

# WOLD ECOLOGY LTD

2 Redwood Gardens, Driffield,  
East Riding of Yorkshire. YO25 6XA  
01377 200242



Chris Toohie M Sc. MCIEEM  
chris.toohie@woldecology.co.uk  
www.woldecology.co.uk

## Killingwoldgraves Lane, Bishop Burton

### EXTENDED PHASE 1 HABITAT SURVEY and PRELIMINARY ECOLOGICAL APPRAISAL

February 2020

	Staff Member	Position
Extended Phase 1 Habitat Survey and Preliminary Ecological Appraisal :	Chris Toohie MSc MCIEEM Daniel Lombard BSc MCIEEM	Ecologist
Report prepared by :	Chris Toohie MSc MCIEEM Daniel Lombard BSc MCIEEM	Ecologist
Signed off by :	Chris Toohie MSc MCIEEM	Signature protected
Notes :	This report contains sensitive information concerning protected species and caution should be exercised when copying and distributing to third parties.	
Disclaimer :	This report and its content are copyright © 2020 Wold Ecology Ltd. All rights reserved. You may not distribute or commercially exploit the content of this report until a non-draft version of this document has been issued. Any unauthorised redistribution or reproduction of part or all the contents of this report will constitute an infringement of copyright.	

## TABLE OF CONTENTS

1.0	EXECUTIVE SUMMARY	3
2.0	INTRODUCTION	5
3.0	COMPANY PROFILE	8
4.0	PHASE 1 HABITAT SURVEY METHODOLOGY	11
5.0	LIMITATION OF FIELD SURVEY	12
6.0	DESK TOP STUDY	13
7.0	PHASE 1 FIELD SURVEY RESULTS	22
8.0	SPECIES APPRAISAL	26
9.0	HABITATS APPRAISAL	38
10.0	BIBLIOGRAPHY	42
11.0	APPENDICES	44

**1.0 EXECUTIVE SUMMARY**

- 1.1 In February 2020, Wold Ecology was commissioned to undertake an Extended Phase 1 Habitat Survey at land to the west of Killingwoldgraves Lane, Bishop Burton (national grid reference TA 00135 39471) in East Yorkshire.
- 1.2 In order to accomplish the brief, a desk top study, external consultation, an extended phase 1 field survey and preliminary ecological appraisal was undertaken by Wold Ecology staff.
- 1.3 The habitats within the Application Site comprise bare ground, scattered trees, tall ruderal vegetation, a residential dwelling and grasslands. There are no statutory or non-statutory sites within the site boundary.
- 1.4 The proposed development involves site clearance and a new development including services and infrastructure.
- 1.5 The field survey and ecological appraisal targeted the following species and habitats relevant to the Application Site and the development proposal. The field surveys and preliminary ecological appraisal results are summarised below:

		<b>Application Site Status</b>
<b>Phase 2 bat activity surveys between May and September.</b>	<b>Bats</b>	<b>The residential dwelling has been assessed as having a low suitability to support roosting bats. Additional bat activity survey work between May and August will be required to determine the impact on bat populations. The bat activity survey should target the residential dwelling to be demolished.</b>
<b>Proceed with caution, timing constraints</b>	<b>Birds</b>	The site is suitable for nesting birds with various designations. Any trees, shrubs, vegetation and buildings to be removed should be cleared outside of the bird nesting season (i.e. clearance should be undertaken between mid-September and early February inclusive) or be carefully checked by an ecologist to confirm no active nests are present - prior to removal during the summer period. If nesting birds are found during the watching brief, works will need to stop until the young have fledged.
<b>No ecological constraints.</b>	<b>Birds</b>	No further surveys recommended.
	<b>Badger</b>	
	<b>Great crested newt</b>	
	<b>Reptiles</b>	
	<b>Water vole</b>	
	<b>Otter</b>	
	<b>Habitats</b>	There are no Statutory or non-statutory sites located within or adjacent to the Application Site. No Biodiversity Action Plan habitats are located within or adjacent to the Application Site.

- 1.6 This report is valid until **August 2021**. After this time, additional surveys need to be undertaken to confirm that the status of the site for protected species, site habitat composition and conclusions within this report have not changed.
- 1.7 Species list within this report may be forwarded to the local biodiversity records centre to be included on their national database. No personal information will be sent. Please contact Wold Ecology if you do not wish the species accounts and grid references to be shared.

## 2.0 INTRODUCTION

- 2.1 In February 2020, Wold Ecology was commissioned to undertake an Extended Phase 1 Habitat Survey at land to the west of Killingwoldgraves Lane, Bishop Burton (national grid reference TA 00135 39471) in East Yorkshire.
- 2.2 An ecological assessment is a requirement of the Local Planning Authority (LPA), as part of the planning application process. This is specified in the following legislation:
- National Planning Policy Framework (NPPF): Conserving and Enhancing the Natural Environment.
- 2.3 To protect and enhance biodiversity and geodiversity, plans should:
- 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.
  - 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.
- 2.4 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.
- 2.5 The following should be given the same protection as habitats sites:
- a) potential Special Protection Areas and possible Special Areas of Conservation.
  - b) listed or proposed Ramsar sites; and
  - c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

- 2.6 In addition, an ecological assessment is also required so that the local authority comply with the Habitats and Species Regulations 2017 and to have regard to the purpose of conserving biodiversity in the exercise of their functions (Natural Environment and Rural Communities (NERC) Act 2006).
- 2.7 Planning authorities must determine whether the proposed development meets the requirements of Article 16 of the EC Habitats Directive before planning permission is granted (where there is a reasonable likelihood of European Protected Species being present). Therefore, during its consideration of a planning application, where the presence of a European protected species is a material consideration, the planning authority must satisfy itself that the proposed development meets three tests as set out in the Directive.
- 2.8 The LPA has to assess whether the development proposal would breach Article 12(1) of the Habitats Directive. If Article 12(1) would be breached, the LPA would have to consider whether Natural England was likely to grant a European protected species licence for the development; and in so doing the LPA would have to consider the three derogation tests:
- a) 'Preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment'
- In addition, the LPA must be satisfied that:
- (b) 'That there is no satisfactory alternative'
  - (c) 'That the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range'.
- 2.9 Relevant Case Law
- Woolley v Cheshire East Borough (2009).
  - R. (Morge) v Hampshire County Council (2011).
  - Prideaux v. Buckinghamshire County Council and Fcc Environmental UK Limited (2013).
- 2.9.1 The rulings summarise that if it is clear or perhaps very likely that the requirements of the Directive cannot be met because there is a satisfactory alternative or because there are no conceivable 'other imperative reasons of over-riding public interest' then the authority should act on that and refuse permission.'
- 2.9.2 The conclusion of the judgement is that LPAs must ensure that the option/alternative that best takes into account all the relevant considerations (not just EPS) should be the preferred option assuming that the other two tests specified in Article 16 (1) are also met.
- 2.9.3 The judgements also clarified that it was not sufficient for planning authorities to claim that they had discharged their duties by imposing a condition on a consent that requires the developer to obtain a licence from Natural England. Natural England considers it essential that appropriate survey information supports a planning application prior to the determination. Natural England does not regard the conditioning of surveys to a planning consent as an appropriate use of conditions.
- 2.10 In order to fulfil the brief, the following has been undertaken:

- A desktop study and consultation.
- Field survey including accessible adjacent land up to 1km.
- An extended phase 1 habitat survey.
- Preliminary ecological appraisal.

