

**clearthinking**  
COMMERCIAL PROPERTY ADVICE



---

**Preliminary Ecological Appraisal**

**Land off Workhouse Lane, Burbage**

**On Behalf Of:**  
Mather Jamie

**Prepared By:**  
Helen Archer BSc MCIEEM  
Harris Lamb | Grosvenor House | 75-76 Francis Road | Edgbaston | Birmingham B16 8SP  
Telephone: 0121 410 2064 Facsimile: 0121 455 6595 E-mail: Miles.Haslam@harrislamb.com

Job Ref: PE0083

Date: 18<sup>th</sup> May 2020

## **Preliminary Ecological Appraisal**

**Land off Workhouse Lane, Burbage**

---

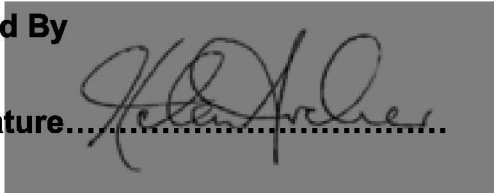
### **Main Contributors**

**Helen Archer BSc MCIEEM**

---

**Issued By**

**Signature.....**

A handwritten signature in black ink, appearing to read 'Helen Archer', is written over a dotted line. The signature is contained within a grey rectangular box.

**Print Name:** Helen Archer BSc MCIEEM

**Date:** 20/06/2019

---

**Approved By**

**Signature.....**

A handwritten signature in black ink, appearing to read 'Holly Smith', is written over a dotted line. The signature is contained within a grey rectangular box.

**Print Name:** Dr Holly Smith

**Date:** 18<sup>th</sup> May 2020

**CONTENTS**

<b>EXECUTIVE SUMMARY</b>	<b>1</b>
<b>1.0 INTRODUCTION</b>	<b>2</b>
<b>2.0 PLANNING CONTEXT</b>	<b>4</b>
<b>3.0 METHODOLOGY</b>	<b>9</b>
<b>4.0 RESULTS</b>	<b>16</b>
<b>5.0 ASSESSMENT OF EFFECTS AND MITIGATION MEASURES</b>	<b>25</b>
<b>6.0 CONCLUSIONS</b>	<b>31</b>

## **EXECUTIVE SUMMARY**

Harris Lamb Property Consultancy (HLPC) was commissioned by Mather Jamie to undertake an ecological appraisal at land off Workhouse Lane in Burbage, Leicestershire. The site is c. 2.5ha in extent and is located on the southern outskirts of the village of Burbage.

HLPC carried out an Extended Phase 1 Habitat Survey of the site in May 2019 by a suitably experienced ecologist. Desk-based consultation was undertaken with Leicestershire and Rutland Environmental Records Centre (LRERC) for records of protected species and designated sites within 2km of the site.

The hedgerow along the eastern site boundary is designated a Local Wildlife Site and will largely be retained. The access to the site has been located at the existing gap in the hedgerow to minimise impacts and the gappy hedgerows on the remaining site boundaries will be enhanced to mitigate the loss of a smalls Section of the LWS. A wildflower meadow is proposed and drainage features which will enhance the value of the site. Details on native landscape planting mixes for hedgerows, meadow and the wider site could be secured via planning condition.

The hedgerows have potential to support nesting birds. Ponds in the vicinity of the site were negative for great-crested newts (using eDNA testing). The hedgerows will be retained and enhanced and a sensitive lighting scheme is recommended to minimize impacts to foraging/commuting bats. Pre-commencement surveys are recommended in relation to badgers.

Additional enhancement measures have been recommended including nesting bird and roosting bat habitat on retained trees/new buildings and consideration of leaving gaps for hedgehogs within new boundary fences. A Habitat Management Plan is recommended to agree the specification of new native planting within the final design.

Mitigation and enhancement measures could be secured through a planning condition and therefore the proposed development accords with biodiversity planning policy.



## 1.0 INTRODUCTION

### 1.1 Terms of reference

- 1.1.1 Harris Lamb Property Consultants (HLPC) was commissioned by Mather Jamie to undertake a Preliminary Ecological Appraisal (PEA) at land off Workhouse Lane in Burbage, Leicestershire (centred at national Ordnance Survey (OS) grid reference SP 44243 91857) hereafter termed the 'site'; see Figure 1, below.

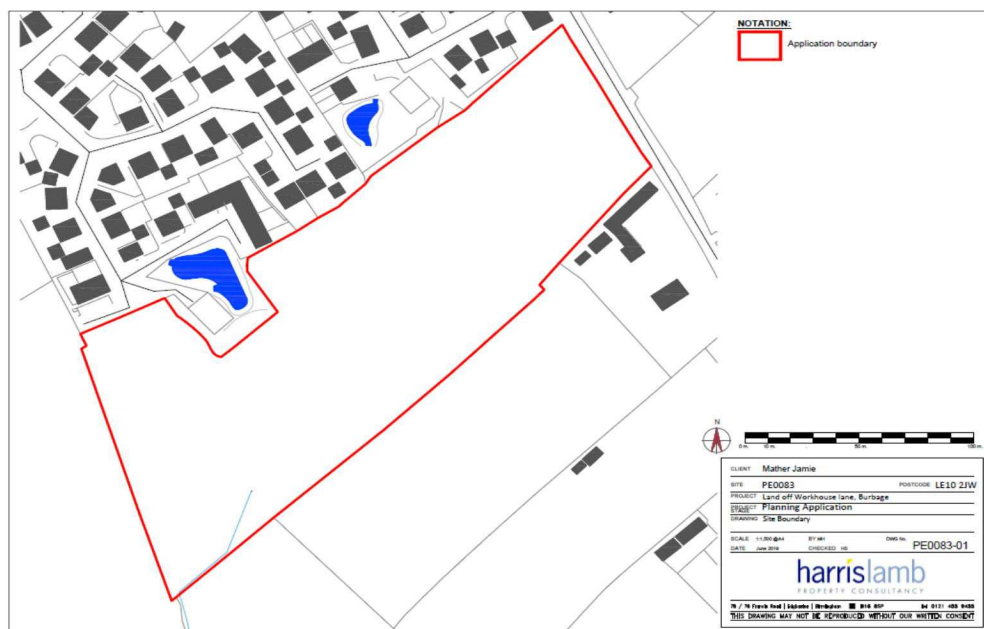


Figure 1: Site location. Not to scale.

