* and field maple *Acer campestre* along the southern boundary falls within compartment 3. The land south of compartments 2 and 3 was covered by scrub but also included a large weeping willow *Salix x sepulcralis*.

#### 4.2.2 Adjacent Habitats

The southern boundary is formed by Chapel Lane and the scrub/overgrown hedge between it and the Site; there are dwellings south on Chapel Lane and also to the west, including a new build to the immediate west.

The most interesting boundary is that to the north where the former railway line has been converted into a footpath (Cole Green Way). It is lined by overgrown hedge or trees on both sides and some trees overhang the Site's northern boundary. Beyond this is open farmland/ arable fields.

#### 4.2.3 Other Observations

No evidence of invasive non-native species (INNS) was found although a single plant of ragwort *Jacobaea vulgaris* was recorded.

### 4.3 **Scoping for Protected and Biodiversity Species**

- ▶ The boundary trees and the presence of buildings indicates the requirement for a preliminary bat roost assessment and one has been carried out.
- ▶ Although there is a record of great crested newt within the search area, it is nearly 250m away to the east and separated from the Site by housing and road. Given the distance and lack of ponds in the immediate area to attract newts, it is considered unlikely that they would be present on Site.
- ▶ Bird nesting is likely to be common on the Site, but confined to boundary scrub and trees.
- ▶ The grassland is suitable for reptiles. However as with newts, opportunities for colonisation are limited. The owner, an animal lover, does not report reptiles from her land.

#### 4.4 Preliminary Bat Roost Assessment

The stables were constructed of wooden walls and corrugated cement/asbestos roof. They were used for storage and had been unused for stabling for years. Cobwebs were numerous and some gaps were present within walls and roof. No evidence of bats, droppings etc were found. The wooden shed attached to the stables was similarly constructed and no evidence of bat use was found.

None of the trees within the Site were identified as having roost potential. Lines of oak trees on Cole Green Way at the western end of the Site, were mature and could potentially be used by bats (these trees were not seen except from the Site side). Although no specific features were observed, it should be assumed that they could be used by bats at some time in the future.

The presence of the green corridor close to the Site represents moderate habitat importance but good connectivity.

## 5 DISCUSSION & ANALYSIS OF RESULTS

### 5.1 Discussion

The Site is abandoned horse pasture of limited diversity but its seclusion may attract some species not identified on the day of survey. There are no features on Site of great significance but habitats are present for reptiles and hedgehogs. The boundary habitats and especially the footpath to the north (which is a Local Wildlife Site for grassland) are good wildlife habitats and the former railway line provides a green corridor across an arable landscape.

### 5.2 Evaluation

Using the ecological evaluation criteria from table 2.1:

**Table 5.1 Ecological Valuation for this Site**

Level of Value	Value	Comment
International	Very High	None.
National	Very High/ High	None.
County	Medium	None on Site. Local Wildlife Site (LoWS) on northern boundary.
Regional	Medium	None.
Local	Low	None.
Zone of Influence	Very Low	Likely use by nesting birds. Possible hedgehogs on Site and less likely, use by reptiles.

Using the above criteria, the current information values the site at Zone of Influence as it has a very low ecological value. However its connectivity to the wider landscape via the linear Local Wildlife Site on northern boundary may raise this to Local importance.

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## 6 RECOMMENDATIONS

### 6.1 Further Surveys

No further species surveys are required.

### 6.2 Mitigation

In the absence of a detailed scheme, the following generic recommendations are made to aid design and identify constraints and opportunities.

#### 6.2.1 General Works Surveillance

Before removal of scrub a check for nests should be carried out first. All species of bird are offered protection under the Wildlife and Countryside Act 1981 (as amended) when nesting or preparing nests (typically, but not exclusively between March and August inclusive). As such, removal of vegetation or sheds should be carried out outside of the breeding bird season (so, between September and February inclusive), so as to avoid disturbing or destroying active nests. Should this time frame be unfeasible, it is recommended that prior to the commencement of works, a nesting bird check is carried out by a suitably qualified ecologist (although checks at all times of year are recommended). If active nests are observed, vegetation or shed will need to be left alone until the ecologist is satisfied that the young have successfully fledged.

It is advised that the grassland be mown and thereafter kept short in the run-up to the construction works, to ensure that it does not become favourable habitat for species that may then be harmed during the works.

#### 6.2.2 Construction Phase Operations

It is considered unlikely that reptiles are present on Site due to its location and past land-use history, but a precautionary approach is advised. Vegetation removal should be conducted outwith the hibernation period (so, can be completed during approximate British summer time). Turfs should be carefully stripped to enable any animals amongst the grass to move away, or be collected and taken to a place of safety. If reptiles are found, an ecologist should be consulted for advice. A licence is not required to move these animals (slow-worms, grass snakes, common lizards, adders) but if large numbers are found, a controlled translocation by an experienced ecologist is likely to be required.

Any piles of material should be carefully dismantled and searched for evidence of species such as hedgehogs.

To avoid creating refugia that may be utilised by hedgehogs and other wildlife, materials should be carefully stored on-site on raised pallets and away from boundary habitats. Piles of materials that could act as refuges for wildlife should be removed as soon as possible. If left any time, they should be checked for the presence of wildlife before moving.

Any trenches on site should have mammal ramps to ensure that any animals that enter can safely escape - this is particularly important if holes fill with water.

Security and work floodlighting should only be used where necessary to avoid any potential detrimental impacts during construction on foraging and commuting bats. These lights should not continually illuminate boundary vegetation during hours of darkness. The principles outlined below and set out in the Institute of Lighting Professional's Guidance Note should also be applied to construction phase lighting.