2.11 This report describes the findings of the field survey and desktop study whilst identifying the requirement for further ecological surveys to ensure that a comprehensive study is undertaken.

### 3.0 COMPANY PROFILE

- 3.1 Wold Ecology Ltd was established in 2006 and are experienced in providing a bespoke service for environmental management and ecological assessments. Wold Ecology employs several experienced and qualified associates to undertake specialist ecological contracts.
- 3.2 Wold Ecology provides a wide range of specialised advice aimed at integrating business with nature. We specialise in ecological surveys, land management planning and site assessments which include:
- **European Protected Species Surveys**  
Bats, Birds, Great Crested Newts, Water Vole, Badger, Crayfish and Fungi surveys. Phase 1 and Phase 2 NVC Habitat Surveys and Ecological Impact Assessments.
  - **European Protected Species Licenses**  
Bat Licenses - Chris Toohie is one of 153 Natural England Registered Consultant (November 2018) who can hold a Natural England Bat Mitigation Class Licence.  
Great crested newt development license holders. Implementation of licenses (amphibian fencing, destructive searches, watching briefs and post development monitoring).
  - **Arboricultural Surveys.**  
Arboricultural Impact Assessments, Root Protection Zones and CAD drawings.
  - **Ecological Construction Method Statements and Ecological Enhancements Plans.**
  - **Ecological Clerk of Works.**
- 3.3 Wold Ecology is committed to working towards the conservation of our natural heritage. Wold Ecology support The Wolds Barn Owl Study Group, Driffield Millennium Green, Filey Bird Observatory, Cornfield Project (Ryedale Folk Museum), Butterfly Conservation (Yorkshire Branch) and RSPB projects with volunteer staff time and financial resources. Wold Ecology has adopted an important site for nature conservation on Flamborough Head.
- 3.4 Wold Ecology is an Associate Member of the RSPB and Corporate Member of the Bat Conservation Trust.
- 3.5 Surveyor Profile – Chris Toohie M Sc., MCIEEM.
- 3.5.1 Job title: Director.
- 3.5.1.1 Expertise.
- Bat surveys, bats, and wind turbine assessments, writing and implementing bat development licenses, bat sound analysis and monitoring - Natural England Bat Low Impact Class License Registered Consultant
  - Phase 1 habitat field surveys and ecological appraisals including Building Research Establishment Environmental Assessment Method (BREEAM) assessments.
  - Great crested newt and reptile surveys.
  - Management planning, woodland and orchard management and community environmental projects including funding applications.



- 3.5.2 Qualifications.
- M Sc. Arboriculture and Community Forest Management.
  - HND Countryside Management.
  - Great Crested Newt License – 2016-19412-CLS-CLS (held concurrently since 2009).
  - Bat Handling License – RC027 and 2015-12688-CLS-CLS (held concurrently since 2009).
- 3.5.3 Professional Membership.
- Member of the Chartered Institute of Ecology and Environmental Management (held concurrently since 2007).
- 3.6 Surveyor Profile – Daniel Lombard B Sc., MCIEEM.
- 3.6.1 Job title: Senior Field Ecologist.
- 3.6.2 Expertise.
- Phase 1 habitat field surveys and biodiversity assessments including BREEAM assessments.
  - Bat surveys, bat ecology, bats and wind turbine assessments, bat sound analysis and monitoring.
  - Great crested newt and reptile surveys.
  - Mammal surveys including water vole, otter, and badger.
  - Ornithological surveys including bird ringing (ringing officer at Filey Bird Observatory).
  - Invertebrates studies, principally Lepidoptera, Odonata, Coleoptera and Diptera plus habitat management/creation for these groups.
  - Management planning, pond, and wetland management.
- 3.6.3 Qualifications.
- B Sc. Environmental Science.
  - Great Crested Newt License – 2015-17182-CLS-CLS
  - Bat License – 2015-11490-CLS-CLS
  - Bird Ringing A Licence – A/6298
- 3.6.4 Professional Membership.
- Member of the Chartered Institute of Ecology and Environmental Management.
- 3.7 A detailed surveyor profile is included in Appendix 5.
- 3.8 Chris Toohie M Sc. MCIEEM meets the criteria for a suitably qualified ecologist by:
- Holding a Master’s degree in Community Forestry and Arboriculture;
  - Being employed as a practising ecologist since 1995, with over 20 years’ relevant experience (also within the last five years) and;
  - Being a full member of the Institute of Ecology and Environmental Management (this makes him subject to peer review and bound by a professional code of conduct).

- 3.9 Daniel Lombard meets the criteria for a suitably qualified ecologist by:
- Holding a Bachelor of Science degree (hons) in Environmental Science;
  - Being employed as a practising ecologist since 2007, with over 10 years' relevant experience and;
  - Being a full member of the Institute of Ecology and Environmental Management (this makes him subject to peer review and bound by a professional code of conduct).
- 3.10 Chris Toohie M Sc. MCIEEM has read and reviewed the report and confirms that it:
- Represents sound industry practice
  - Reports and recommends correctly, truthfully, and objectively
  - Is appropriate, given the local site conditions and scope of works proposed
  - Avoids invalid, biased, and exaggerated statements

## 4.0 PHASE 1 HABITAT SURVEY METHODOLOGY

- 4.1 A Phase 1 Habitat Survey was undertaken at the Application Site on 7<sup>th</sup> August 2017 and 13<sup>th</sup> February 2020. During the site visit, the whole of the Application Site and accessible neighbouring land was examined in detail.