### 1.2 Site location

- 1.2.1 The site is approximately 2.5ha in extent and located on the southern outskirts of the village of Burbage. The site is bound to the east by Workhouse Lane and adjoins further grassland fields to the south and south-west. A residential area is situated immediately to the north of the site.
- 1.2.2 The site is dominated by improved grassland with species-poor hedgerows established along the perimeter.

### 1.3 Proposed development

- 1.3.1 The site is proposed for development into residential dwellings.

## **1.4 Purpose of this report**

### **1.4.1 The purpose of this report is to:**

- Identify key ecological constraints associated with the proposed development and input into the scheme design to minimise ecological impacts where possible.
- Set out mitigation measures required to ensure compliance with nature conservation legislation and address potentially significant ecological effects.
- Identify how mitigation measures could be secured.
- Provide an assessment of significance of residual effects.
- Identify appropriate enhancement measures.
- Identify appropriate post-construction monitoring if relevant.

## **2.0 PLANNING CONTEXT**

### **2.1 National Planning Policy Framework (NPPF)**

2.1.1 National Planning Policy Framework (NPPF)<sup>1</sup> is the top tier of planning policy. The Framework provides guidance to local authorities and other agencies on planning policy and the operation of the planning system. Section 15 relates to 'Conserving and enhancing the natural environment'.

2.1.2 Relevant policies in relation to planning application include Paragraph 170:

"Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

174. To protect and enhance biodiversity and geodiversity, plans should:

---

<sup>1</sup> National Planning Policy Framework (2019) Ministry of Housing Communities and Local Government

a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and

b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

175. 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 incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.”



## 2.2 Relevant local planning policy

2.2.1 The relevant Local Plan for the Borough is the Local Development Core Strategy which was issued by Hinkley and Bosworth Borough Council in 2008. Policies of particular relevance to the site are summarised in Table 1, below.

**Table 1: Summary of relevant biodiversity local planning policy**

Policy	Description
Local Development Core Strategy	
Policy 4 – Development in Burbage	<p><i>To ensure development contributes to Burbage's character and sense of place and that the village's infrastructure can accommodate the new development, the council will:</i></p> <ul style="list-style-type: none"> <li><i>Safeguard land to develop extended GP surgery premises for the existing primary care providers in Burbage to be delivered by the PCT and through developer contributions.</i></li> <li><i>Protect and preserve the open landscape to the east which provides an important setting for the village and seek to enhance the landscape structure which separates the village from the M69 corridor as supported by the Hinckley &amp; Bosworth Landscape Character Assessment.</i></li> <li><i>Address the existing deficiencies in the quality, quantity and accessibility of green space and play provision in Hinckley as detailed in the council's most up to date strategy and the Play Strategy, particularly in relation to new equipped play provision. New green space and play provision will be provided where necessary to meet the standards set out in Policy 19.</i></li> <li><i>Deliver the strategic green infrastructure network detailed in Policy 20. To achieve this, strategic interventions involving the Sketchley Brook Corridor and Burbage Allotments will be implemented.</i></li> <li><i>Deliver safe, high quality cycling routes as detailed in Policy 5, with particular focus on routes to Burbage local centre and schools, existing and proposed residential and employment areas, community and leisure facilities, the Hinckley town centre, railway station and bus station and into the countryside to provide an alternative to car travel and encourage physical exercise.</i></li> <li><i>Require new development to respect the character and appearance of the Burbage Conservation Area by incorporating locally distinctive features of the conservation area into the development.</i></li> <li><i>Require development to be of the highest environmental standards in line with Policy 24.</i></li> </ul>
Policy 20 – Green Infrastructure	<p><i>The implementation of the Green Infrastructure Network as outlined on the Key Diagram is a key priority of the council. To assist delivery of this plan, the following strategic interventions will be supported:</i></p> <p><i>Burbage Common and Woods - Increase the size of the site to increase both the community value and biodiversity holding capacity and improve access to the site, particularly for pedestrians and cyclists.</i></p>

Policy	Description
Policy 21 – National Forest	<p>To support the implementation of the National Forest to the north east of the borough, proposals that contribute to the delivery of the National Forest Strategy (increasing woodland cover; enhancing biodiversity; developing a new woodland economy for timber products and wood fuel energy; outdoor recreational and sports provision; and tourism developments, especially overnight quality accommodation linked to tourism in the Forest) will be supported provided that:</p> <ul style="list-style-type: none"> <li>• The siting and scale of the proposed development is appropriately related to its setting within the Forest.</li> <li>• The development respects the character and appearance of the wider countryside and</li> <li>• The development does not adversely affect the existing facilities and working landscape of either the Forest or the wider countryside.</li> </ul> <p>Within the National Forest new developments will be required to reflect the Forest context in their accompanying landscape proposals. Developments shall provide on-site or nearby landscaping that meets the National Forest development planting guidelines. Landscaping will generally involve woodland planting, but can also include creation and management of other appropriate habitats, open space provision and the provision of new recreational facilities. The appropriate mix of landscaping features will depend upon the setting and the opportunities that the site presents. In exceptional circumstances, where planting and landscaping cannot be accommodated on or nearby the development site due to lack of land, a commuted sum will be negotiated. This will be towards the cost of purchasing land for planting, creating a new woodland, providing public access to it and maintaining the site for at least 5 years. Commuted sums will normally be paid to the local authority, who in partnership with the National Forest Company will decide how they should be utilised. 4.64 4.65 4.66 68 Adopted Core Strategy 2009 Best practice guidance on the creation and future management of Forest-related planting and landscaping schemes should be followed, as set out in the National Forest Company Guide for Developers and Planners.</p>

## 2.3 Natural Environment and Rural Communities Act

2.3.1 In Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act, which came into force on 1st Oct 2006 requires the Secretary of State to publish “a list of habitats and species which are of principal importance for the conservation of biodiversity in England”. This list guides decision-makers such as councils and statutory undertakers, as to their duty under Section 40 of the NERC Act, to “have regard to the conservation of biodiversity in England” in day-to-day decisions.