### 6.2.3 Illumination and Nocturnal Wildlife

It is possible that the dismantled railway line is used by bats for commuting and foraging. To avoid a detrimental impact on bats and other nocturnal wildlife, there should be limited increase in night-time illumination, especially along the northern boundary to the former railway line/wildlife corridor. Lighting should be restricted to the lowest level of illumination required for safety and security and only used where needed. The following measures should therefore be implemented within the lighting scheme:

- ▶ New column-mounted luminaires, lighting bollards and wall-mounted luminaires should be selected, sited and angled such that they do not spill unnecessary light on to areas where illumination is not required, and such that there is no significant increased light trespass on to existing nocturnally dark habitats where bats forage and commute;
- ▶ Ensure new LED luminaires have dimming capability, a warm white spectrum (ideally <2700, but below 3500 Kelvin) with peak wavelengths higher than 550 nm and with no UV output;
- ▶ Where security lamps are used these should use a trigger to illuminate them (e.g. passive infra-red detector) and switch off after a short period (ideally 1 minute), rather than remaining on all night and as a rule lights should be switched off when not required.

Further guidance is available in Bats and artificial lighting in the UK (ILP 2018).

## 6.3 **Enhancement opportunities**

### 6.3.1 Habitat Enhancements

The National Planning Policy Framework seeks to ensure that all new development includes biodiversity enhancements. A fully worked up scheme is not available at the time of writing this report but given the proposals are for a single dwelling, this will leave plenty of land for habitat enhancement, notwithstanding any formal gardening requirements. Suggestions include wildflower habitat possibly mimicking the grassland found on the adjacent railway line (but it will be important to use local provenance seed only; consultations with the local Wildlife Trust may prove fruitful).

Some native tree/shrub planting would also be beneficial as would fruit trees.

### 6.3.2 Bat Roosting Opportunities

Whilst there was no evidence of bat roosting on site, opportunities should be explored to improve this situation by providing artificial roosts within the proposed development.

No house design is available but opportunities to incorporate bat roosting opportunities should be explored. This may include roosting cavities built-in to walls as exemplified in Gunnell, Murphy & Williams (2013). However, for these to be effective and acceptable to new home owners, the number and position must align with opportunities afforded by the design of the new building. For example, they should be placed away from bedroom walls, not above windows/doors, not on south-facing walls and at sufficient height to avoid predation/ disturbance. Use of integrated boxes may also depend on the building materials used. It is accepted that these constraints may limit opportunities but there is little point insisting upon enhancement where it is unlikely to have any value.

### 6.3.3 Bird Boxes

A generic approach to installing bird boxes around a site is often ineffective, or worse, exposes



nesting birds to increased risk of predation. Integrated bird boxes on a single dwelling are unlikely to be beneficial and may not be compatible with building materials and location. The Site has plenty of existing bird nesting opportunities which are likely to continue to be present after development, therefore no boxes are recommended at this stage.

#### 6.3.4 Hedgehogs

Hedgehogs may be present in neighbouring areas and rely upon connectivity to explore large ranges. The development should allow continued inter-connectivity between the Site and the land to the north, through the provision of 13 x 13 cm holes at ground level and marked by 'Eco Hedgehog Hole Fence Plates' (or similar) to ensure residents understand the purpose of the hole. At least one hedgehog box or dome amongst northern boundary vegetation might also be beneficial.

## 7 CONCLUSIONS

The Site is a poor quality site with no observed presence or issues relating to protected species. The development for one dwelling and associated driveway, parking, garden etc, will still leave an area available to be used for wildlife enhancement. Subject to lighting mitigation against the northern boundary, this proposal is not considered to be a risk to adjacent land or protected species.

## 8 BIBLIOGRAPHY







- Anon, (1981). *Wildlife and Countryside Act*. HMSO London.
- Anon (1992). *Protection of Badgers Act*. HMSO London.
- BSI (2013). *BS42020:2013 Code of Practice for Planning and Development*.
- CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal*, 2nd Edition Chartered Institute of Ecology and Environmental Management, Winchester.
- DEFRA (2017). *The Conservation of Habitats and Species Regulations 2017*. Statutory Instrument no. 1012. (SI 2017/1012) Department for Environment, Food & Rural Affairs, TSO, London.
- Gunnell K, Murphy B. & Williams C. (2013). *Designing for Biodiversity: A Technical Guide for New and Existing Buildings (2nd edition)*. RIBA, London
- Institution of Lighting Professionals (2018). *Bats and artificial lighting in the UK*. Guidance Note 08/18.
- JNCC (2010). *Handbook for Phase 1 Habitat Survey - a Technique for Environmental Audit*. England Field Unit, Nature Conservancy Council, reprinted JNCC, Peterborough.
- OGL (2021). National Planning Policy Framework (NPPF) 2021.
- OPSI (2006). *Natural Environment and Rural Communities Act 2006*. TSO, London
- Stace (2019). *New Flora of the British Isles*. 4<sup>th</sup> Edition. C & M Floristics.

**APPENDIX**

**Photographs**

**1509/1/1 Habitat Map**

PHOTOGRAPHS

	
<p>1 - View from western end looking towards the east showing grassland invaded by scrub. Large Leylandii around compost area.</p>	<p>2 - Looking eastwards from the stables showing narrowing of site. Large trees to left are on former railway line.</p>
	
<p>3 - stables exterior with shed to left. Large overhanging trees are outside Site boundary.</p>	<p>4 - shed next to stables</p>
	
<p>5 - interior of stables showing plentiful cobwebs and well lit.</p>	<p>6 - Chapel Lane road frontage. Entrance is marked by cones.</p>