Survey	Date	Wind Speed	Wind Direction	Temperature		Rainfall	Cloud Cover
				Start	Finish		
Field	07/08/2017	5mph	SW	19°C	19°C	None	70%
Field	13/02/2020	Still	n/a	7°C	7°C	None	50%

- 4.2 The habitats within the Application Site were mapped (see Appendix 2) according to the techniques described in the publication *Handbook for Phase 1 Habitat Survey* (JNCC 2010).
- 4.3 Target notes (if applicable) provide descriptions of the main habitats found on the site, including information about species composition, habitat structure, evidence of management, habitats too small to map and transitional or mosaic habitats.
- 4.4 Sufficient detail on the composition of the vegetation was obtained from the Phase 1 Habitat Survey, which enabled it to be successfully characterised and assessed.
- 4.5 During the site visit, notes were made of features of potential value to other groups such as birds, mammals, amphibians, reptiles, or invertebrates, paying particular attention to species protected by law:

Species/Group	Indicative habitat	Field signs (in addition to sightings)
Bats	Roosts - Trees, buildings, bridges, caves etc. Foraging areas - e.g. Parkland, waterbodies, wetlands, woodland, hedgerows Commuting routes - Linear features (e.g. hedgerows, water courses, tree lines).	Potential roost sites: Droppings, urine splashes, staining and feeding remains.
Badger	Habitat mosaic in rural and many urban habitats	Excavations and tracks, sett entrances, latrines, hairs, well-worn paths, prints, scratch marks on trees
Otter	Rivers, streams, canals, ponds, lakes, ditches, drains and coastal areas.	Holts (or dens), prints, spraints, slide marks into watercourses and feeding signs.
Water Vole	Rivers, streams, canals, ponds, lakes, ditches, drains and marshes.	Burrow entrances, prints, distinctive latrine areas and feeding signs.
Birds	Habitat mosaic	Nests, droppings below nest sites (especially in buildings of trees); tree holes
Reptiles	Habitat mosaic	Sloughed skins
Great Crested Newt	Ponds within 500m of suitable habitat within the site boundary. Habitat Suitability Index (HSI assessment)	Egg wraps and animals (depending on time of year)

## 5.0 LIMITATION OF FIELD SURVEY

- 5.1 Whilst the majority of the Application Site was examined at the macro scale, many species will have been overlooked at the micro level because it is not the purpose of a phase 1 habitat survey to classify all taxa occurring in the Application Site. In addition, whilst the actual timing of the survey was adequate to classify the habitat types, there is undoubtedly a strong seasonal element to the presence of species within the site and species occurring outside of the survey period will have been missed.
- 5.2 This report will serve to indicate the possible value of the site in nature conservation terms based upon the initial field survey and desk top data gathered. As with any survey of this kind, it cannot be a definitive description of the site and its associated habitats and species.
- 5.3 Access was only granted within the Application Site and land owned by the client; neighbouring land was only studied from vantage points, maps within the public domain and aerial photography, it is possible that habitats important to the ecology of the Application Site may not have been recorded fully.
- 5.4 However, a phase 1 habitat survey of this nature, supported by a thorough desk top survey, is sufficient to make a number of general assumptions about the ecology of the site.

## 6.0 DESK TOP STUDY

### 6.1 General description

6.1.1 The Application Site is 1.3km east of Bishop Burton, within a rural location. The Application Site is immediately surrounded by mature trees and arable land, it is relatively sheltered and in flat and well drained location. The adjacent habitats include a road to the east, farm buildings to the south, residential buildings to the north and agricultural land to the west.

6.1.2 Habitats within 2km are dominated by arable agricultural land and grazed common land interspersed with small paddocks of grazed pasture. Woodland cover within 2km is good and occurs as small shelterbelts, plantations adjacent to farms and small holdings, Bishop Burton College woodlands, parkland trees and as semi natural/ancient woodland on Beverley Westwood. Habitat connectivity is provided by hedgerows and hedgerows with trees which link the site with the wider countryside.

6.1.3 A summary of the surrounding habitat is (radius of < 2km from the site):

- Buildings – farm buildings and residential properties
- Bishop Burton Collage
- Hedgerow
- Mature trees and woodland
- Lambfold Wood
- Beverley Westwood
- Swadgery Mere Wood
- Arable
- Mature private gardens
- Ponds and watercourses
- Grazed pasture

### 6.2 Desktop Study.

6.2.1 Natural England, the North & East Yorkshire Ecological Data Centre (NEYEDC), [www.magic.gov.uk](http://www.magic.gov.uk), social media, local authority planning portal and Wold Ecology employees, field surveyors and network of associate ecologists were consulted in order to obtain any ecological information that they hold of relevance to the Application Site and surrounding area.

6.2.2 The desk top study identifies land parcels of nature conservation value within 2 km of the Application Site. Relevant extracts from associated documentation are highlighted below. The following data resources were searched:

- Sites of Special Scientific Interest (SSSI)
- Special Protection Areas (SPA)
- National Parks
- National Reserves
- Special Areas of Conservation (SAC)
- Ramsar sites
- Areas of Outstanding Natural Beauty (AONB)
- Local Nature Reserves (LNR)
- Local wildlife sites (LWS) or equivalent

- Natural England Habitat Inventories
- Natural Character Area documentation
- European protected species records
- UK Biodiversity Action Plan habitats and species records
- Local Biodiversity Action Plan habitats and species records
- Notable species records

### 6.2.3 International Designated Sites

6.2.3.1 There are no International Designated Sites within 2 km of the Application Site.

### 6.2.4 Nationally Designated Sites

6.2.4.1 The following SSSI's lie within 2 km of the Application Site (see figure 1):

<i>Designation</i>	<i>Name or location of site</i>	<i>Grid Reference</i>
Site of Special Scientific Interest	Burton Bushes	TA 010 393

6.2.4.1.1 Burton Bushes SSSI is described by Natural England as:

- This oak woodland is known to exceed 200 years in age, and evidence suggests that it is of natural origins (Boatman, 1971). It is considered a good example of the woodland characteristic of Holderness Till soils. The undisturbed nature of the soil profile is an important feature of the site.
- The woodland canopy contains about 50% oak (mainly *Quercus robur*), with a range of other tree species including birch *Betula pubescens*, field maple *Acer campestre* and wych elm *Ulmus glabra*. The understorey is well developed and dominated by holly *Ilex aquifolium*.
- As a result of cattle grazing, the woodland floor has in recent years become either grass dominated or largely bare, but there are remnants of its rich herb flora with wood anemone *Anemone nemorosa*, enchanter's nightshade *Circaea lutetiana*, bluebell *Hyacinthoides nonscripta* and wood sorrel *Oxalis acetosella*. The latter is present as an epiphyte on some of the older tree trunks.
- The perimeter of the woodland has a parkland appearance, probably as a result of past grazing pressure.