2.3.2 There are currently 56 habitats of principal importance and 943 species of principal importance included on the S41 list. The habitats recorded were considered against the list of species likely in the site's geographical area and supporting habitats.

## **2.4 Leicestershire and Rutland Biodiversity Action Plan**

2.4.1 The Leicestershire and Rutland Biodiversity Action Plan (BAP) (2016) identifies habitat and species conservation targets and actions for the county. Species and habitat included on the BAP have been considered, where relevant, in the sections below.

### **3.0 METHODOLOGY**

#### **3.1 Study area**

3.1.1 The study area is the application boundary shown on Figure 1. The study area was extended beyond the site where appropriate to undertake species-specific appraisals as detailed below.

#### **3.2 Desk study**

3.2.1 The desktop study was undertaken in May 2019 and included:

- Leicestershire and Rutland Environmental Record Centre (LRERC);
- Multi Agency Geographic Information for the Countryside (MAGIC) website<sup>2</sup>,
- Ordnance Survey (OS)<sup>3</sup>, and
- Aerial imagery<sup>6</sup>.

3.2.2 The geographical extent of the search area for biodiversity information was related to the significance of sites and species and potential zones of influence which might arise from development within the site. For this site the following search areas were considered to be appropriate:

- 10km around the site boundary for sites of International Importance (e.g. Special Area of Conservation (SAC), Special Protection Area (SPA), Ramsar site));
- 1km around the site boundary for sites of National or Regional Importance (e.g. Sites of Special Scientific Interest (SSSI)), protected or otherwise notable species and non-statutory designated sites of County Importance (e.g. Local Wildlife Sites (LWS);
- 1km for ancient woodland, and
- 2km for biological records.

---

<sup>2</sup> www.magic.gov.uk accessed May 2019

<sup>3</sup> www.bing.co.uk accessed May 2019



- 3.2.3 No pre-application consultation relating to ecology was undertaken at the time of writing this report. No previous ecological information relating to the site was identified.

### **3.3 Field survey**

#### Flora

- 3.3.1 HLPC carried out an Extended Phase 1 Habitat Survey of the site on 23<sup>rd</sup> May 2019. The survey was undertaken by an ecologist with 9 years' experience in conducting Phase 1 Habitat Surveys. The survey was undertaken in accordance with 'Extended Phase 1' methodology<sup>4</sup>.
- 3.3.2 Specific habitat features were mapped using Target Notes (TN) to record ecological features of particular note.

#### Fauna

- 3.3.3 The fauna included within this assessment is based on the habitats present, data from the desk-based searches, and the following legislation<sup>5</sup>:
- Wildlife and Countryside Act 1981 (as amended);
  - The Protection of Badgers Act 1992;
  - The Conservation of Habitats and Species Regulations 2017, and
  - The NERC Act 2006 – S41 Species of Principal Importance (SPI) for the conservation of biodiversity.

#### *Great crested newts*

- 3.3.4 Waterbodies within 500m of the site boundary were identified using online Ordnance Survey maps and aerial imagery<sup>6</sup> and were assessed for their suitability to support great-crested newts *Triturus cristatus* using a Habitat Suitability Index (HSI). The HSI is a numerical index, between 0 and 1. Values close to 0 indicate unsuitable habitat, 1 represents optimal habitat (Oldham et al., 2000)<sup>7</sup>. Ponds which were assessed as having potential to

---

<sup>4</sup> Joint Nature Conservation Committee (2010) Handbook for Phase 1 Habitat Survey. A Technique for Environmental Audit.

<sup>5</sup> See [www.legislation.gov.uk](http://www.legislation.gov.uk)

<sup>6</sup> [www.bing.com/maps](http://www.bing.com/maps) accessed May 2019

<sup>7</sup> Oldham et al., 2000. Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). Herpetological Journal 10, 143-155

support great crested newts underwent further analysis using environmental DNA (eDNA) testing through SureScreen Scientific. The testing strictly followed WC1067 (Biggs et al 2014)<sup>8</sup>, the accepted eDNA screening method by Natural England.

### *Reptiles*

- 3.3.5 An assessment of the suitability of the habitats present to support common reptile species was undertaken. In accordance with current guidance, this assessment involved a review of habitats and habitat structure for suitable shelter for reptiles such as areas of scrub and woodpiles, grassland with well-developed and varied structure, areas suitable for basking, large tussocks etc.
- 3.3.1 The site was subjected to a presence/absence reptile survey using Artificial Cover Objects (ACO's) or refugia according to Froglife guidelines (1999)<sup>9</sup> in September 2019. Artificial Cover Objects were constructed of c. 0.5m x 0.5m sheeting using a roofing felt as recommended by Froglife. In addition, natural refugia features already present i.e. rubble/brick piles, wooden planks, were searched.
- 3.3.2 The artificial refugia were left to 'bed in' for approximately one month. Once the artificial refugia had bedded in, seven non-consecutive survey visits were carried out throughout September 2019 to determine the presence/absence of reptile species on site. During each visit, the artificial refugia were checked visually from a distance to determine whether reptiles were basking on their surface. The artificial refugia were then carefully approached and lifted to check for reptiles sheltering beneath them.
- 3.3.3 Weather during the survey visits was conducive for surveying for reptiles, being dry and warm or mild. Froglife guidelines (1999) recommend ideal temperatures for reptile survey between 9°C and 18°C.

---

<sup>10</sup> Biggs J, Ewald N, Valentini A, Gaboriaud C, Griffiths RA, Foster J, Wilkinson J, Arnett A, Williams P and Dunn F 2014. Analytical and methodological development for improved surveillance of the Great Crested Newt. Defra Project WC1067. Freshwater Habitats Trust: Oxford.

<sup>9</sup> Froglife (1999). Froglife Advice Sheet 10: Reptile Survey. Froglife, London

*Birds*

- 3.3.6 Bird species identified at the time of survey were noted and nesting birds recorded as seen. An assessment of habitats was undertaken to determine the likely value to breeding and foraging birds.