6.2.4.1.2 The SSSI is located 600m east of the Application Site.

6.2.5 Local Wildlife Sites (LWS).

6.2.5.1 The following local wildlife sites lie within 2 km of the Application Site (see figure 1):

<i>Site Id</i>	<i>Site Name</i>	<i>Grid Reference</i>	<i>LWS Status</i>
TA0035-02	Burton Bushes	TA011394	Deleted LWS
TA0035-26	Beverley Westwood	TA020390	Deleted LWS
TA0035-27	Beverley Limekilns	TA018391	Designated LWS
SE9540-08	Lambfold Wood	SE993408	Historic LWS
TA0035-05	Shorthill Hag	TA012387	Historic LWS
TA0035-08	Swadgery Mere Wood	TA012382	Historic LWS
TA0035-07	Newbald Road	TA001386-TA007386	Designated LWS
TA0035-01	Killingwold Graves Plantation	TA001395	Deleted LWS
SE9535-01	Low Balk Road, Bishop Burton	SE967395-SE983395	Designated LWS
TA0035-29	Burton Bushes Veteran Trees	TA013393	Candidate LWS
TA0035-04	Newbald Road, Beverley Westwood	TA013389-TA015388	Designated LWS

6.2.5.2 Killingwold Graves Plantation is located within the Application Site but is a deleted LWS. The other statutory and non-statutory sites will not be impacted on by the proposed development due to the small-scale nature of the proposed development and the distance between the Application Site and the nearest SSSI/LWS which is greater than 200 metres. The deleted LWS Killingwoldgraves Plantation occurs within the Application Site.

6.2.6 Natural England Habitat Inventories

6.2.6.1 All the Natural England Habitat Inventories were searched, including the woodland inventory and grassland inventory. The following areas of notable habitat from the Habitat Inventories list were found within 2 km of the Application Site.

**Ancient Woodland Inventory**

Version: *Ancient Woodlands*

*July 2019*

<i>Habitat type</i>	<i>Location or comments</i>
Ancient and Semi-Natural Woodland	None within the search area
Planted Ancient Woodland Sites	Burton Bushes

**Priority Habitat Inventory**

Version: *Priority Habitats Inventory*

*August 2017*

<i>Habitat type</i>	<i>Location or comments</i>
Deciduous woodland	Numerous parcels throughout search area
Traditional orchard	Near B1230 and A1035 crossroads

6.2.6.2 The notable habitats will not be impacted on by the proposed development due to the small-scale nature of the proposed development on previously developed land.

Figure 1.

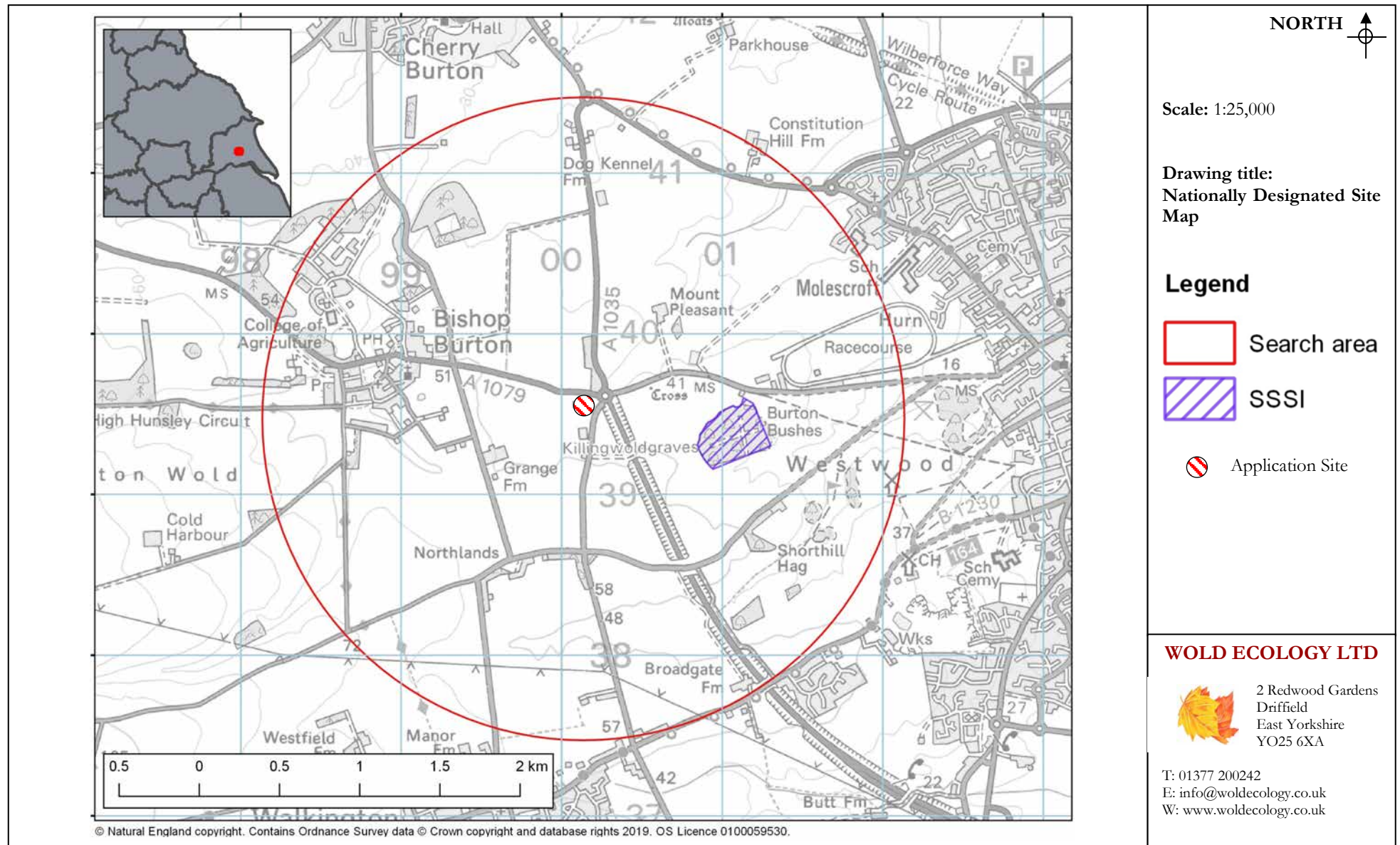




Figure 3.

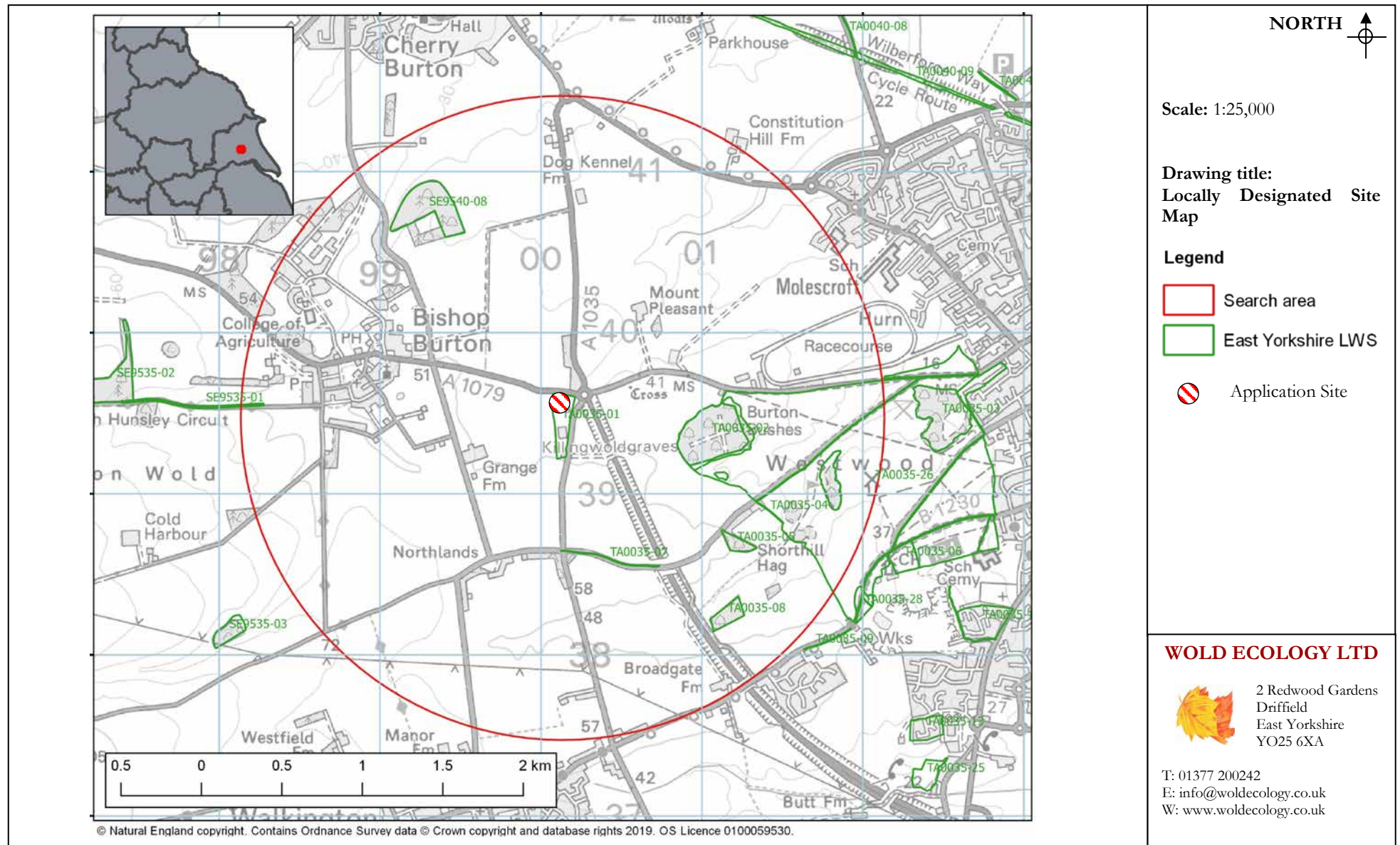
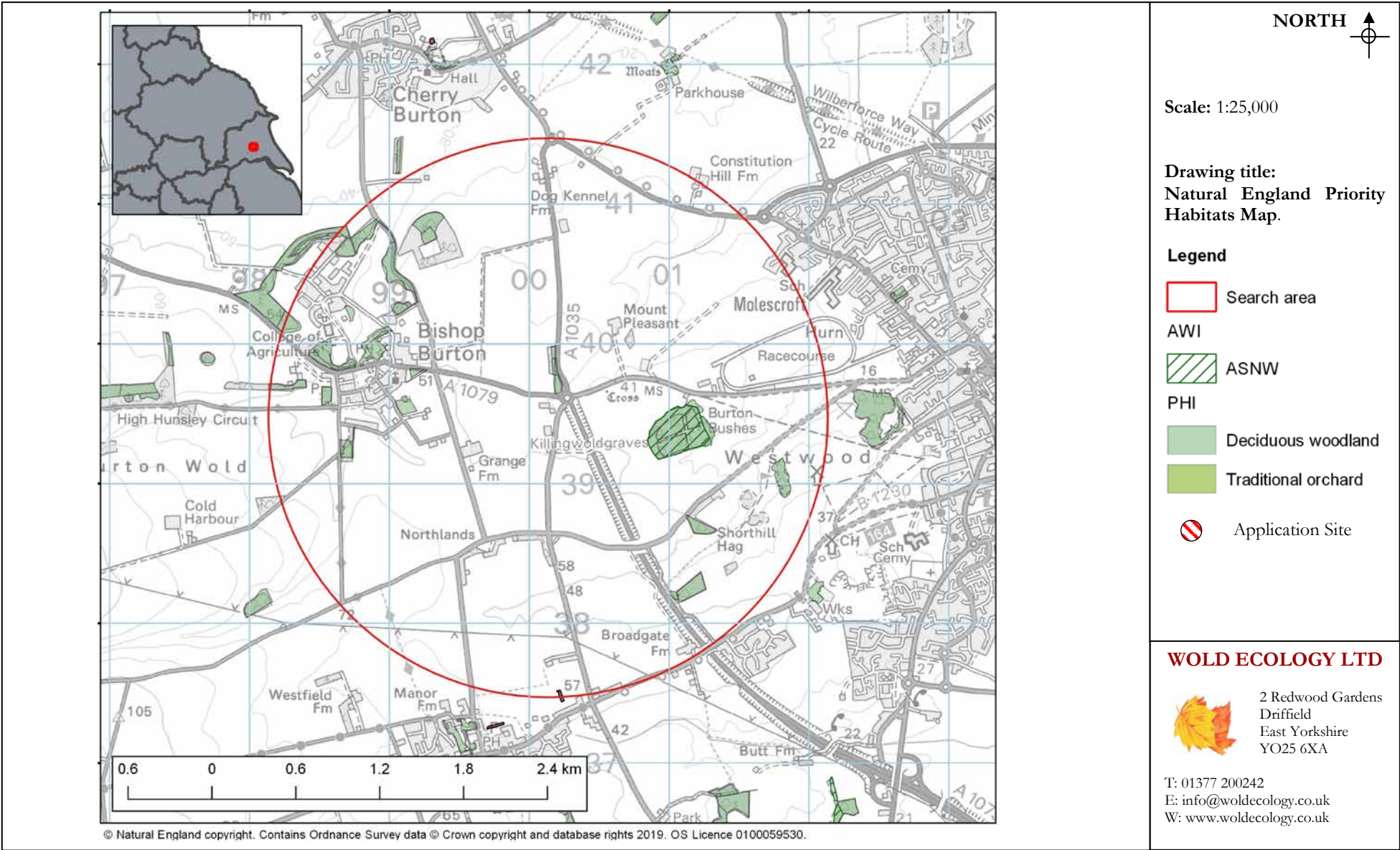


Figure 4.