*Bats*

- 3.3.7 The tree assessments were undertaken from ground level by a licensed bat ecologist with the aid of a torch and binoculars, where required. During the survey Potential Roosting Features (PRF) for bats following current best practice<sup>10, 11, 12</sup> were recorded.
- 3.3.8 The potential for the site and immediate surrounds to support foraging and commuting bats was also assessed, with particular regard given to the presence of continuous treelines, watercourses and hedgerows providing good connectivity in the landscape, and the presence of varied habitat such as scrub, woodland, grassland and open water in the vicinity.

*Badgers*

- 3.3.9 Areas of suitable habitat were surveyed for evidence of badger *Meles meles* activity, such as mammal paths, setts, snuffle holes or latrines.

*Invertebrates*

- 3.3.10 The habitats were assessed for their potential to support a diverse assemblage of priority invertebrates.

*Other notable species*

- 3.3.11 Signs of other notable species were recorded as seen.

*Legally controlled species*

- 3.3.12 Evidence of species listed on Schedule 9 of the Wildlife and Countryside Act (1981) as amended were recorded as seen.

---

<sup>11</sup> Bat Conservation Trust (BCT) 2016. Bat Surveys for Professional Ecologists, Good Practice Guidelines, 3rd Edition

<sup>12</sup> Bat Conservation Trust (BCT) 2016. Bat Surveys for Professional Ecologists, Good Practice Guidelines, 3rd Edition

<sup>13</sup> BCT (2015) Surveying for Bats in Trees and Woodland – Guide

### *Scoped out*

- 3.3.4 No watercourses were recorded within 30m of the site considered suitable for supporting otters *Lutra lutra*, water vole *Arvicola amphibious* and white-clawed crayfish *Austropotamobius pallipes*. A ditch was recorded in association with a hedgerow but was considered unsuitable for supporting populations of these species due to the likelihood of infrequently holding water and sub-optimal bank and substrate profile.

## **3.4 Assessment methodology**

- 3.4.1 The importance of ecological features and impact assessment methodology is based on CIEEM guidelines for ecological impact assessment in the UK and Ireland<sup>13</sup>. Significant effects is defined as “*an effect that either supports or undermines biodiversity conservation objectives for important ecological features*” (CIEEM, 2016). A significant effect does not necessarily equate to an affect so severe that consent for a project should be refused planning permission if they can demonstrate following the mitigation hierarchy (avoid, mitigate, compensate) has been applied as part of the decision-making process. Significant effects are qualified with a scale: international and European, national, regional, metropolitan/county, local or within the zone of influence (defined here as site level).
- 3.4.2 This report assumes that construction will commence within 1-2 years of the date of the assessment in accordance with the British Standard 42020:2013<sup>14</sup> unless otherwise stated.

### Determining importance

- 3.4.3 Determining the importance of identified ecological features is based on CIEEM guidance<sup>15</sup>. Various characteristics contribute to the importance of ecological features including:
- naturalness;

---

<sup>13</sup> CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland

<sup>14</sup> BSI (2013) Biodiversity – Code of Practice for Planning and Development.

<sup>15</sup> CIEEM (2016) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester



- animal or plant species, sub-species or varieties that are rare or uncommon, either internationally, nationally or more locally, including those that may be seasonally transient;
- ecosystems and their component parts, which provide the habitats required by important species, populations and/or assemblages;
- endemic species or locally distinct sub-populations of a species;
- habitat diversity;
- habitat connectivity and/or synergistic associations;
- habitats and species in decline;
- rich assemblages of plants and animals;
- large populations of species or concentrations of species considered uncommon or threatened in a wider context;
- plant communities (and their associated animals) that are considered to be typical of valued natural/seminatural vegetation types, including examples of naturally species-poor communities;
- species on the edge of their range, particularly where their distribution is changing as a result of global trends and climate change.

3.4.4 Geographic context is also considered within a defined geographical context.

- International and European.
- National.
- Regional.
- Metropolitan, County, vice-county or other local authority-wide area.
- Local (including district or borough context) or within a zone of influence (here termed the site).

### **3.5 Assessment limitations**

- 3.4.1 Ecological surveys are limited by factors that affect the presence of plants and animals, such as the time of year, weather, migration patterns and behaviour. The initial survey was undertaken in May. This is considered a optimal time of year for botanical surveys.
- 3.4.2 Due to safety restrictions, it was not possible to fully access the land proposed for development due to this being occupied by young calves. Parts of the site to the west were not safely accessible and all field boundaries were inspected from immediately adjacent land.
- 3.4.3 Any absence of desk study records cannot be relied upon to infer absence of a species/habitat as the absence of records may be a result of under-recording within the given search area.
- 3.4.4 Phase 1 Habitat survey aimed to characterise the habitat on site and is not intended to give a complete list of plant species present.

## 4.0 RESULTS

### 4.1 Ecological designations

#### Internationally designated sites for nature conservation

4.1.1 One internationally statutory designated site for nature conservation was recorded within 10km of the site, Ensor's Pool Special Area of Conservation (SAC) situated c. 9.5km west of the site.

4.1.2 This SAC contains a large population of white-clawed crayfish and provides an important refuge for this protected species. This SAC is considered to be of importance to nature conservation up to an international level.

#### Nationally designated sites for nature conservation designation

4.1.3 No nationally designated sites for nature conservation were recorded within 1km of the site.

#### Non-statutorily designated sites for nature conservation designation

4.1.4 There are numerous non-statutorily designated sites/features for nature conservation identified within 1km of the site. These comprise individual habitat features, including tree and hedgerows, as opposed to nature conservation sites. In view of the high volume of records returned, details of the names and locations of these features located within a 500m radius only are given in Table 2 below.