## 6.3 Natural Character Areas

- 6.3.1 National Character Areas (NCAs) divide England into 159 distinct natural areas. Each is defined by a unique combination of landscape, biodiversity, geodiversity, and cultural and economic activity. Their boundaries follow natural lines in the landscape rather than administrative boundaries, making them a good decision-making framework for the natural environment. As part of its responsibilities in delivering the Natural Environment White Paper, Biodiversity 2020 and the European Landscape Convention, Natural England is revising its National Character Area profiles to make environmental evidence and information easily available to a wider audience.
- 6.3.2 NCA profiles are guidance documents which will help to achieve a more sustainable future for individuals and communities. The profiles include a description of the key ecosystem services provided in each character area and how these benefit people, wildlife, and the economy. They identify potential opportunities for positive environmental change and provide the best available information and evidence as a context for local decision making and action.
- 6.3.3 The Application Site is located in the NCA 27 - Yorkshire Wolds
- 6.3.3.1 The Yorkshire Wolds National Character Area (NCA) form an arc of high, gently rolling ground extending from the Humber Estuary west of Hull, to the North Seacoast at Flamborough Head, north of Bridlington. They comprise a prominent chalk escarpment and foothills rising from the Vale of York to the west and the Vale of Pickering to the north and falling to the plain of Holderness to the east. A very low proportion of the area is urban and woodland, and the vast majority of the land is agricultural. Woodland planting is restricted to small, scattered woodland blocks on higher land and steeper slopes
- 6.3.3.2 This gently rolling landscape instils a sense of openness, escapism and tranquillity provided by the expansive views, sparse population and agriculture. Protection of the rural character and long, open views is important for conservation of this distinctive landscape. Respect for local building vernacular is essential; they are mainly brick, limestone and chalk.
- 6.3.3.3 Key characteristics:
- A large-scale, expansive, rolling landscape with big skies and long views from the escarpment and plateau, contrasting with the more enclosed, dry, sheltered valleys deeply incised into the Chalk, but with small areas of Lower Cretaceous, Jurassic and Triassic rocks along the western and northern fringes.
  - Thin, chalky soils support mainly arable farming, with a pattern of large, regular fields crossed by long, straight drove roads with wide verges dating from Parliamentary enclosures of the 18th century. The arable farmland is a priority area for important farmland bird species, while many of the grass verges have calcareous grassland interest providing valuable wildlife corridors.
  - The high chalk cliffs of Flamborough Head, where the land meets the North Sea, are designated as Heritage Coast, for the dramatic landscape and recreation value. It is also a European Marine Site, a Special Protection Area (SPA) for breeding coastal birds, and a Special Area of Conservation(SAC)

for chalk reef and cave interest, with Sites of Special Scientific Interest (SSSIs) of geological and geomorphological importance.

- Remnant tracts of sheep-grazed, unimproved or semi-improved calcareous grassland in steep-sided, dry valleys form distinctive landscapes, with hillsides of floristically rich grasslands which provide specialist habitats for butterflies and moths.
- Woodland cover is generally limited, and often linked to steep slopes within enclosed valleys, although there are a number of estates with more significant woodland areas, including Dalton, Garrowby, Sledmere, Londesborough and Warter Priory. Shelterbelts associated with farmsteads are features on the skyline.
- There are many large estates and designed parklands with large country houses, estate villages, estate woodlands and medieval deer parks.
- Other features include wet flushes, wet meadows and spring-fed fens at the foot of the escarpments, and remnant wetlands and wet meadows adjacent to the chalk streams.
- It is generally a sparsely settled landscape with large, scattered farmsteads on high ground, small villages in valleys and small market towns on fringes. Building materials are predominantly brick with pan tiles, but sometimes limestone and chalk.
- Throughout the NCA, there is extensive evidence of a long history of human occupation and landscape change represented by numerous Neolithic, bronze-age and iron-age monuments and medieval settlements.
- A number of chalk, sand and gravel quarries and gravel pits are found throughout the NCA, which are of biodiversity value and provide access for study and education.

#### 6.3.3.4 Relevant Statements of Environmental Opportunity

- **SEO 1:** Enhance, extend and manage the unique assemblage of chalk-based habitats (lowland chalk grasslands, streams), broadleaved woodland and maritime cliffs, while protecting the provision and quality of water.



## 6.4 European Protected Species records

### 6.4.1 Badger

- Badger *Meles meles* is recorded within the 2km radius surrounding the Application Site (source – NEYEDC 2020 and Wold Ecology network pers comm).

### 6.4.2 Bats

- Currently, there is no pre-existing information on bats at the site.
- There are records of brown long-eared bat *Plecotus auritus*, noctule *Nyctalus noctula*, Daubenton’s bat *Myotis daubentonii*, whiskered bat *Myotis mystacinus*, soprano pipistrelle *Pipistrellus pygmaeus* and common pipistrelle *Pipistrellus pipistrellus* within the surrounding 5km radius of the Application Site. (source – NEYEDC 2019 and Wold Ecology network pers comm). Wold Ecology bat records date from 2006 and include over 1000 bat activity surveys.
- The following Natural England development licenses are located within 2km of the Application Site (source - [magic.gov.uk](http://magic.gov.uk)):

Specie	Distance from site	Destruction of a breeding site	Destruction of a resting site
Common pipistrelle Brown long-eared Natterer’s	1.3km: NW	N	Y

### 6.4.3 Great crested newts

- Great crested newt *Triturus cristatus* is recorded within the surrounding 5km radius with records at Skidby and Walkington (both are over 2km from the Application Site). (source – NEYEDC 2019 and Wold Ecology network pers comm).
- There are no great crested newt Natural England development licenses within 2km of the Application Site (source – [www.magic.gov.uk](http://www.magic.gov.uk)).

### 6.4.4 Water vole

- Water vole *Arvicola amphibious* has not been recorded within 1km of the Application Site (source – NEYEDC 2019 and Wold Ecology network pers comm).

### 6.4.5 Otter

- Otter *Lutra lutra* has not been recorded within 2km of the Application Site, with wider records along the River Hull and its catchment area (source – NEYEDC and Wold Ecology network pers comm).

### 6.4.6 Reptiles

- Grass snake *Natrix natrix* are recorded the surrounding 2km radius (source – NEYEDC 2019 and Wold Ecology network pers comm).

6.4.7 A list of all European Protected, notable and UK BAP species within 2km of the Application Site can be found in Appendix 7.

## 7.0 PHASE 1 FIELD SURVEY RESULTS

7.1 The following habitat types were recorded within the Application Site:

Phase 1 Habitat Classification	JNCC Reference Code
Scattered trees (broad-leaved)	A3.1
Semi improved neutral grassland	B2.2
Tall ruderal vegetation	C3.1
Fence	J2.4
Wall	J2.5
Bare ground	J4
Amenity grassland	J1.2
Introduced shrub	J1.4
Intact species poor hedge	J2.1.2
Buildings	J3.6

7.2 Scattered Trees (Broad-leaved)

7.2.1 Scattered trees associated with the Application Site occur around peripheral areas which have been subjected to less disturbance, development and agriculture. These trees comprise a mixture of planted and naturally regenerated specimens; none of these trees are over 80 years old and consequently, are in good health with no evidence of standing deadwood. Species composition is dominated by whitebeam *Sorbus subg. Aria*, elder *Sambucus nigra*, goat willow *Salix caprea* and elm *Ulmus minor* 'Atinia'.

7.3 Semi-improved neutral grassland

7.3.1 This habitat type occupies central areas of the Application Site, particularly in the western and northern areas. The western parcel of grassland is characterised by rabbit grazed grassland with a shorter lush sward. Rabbit warrens occur in adjacent undulations formed from spoil and soil from site clearance.

7.3.2 The northern parcel of grassland away from the warrens has started to form a dense structure, however due to its relatively young age, lack of soil nitrates and shallow soils, it has yet to form a denser tussocky structure. This habitat appears to have evolved from a pioneer community following site clearance.

7.3.3 Species communities are dominated by common ragwort *Jacobaea vulgaris*, red fescue *Festuca rubra*, creeping buttercup *Ranunculus repens*, American willowherb *Epilobium ciliatum*, common mouse-ear *Cerastium fontanum*, rock-rose *Helianthemum nummularium*, white clover *Trifolium repens*, self-heal *Prunella vulgaris*, daisy *Bellis perennis*, ribwort plantain *Plantago lanceolata*, field-forget-me-not *Myosotis arvensis*, vipers bugloss *Echium vulgare*, black-medic *Medicago lupulina*, small flowered cranesbill *Geranium pusillum*, woody nightshade *Solanum dulcamara*, creeping thistle *Cirsium arvense*, common sorrel *Rumex acetosa*, cats-ear *Hypochaeris radicata*, broad-leaved dock *Rumex obtusifolius* and scented mayweed *Matricaria chamomilla*.

- 7.4 Tall ruderal vegetation
- 7.4.1 The eastern half of the site is dominated by tall ruderal vegetation stands, this habitat also occurs around the sites boundaries and appears to have arisen from pioneer communities following site clearance. This habitat tends to occur in slightly deeper soils on site and areas with high soil nitrates; it is of value to common and wide ranging nectaring insect species and some value to nesting birds.
- 7.4.2 Species are dominated by great willowherb *Epilobium birsutum*, stinging nettle *Urtica dioica*, spear thistle *Cirsium vulgare*, great mullein *Verbascum thapsus*, creeping thistle, common ragwort, rosebay willowherb *Chamerion angustifolium*, colts-foot *Tussilago farfara*, perforate St John's wort *Hypericum perforatum*, borage *Borago officinalis*, opium poppy *Papaver somniferum*, prickly sow thistle *Sonchus asper* and bramble *Rubus fruticosus*. Additionally, self-seeded young elder *Sambucus nigra*, ash *Fraxinus excelsior* and elm *Ulmus spp.* also sporadically occur in this habitat, especially in the north west corner of the site.
- 7.5 Fence
- 7.5.1 A section of metal palisade security and timber garden fencing occurs in association with the sites eastern entrance and garden boundary of the building. This fencing is of limited ecological value and does not prohibit dispersal into and out of the site.
- 7.6 Wall
- 7.6.1 The garden boundary of the dwelling is characterised by a 2-metre-tall breezeblock wall. This is of no ecological value and may reduce so dispersal across the site.
- 7.7 Bare ground
- 7.7.1 Bare ground habitats occur within the north-eastern side of the Application Site and consist of concrete remnants of a former building base and parking areas. This habitat also has an abundance of rubble associated with it and stacked metal materials.
- 7.8 Amenity Grassland
- 7.8.1 This habitat type is located adjacent to the residential dwelling and comprises short and lush grass that is cut regularly throughout the growing season. It also appears to be subjected to occasional weed removal and applications of fertilisers and herbicides.
- 7.8.2 Species composition is relatively poor and is dominated by perennial ryegrass *Lolium perenne*, white clover *Trifolium repens*, annual meadow grass, creeping buttercup, dandelion *Taraxacum officinale* and daisy *Bellis perennis*. Species diversity tends to increase in marginal areas. All species are common and widespread in urban amenity grasslands with a reduced ecological value due to management and soil fertility.
- 7.9 Introduced Shrub
- 7.9.1 A small number of shrub borders of limited ecological interest are situated within the boundaries of the Application Site, primarily adjacent to the drive to the

residential dwelling. These shrubberies have been planted for their amenity value and are regularly maintained for their amenity value and consist of low maintenance hardy species including privet *Ligustrum ovalifolium*, laurel *Laurus sp.*, weeping beech *Fagus sp.*, and rose *Rosa spp.*

7.10 In-tact species poor hedge

Hedge 1			
Location	This hedge forms the eastern boundary of the Application Site adjacent to the residential dwellings front garden.		
Height	4m	Width	2m
Cross Section	Boxed		
Management	Regularly cut, no evidence of coppicing or laying. There are no gaps in the hedgerow greater than 5m in length. There was no evidence to suggest that nor are the hedgerows are old landscape features.		
Species composition	The hedge comprises privet with no other species recorded.		
Species rich (four woody species per 30m length)	The hedgerow is not species rich and there are no ancient woodland or hedgerow communities associated with these hedges.		
Ground flora	Amenity grassland in association with the front garden of the residential dwelling.		

7.11 Buildings

7.11.1 The following buildings are present within the Application Site:

- a. **Residential dwelling** – the two-storey building is currently occupied and comprises brick walls and a pitched roof covered with pan tiles.
- b. **Kennels** – the single storey kennels comprises breeze block walls and a mono pitched roof covered with corrugated steel sheets.

7.12 The following species were recorded during the field survey:

- Blackbird *Turdus merula*
- Robin *Erithacus rubecula*
- Wren *Troglodytes troglodytes*
- Great tit *Parus major*
- Blue tit *Cyanistes caeruleus*
- Starling *Sturnus vulgaris*
- Chaffinch *Fringilla coelebs*
- Goldfinch *Carduelis carduelis*
- Greenfinch *Chloris chloris*
- Yellowhammer *Emberiza citrinella*
- Swallow *Hirundo rustica*
- Woodpigeon *Columba palumbus*
- Swift *Apus apus*
- Pied wagtail *Motacilla alba*
- Dunnock *Prunella modularis*



- Magpie *Pica pica*
- Buzzard *Buteo buteo*
- Rabbit *Oryctolagus cuniculus*
- Field vole *Microtus agrestis*
- Brown rat *Rattus norvegicus*
- Roe deer *Capreolus capreolus*
- Mole *Talpa europaea*
- Banded snail *Cepaea nemoralis*
- Garden snail *Cornu aspersum*
- Black slug *Arion ater*
- 7-Spot ladybird *Coccinella septempunctata*
- Peacock *Aglais io*
- Small tortoiseshell *Aglais urticae*
- Red admiral *Vanessa atalanta*
- Large white *Pieris brassicae*
- Cinnabar *Tyria jacobaeae*

## 8.0 SPECIES APPRAISAL

8.1 The habitats within and surrounding the Application Site is potentially important, and the development area may impact upon mobile species. Consequently, the extended phase 1 survey and preliminary ecological appraisal targeted the following species relevant to the Application Site and proposed development:

- Bats
- Great crested newt
- Badger
- Reptiles
- Birds
- Hedgehog

### 8.2 Bats

#### 8.2.1 Legislation

8.2.1.1 All bats and their roosts are fully protected under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) and are further protected under the Conservation of Habitats and Species Regulations 2017.