**Table 2: Non-statutorily designated sites for nature conservation**

Site Name	Approximate distance and direction from site
90804 – Workhouse Lane Hedgerow 2	Forming eastern site boundary
90810 – Hedgerow Oak Tree	50m west
91171 – Burbage, Workhouse Lane Veteran Ash and Field Maple	260m south-east
90811 – Long Field Hedgerow	280m west
90813 – Horse Field Hedgerow	290m west
St Anne's church, Oxenhall pLWS	670m
Stonybridge Cottage Meadows LWS	770m

4.1.5 The data search identified that the hedgerow forming the eastern boundary of the site is designated LWS: 90804 - Lane Hedgerow 2. The location of this LWS in context with the site is shown in Figure 2, overleaf.

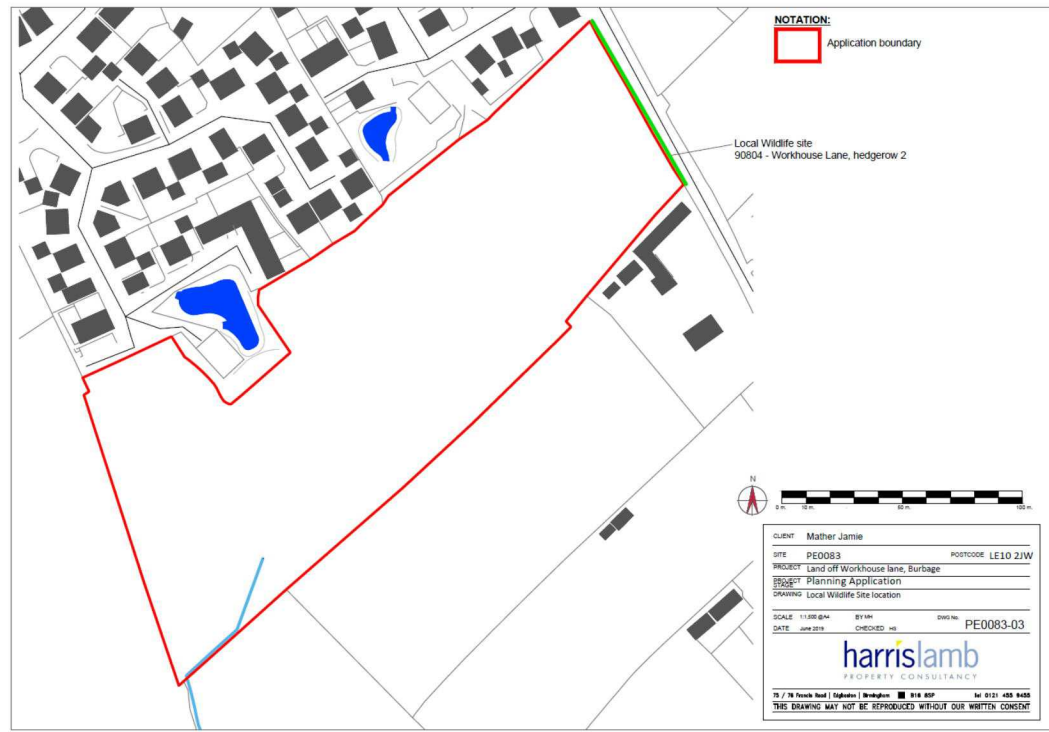


Figure 2: Workhouse Lane LWS

- 4.1.6 These sites are considered to be of importance to nature conservation up to a local level.

#### Ancient woodland

- 4.1.7 No ancient woodland was identified within 1km of the site.

#### Priority habitats

- 4.1.8 The site does not contain priority habitats according to MAGIC although deciduous woodland has been recorded at two locations, approximately 300m south and west of the development boundary.

### **4.2 Species records**

- 4.2.1 Table 3 below provides a summary of the key protected/notable species records provided by WBRC within 2km of the site.



**Table 3: Summary of key protected species/notable species**

Species	Latin Name	Approximate distance from site	Year	Comments
Bat	<i>Chiroptera</i>	10m	2009	Roost
Common frog	<i>Rana temporaria</i>	10m	2013	-
Common toad	<i>Bufo bufo</i>	10m	2013	-
Smooth newt	<i>Lissotriton vulgaris</i>	10m	2013	-
Barn owl	<i>Tyto alba</i>	700m	2010	-
Brambling	<i>Fringilla montifringilla</i>	700m	2006	-
Cetti's warbler	<i>Cetti cetti</i>	700m	2017	-
Fieldfare	<i>Turdus pilaris</i>	700m	2009	-
Hobby	<i>Falco subbuteo</i>	700m	2008	-
Peregrine	<i>Falco peregrinus</i>	700m	2017	-
Red wing	<i>Turdus iliacus</i>	718m	2007	-
Badger	<i>Meles meles</i>	>1km	2013	-

### 4.3 Habitats

- 4.3.1 All habitats recorded within the site are described, below and are shown on Figure 3. Target notes are provided in Appendix 1.

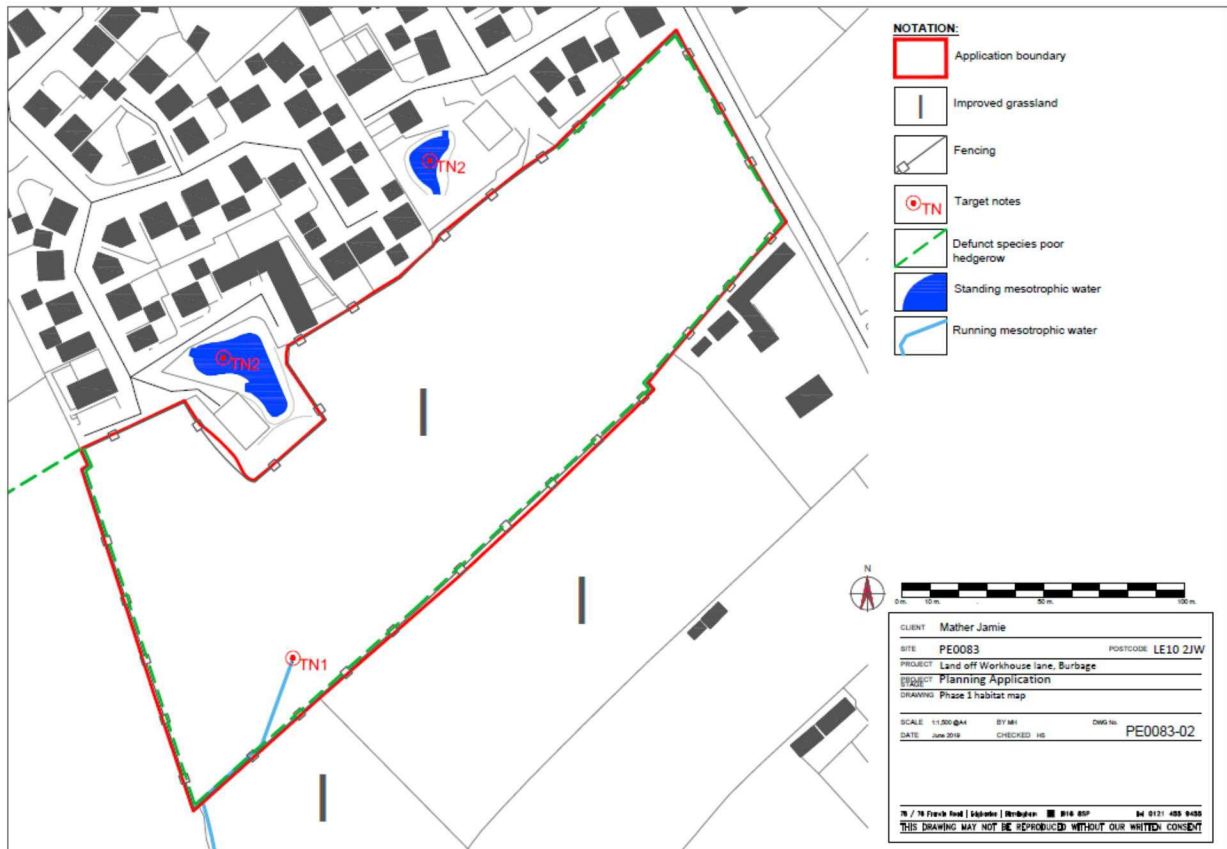


Figure 3: Phase 1 Habitat map (not to scale)

#### Improved grassland

- 4.3.2 The site was dominated by improved grassland field at the time of survey, which is cattle grazed to a short sward (see Photograph 1, below). Improved grassland fields are further present immediately to the south and west of the site, these being less intensively managed. Aside from being characteristically dominated by perennial rye-grass *Lolium perenne*, this habitat also supports occasional meadow foxtail *Alopecurus pratensis*, fescue *Festuca* sp., and Yorkshire fog *Holcus lanatus*.
- 4.3.3 As only common species were recorded and as the habitat is common in the local area, improved grassland was considered important at a site level only.



**Photograph 1 –Improved Grassland**

Standing Water - Mesotrophic

- 4.3.4 The southern portion of the site supports a spring (TN1; Figure 3) which is distinguishable only by a patch of inundated grassland with occasional rushes *Juncus* spp. This continues to join a wet ditch situated along the south-western site boundary. The spring did not appear to regularly hold standing water and lacked a variety of aquatic species as would be expected by a permanent water body.
- 4.3.5 Given the limited extent of this habitat and low species diversity, it is considered important at a site level only.

Running Water - Mesotrophic

- 4.3.6 A shallow ditch containing a low volume of water and considered likely to frequently dry out is situated beneath a dense hedgerow along part of the southern site boundary. This was apparently devoid of aquatic vegetation, which is likely due to the channel being shaded, and only occasional watercress *Nasturtium officinale* was observed.
- 4.3.7 Given the limited extent of this habitat and low species diversity, it is considered important at a site level only.

Hedgerow – defunct – Species-poor

- 4.3.8 The hedgerow on Workhouse Lane is designated as a Local Wildlife Site due to supporting a range of species; dog rose *Rosa canina*, hawthorn *Crataegus monogyna*, elm *Ulmus* sp., elder *Sambucus nigra*, blackthorn *Prunus spinosa*, ash *Fraxinus excelsior*, field rose *Rosa arvensis*, holly *Ilex aquifolium*, and willow *Salix* sp.
- 4.3.9 The remaining site boundary is made up of gappy, species-poor hedgerows. These were composed mainly of hawthorn with occasional bramble, elder *Sambucus nigra* and hazel *Corylus avellana* with an understory of nettles and cleavers *Galium aparine*. All hedgerows across the site appeared to be routinely managed.
- 4.3.10 In view of the gappy nature and limited species composition of hedgerows on the site, with the exception of the hedgerow on Workhouse Lane, these were not assessed as being 'important' under the defined Wildlife and Landscape classifications given within the Hedgerow Regulations 1997.
- 4.3.11 The hedgerow on Workhouse Lane is considered to be important under the Wildlife and Landscape criteria of the Hedgerow Regulations.
- 4.3.12 All hedgerows were comprised of one or more woody, UK native species and qualify as habitats of principal importance under Section 41 of the NERC Act (2006).
- 4.3.13 Collectively the hedgerows are considered to be up to local value for nature conservation due to the habitat connectivity they provide in the landscape.

**4.4 Species**

Amphibians

- 4.4.1 Records for smooth newt, common frog and common toad were returned for one of the (easternmost) ponds located immediately beyond the northern site boundary. However, no records for great crested newts were returned by LRERC.
- 4.4.2 Two attenuation ponds are located immediately beyond a hedgerow defining the northern site boundary. These are likely to have been introduced as part of the adjacent residential development.



- 4.4.3 The eastern pond, centred at OSGR SP 44231 91939, is medium sized and containing marginal vegetation (predominantly branched bur-reed *Sparganium erectum* and bulrush *Typha latifolia*). The pond is bound to the north by amenity grassland which appeared to be unmanaged and colonised by ruderals, including broad-leaved dock *Rumex obtusifolius* and common stinging nettle *Urtica dioica* (see Photograph 2).



**Photograph 2 – Eastern Pond**

- 4.4.4 The western pond, centred at OSGR SP 44165 91864, is medium-large sized and floristically comparable to the aforementioned eastern pond. The pond edges are flanked with dense bramble *Rubus fruticosus* agg and hawthorn *Crataegus monogyna* scrub with occasional introduced trees, including rowan *Sorbus aucuparia* and silver birch *Betula pendula*.
- 4.4.5 Sampling and eDNA analysis of the two ponds situated immediately beyond the northern site boundary was undertaken at the time of the survey. Both ponds returning 'negative' results for great-crested newts. Great-crested newts are therefore not considered to be a receptor with respect to the proposed development and are not considered further in this report.
- 4.4.6 The site offers some suitable terrestrial habitats for common amphibian inhabitancy; particularly the existing hedgerow situated along the northern

boundary. Given the abundance of similar habitats within the wider area, the habitats on site are considered to be of importance to amphibians during their terrestrial phase at a site level only.

#### Reptiles

- 4.4.7 No records of reptiles were returned by LRERC for a 2km radius of the site.
- 4.4.8 The reptile survey did not record any reptile species (see Appendix 3 for data) and as such reptiles are not considered to be a receptor with respect to the proposed development.

#### Birds

- 4.4.9 LRERC returned records for a number of bird species listed under Schedule 1 of the Wildlife and Countryside Act for a 1km OS grid square, centred 700m north of the site.
- 4.4.10 A small variety of common bird species were recorded during the survey, including magpie *Pica pica*, black bird *Turdus merula*, house sparrow *Passer domesticus*, starling *Sturnus vulgaris* and carrion crow *Corvus corone*. An apparently active starling nest was also observed within a mature hawthorn tree along the south-western site boundary.
- 4.4.11 Hedgerows along the site perimeter provide suitable bird nesting and foraging habitat. However, given the abundance of similar habitats within the wider area the site is considered to be of importance to birds for nesting and foraging at a site level only.

#### Bats

##### *Roosting bats*

- 4.4.12 The site lacked any features to accommodate roosting bats. However, data returned from LRERC indicated the presence of a bat roost at White House Farm in 2009. The record appears to be associated with one of the farm buildings situated >10m from the south-eastern site boundary.

##### *Foraging/commuting*

- 4.4.13 Hedgerows established along the site boundary are likely to provide some value to foraging bats and could be of importance at a local level for foraging and commuting bats.

Badger

- 4.4.14 A small number of records of badger beyond 1km of the site were provided by LRERC, although no records were returned for the site itself. A series of rabbit *Oryctolagus cuniculus* burrows and possible warrens were noticed along the site field boundaries, indicating that the site is likely to also have suitable substrate and ground profile for badgers to establish setts.
- 4.4.15 No evidence of badger was recorded on site, or immediately adjacent to it, at the time of survey. However, due to safety constraints, a proportion of the site could not be accessed at the time of the survey due to it supporting young calves. No field signs of badger activity were recorded.

*Invasive Non-native species*

- 4.4.16 The data search did not return records of invasive non-native species and no such species were identified during the survey. However, due to safety constraints, a proportion of the site could not be accessed at the time of the survey due to it supporting young calves.

Hedgehog

- 4.4.17 The habitats on the site, particularly hedgerows and grassland, are suitable for supporting this species and it is considered to be of importance to hedgehogs at a site level.



## **5.0 ASSESSMENT OF EFFECTS AND MITIGATION MEASURES**

### **5.1 The proposed development**

- 5.1.1 The following assessment is based on BHB Architects Drawing 3518-SK01A to accompany an outline application for up to 40 dwellings, public open space and associated infrastructure with all matters reserved other than access.

### **5.2 Statutory and non-statutory designated sites for nature conservation**

- 5.2.1 The habitats on site are not considered likely to support white-clawed crayfish that are a primary designating feature of Ensor's Pool SAC situated 9.5 km west of the site and therefore it is not considered that likely that an Appropriate Assessment will be required.
- 5.2.2 The proposed site access is sited to use the existing field entrance to minimise hedgerow loss. To accommodate safe visibility splays a short section the hedgerow off Workhouse Lane LWS will require removal.
- 5.2.3 The proposed scheme includes replacement native planting, through gap planting of retained field boundary hedgerows. This will enhance the value of the overall site hedgerow network in terms of connectivity and species diversity and is considered to enhance the value of hedgerows at a site level. The exact native species mix and management of hedgerows could be secured through a Habitat Management Plan and secured via a planning condition.

### **5.3 Habitats**

#### Potential impacts

- 5.3.1 The proposed development may require land-take of improved grassland, removal of a small section of hedgerow (considered above) and enhancement of retained hedgerows.
- 5.3.2 The proposed scheme open space which includes wildflower meadow, swales and an attenuation pond which are considered to enhance the biodiversity of the site, which is currently dominated by improved, species poor grassland.



Mitigation measures

- 5.3.3 The details of planting mixes in the public open space, hedgerow gap planting mixes, and soft landscaping can be secured through a Habitat Management Plan and secured via a planning condition.
- 5.3.4 Retained hedgerows should be protected through the construction phase following advice set out within the British Standard Tree Survey which accompanies the planning application.

Significance

- 5.3.5 Assuming a detailed and sensitive landscape scheme can be secured through a planning condition, it is anticipated that the proposed development would result in a net enhancement of site biodiversity.

Enhancement

- 5.3.6 No further enhancement measures not already embedded into the design above are anticipated to be required.

Monitoring

- 5.3.7 The success of the landscape scheme could be monitored through standard landscape management practices, and/or through implementing a HMP and secured via planning condition.

Birds

*Potential impacts*

- 5.3.8 The proposed development will require the loss of small sections of hedgerows that could be used for nesting by a range of common urban and farmland bird species.

*Mitigation measures*

- 5.3.9 As a precautionary approach, vegetation should be removed (if required) outside the nesting bird season (nesting season runs March-August, inclusive) where practicable. Should these works be scheduled during the nesting bird season they should be checked by a suitably experienced ecologist immediately beforehand. If active nests are found, areas supporting nests must be left undisturbed until all birds have fledged.

- 5.3.10 The proposed scheme includes gap planting of existing hedgerows and a wildflower meadow and as such a net enhancement for nesting and foraging birds is anticipated.

*Significance*

- 5.3.11 Assuming the above measures are secured through a planning condition it is anticipated that the proposed development would not result in a adverse impact to nesting/foraging bird populations.

*Enhancement*

- 5.3.12 Installation of 4no. suitable nesting bird boxes on introduced buildings and/or retained trees would result in a net enhancement of nesting bird habitat. The location and type of nesting bird boxes could be secured through a planning condition.

*Monitoring*

- 5.3.13 No additional monitoring is considered to be required.

Bats

*Potential impacts*

- 5.3.14 The removal of a small section of hedgerow along Workhouse Lane is not considered likely to adversely affect bat foraging and commuting activity, as the section to be removed is around the existing field entrance (an existing gap) and along the road. The remaining hedgerows will be gap planted, enhancing their value for foraging and commuting bats.

*Mitigation measures*

- 5.3.15 Should the scheme layout change and require removal of hedgerows on site other than the entrance off Workhouse Lane, bat transect surveys should be undertaken to understand the impact to community and foraging bats.
- 5.3.16 To minimise disturbances to foraging and commuting bats, artificial lighting introduced during the construction works should be fitted with a directional cowl. Lighting should then be positioned in such a way that avoids light spill over hedgerow habitats along the site boundaries.

- 5.3.17 The detailed lighting scheme should be designed in conjunction with an ecologist so that any introduced/permanent lighting is sensitive to retained hedgerows and foraging/commuting bats.

*Significance*

- 5.3.18 Assuming that the above measures are secured through a planning condition, it is anticipated that the proposed development would not result in an adverse impact to bat populations.

*Enhancement*

- 5.3.19 It is recommended that at least 5no. bat boxes are installed on introduced buildings and/or trees on site. The location and type of bat box could be secured through a planning condition.

*Monitoring*

- 5.3.20 No additional monitoring is considered to be required.

Badgers

*Potential impacts*

- 5.3.21 No signs of badgers were recorded during the survey, but access was restricted in some areas. Badgers are highly mobile and can establish or re-open a disused sett at any time. Should they have become established within 30m of the site prior to construction there is a risk of disturbance from construction activities.

*Mitigation measures*

- 5.3.22 Prior to construction commencing, a badger update survey should be undertaken by a suitable experienced ecologist. Should a badger be found, appropriate mitigation should be put in place prior to works commencing within 30m of the identified sett.

*Significance*

- 5.3.23 Assuming the above measures are secured through a planning condition it is anticipated that the proposed development would not result in an adverse impact to badger populations, should they be present at the time of works.

*Enhancement*

- 5.3.24 None anticipated to be required at this stage.

*Monitoring*

- 5.3.25 No additional monitoring is considered to be required at this stage.

*Invasive Non-native species*

- 5.3.26 The data search did not return records of invasive non-native species and no such species were identified during the survey. However, due to safety constraints, a proportion of the site could not be accessed at the time of the survey due to it supporting young calves.

*Mitigation measures*

- 5.3.27 Prior to construction commencing, an update inspection of the site for the presence of invasive species should be undertaken by a suitable experienced person.

Other notable species

*Potential impacts*

- 5.3.28 Hedgerows on site could be used by hedgehog for foraging and shelter. The introduction of boundary treatments (e.g. fences) has the potential to reduce the accessibility of the site for foraging and commuting hedgehogs across the site, although the retained hedgerows should retain habitat connectivity around the site.

*Mitigation measures*

- 5.3.29 Consideration should be given to including a small gap (13cm by 13cm) to allow hedgehogs to pass through within new boundary fences.

*Significance*

- 5.3.30 Assuming the above measures are secured through a planning condition it is anticipated that the proposed development would not result in a adverse impact to hedgehogs.

*Enhancement*

- 5.3.31 No enhancement measures considered to be required.

*Monitoring*

5.3.32 No monitoring is considered to be required.

## **6.0 CONCLUSIONS**

- 6.1.1 Based on the data collected and information provided about the proposed development, it is not anticipated that the development as proposed would result in an adverse ecological impact and biodiversity net gain could be achieved within the scheme.
- 6.1.2 Impacts to species and habitats identified within this report could be mitigated, enhanced and secured through appropriate planning conditions. On this basis the proposed development accords with planning policy.

## APPENDICES

### Appendix 1 - Target notes for Phase 1 Habitat Survey

Target Notes (TN)	Description
TN1	Spring
TN2	Ponds

### Appendix 2 - Habitat Suitability Index

Easternmost Pond (OSGR SP 44231 91939)

Pond Attributes	HSI Score
Location	1
Area	0.2
Permanence	1
Water quality	0.67
Shade	1
Fowl	1
Fish	1
Pond count	0.65
Terrestrial habitat	0.67
Macrophytes	0.5
<b>Total</b>	<b>0.70 (Good)</b>



Westernmost Pond (OSGR SP 44165 91864)

Pond Attributes	HSI Score
Location	1
Area	0.3
Permanence	1
Water quality	0.67
Shade	0.5
Fowl	1
Fish	1
Pond count	0.65
Terrestrial habitat	0.67
Macrophytes	0.9
<b>Total</b>	<b>0.72 (Good)</b>



### Appendix 3 – Reptile survey results

Survey Number	1	2	3	4	5	6	7
Date	04.09.19	11.09.19	13.09.19	18/09/2019	20/09/2019	28/09/2019	02/10/2019
Temperature (°C)	14	15	14	13	16	16	15
Weather conditions	sunny, clear skies	light cloud, dry	light cloud, dry	Clear sky, dry	Clear sky, dry	Clear sky, dry	Clear sky, dry, windy (3 BS)
Time start (h)	09:35	09:30	10:30	09:30	09:15	09:30	16:15
Time end (h)	10:00	10:00	11:00	10:50	10:35	10:00	16:35

<b>Total no. reptiles recorded</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
Grass Snake	0	0	0	0	0	0	0
Common Lizard	0	0	0	0	0	0	0
Adder	0	0	0	0	0	0	0
Slow Worm	0	0	0	0	0	0	0
Smooth Snake	0	0	0	0	0	0	0
Sand Lizard	0	0	0	0	0	0	0
Amphibians/ Other	0	0	0	0	0	0	0