8.2.1.2 The Conservation of Habitats and Species Regulations 2017, provision 41 states an offence is committed if a person:

- (a) Deliberately captures, injures, or kills any wild animal of a European protected species (i.e. bats),
- (b) Deliberately disturbs wild animals of any such species,
- (c) Deliberately takes or destroys the eggs of such an animal, or
- (d) Damages or destroys a breeding site or resting place of such an animal.

8.2.1.3 Section 9 of the Wildlife and Countryside Act (1981) states:

- It is an offence for anyone without a licence to kill, injure, disturb, catch, handle, possess or exchange a bat intentionally. It is also illegal for anyone without a licence to intentionally damage or obstruct access to any place that a bat uses for shelter or protection.

8.2.1.4 Bat roosts are protected throughout the year, whether or not bats are occupying a roost site.

#### 8.2.2 Field Survey Methodology

8.2.2.1 The daytime assessment identified whether the trees and buildings had any signs of occupancy and/or bat usage. This took the form of a methodical external search for actual roosting bats and their sign. Specifically, the visual survey involved the following:

##### 8.2.2.2 Trees

- a. Assessment and evaluation of the trees and their potential to support bats;
- b. Tree hazard assessment including tree characteristics, health, site conditions, and defects in relation to a trees potential to support bats. Features that might indicate the presence of bats are as follows:
  - Trees that contained a cavity or space of at least 10mm
  - Woodpecker holes, rot holes, cavities, loose bark and ivy, examples of

- known roost sites
    - Tree diameter at chest height of > 20cm (less indicates that bats are less likely to be present)
    - Trees < 80 years of age are less likely to be attractive to bats
    - Droppings, scratch marks and staining on beams, cavities and under bark.
  - b. Assessment of crevices and cracks to assess their importance for roosting bats.
  - c. The duration of the daytime, visual inspection was 45 minutes
- 8.2.2.3 Buildings
- Assessment for droppings on walls and windowsills
  - Scratch marks, staining and potential entrance and exit holes
  - The presence of dense spider webs at a potential roost can often indicate absence of bats
  - Assessment of crevices and cracks in the buildings to assess their importance for roosting bats
- 8.2.3 Field Survey Results
- 8.2.3.1 Following the visual inspection, an assessment was made of the buildings and trees potential to support roosting bats.
- 8.2.3.2 **Residential dwelling** - the following roosting opportunities were present within the fabric of the building:
- There are no gaps beneath the ridge tiles, and none are missing.
  - A small number of loose fitting pan tiles with gaps beneath.
  - Gaps below lead flashing and behind lead dormer cheeks.
  - Gaps above the eaves.
  - There are no gaps in the external mortar suitable for roosting bats.
  - The doors and window frames were tight fitting.
  - There was no open doors/window access into the building.
  - No evidence of bats was observed.
  - The building has been assessed as having a **LOW SUITABILITY** to support bats.
- 8.2.3.3 **Kennels** - no roosting opportunities were present within the fabric of the kennels due to the following:
- The timber frame and roof sheets were tightfitting.
  - The eaves are tight fitting and there are no gaps in the external mortar suitable for roosting bats.
  - The timber doors and timber window frames were tight fitting.
  - There was no open doors/window access into the building.
  - No evidence of bats was observed.
  - The building has been assessed as having a **NEGLIGIBLE SUITABILITY** to support bats.
- 8.2.3.4 No potential roost sites exist within the studied trees on site, predominantly due to a lack of suitable roosting features within the trees, immature age and form.

## 8.2.4 Site Status Assessment

8.2.4.1 From the current results, it is not possible to fully determine whether bats are using the residential dwelling as a roost. Whilst there were no signs of bat activity i.e. droppings, moth wing fragments, staining's, grease marks etc., age and composition of the building suggests that there is potential for bats to be present. These features include:

- Gaps beneath tiles.
- Gaps beneath lead flashing and behind lead cheeks
- Gaps above the eaves

8.2.4.2 **Additional bat activity survey work between May and August will be required to determine the impact on bat populations. This will result in one of the following ways forward with the proposed development. The bat activity surveys should target the residential dwelling.**

8.2.4.3 If a bat roost is identified and the proposed development activity will result in roost destruction or disturbance to the roost, it will be necessary to obtain a Natural England development licence prior to site works. The licence application process currently requires the input of a qualified bat ecologist/consultant and includes:

- Up to three bat activity surveys between May and September to support the license application. The submission of a licence to capture, disturb and/or destroy the roosts or resting places of bats.
- A walk over survey/check must be undertaken within 3 months prior to the Natural England application submission to ensure that conditions have not changed since the most recent bat survey was undertaken. Details of any changes to conditions and habitats and/or structures on site will be documented.
- The production of a detailed Method Statement to support the application. **This will** include a proposed work programme. One copy will be sent to a Natural England wildlife adviser for assessment. It should be noted that the Method Statement will be appended to any licence granted. The Method Statement will include the necessary mitigation required of the development. This will include:
  - A work timetable which must be followed. This will include completing works when bats are not present in their roost (winter) or when bats are less vulnerable to disturbance (spring/autumn).
  - A suitable mitigation plan allowing bats to be able to roost in a like for like replacement for any closed roost (this can be allowing bats back into the roof void).
  - Additional bat boxes placed as habitat improvement.
  - Bats must not be left without a roost during the active season (April to September inclusive).
- The production of a Reasoned Statement of Application to support the application. This will provide a rational and reasoned justification as to why the proposed activity meets the requirements of the Conservation of Habitats and Species Regulations 2017, Regulations 53(2) (e-g) and 53(9) (a-b).
- The usual timescale expected for the process of an application is approximately 30 working days from the date of acknowledgement of receipt. Natural England wildlife advisers are given 20 working days to fulfil requests for information. This timescale will also apply to requests for licence amendments.

- Additional on-site surveys, watching brief and implementation of license by a bat ecologist.
  - For additional information on licences please refer to Natural England Guidance Leaflet WML-G12 (see [www.naturalengland.org](http://www.naturalengland.org)).
- 8.2.4.4 If no bat roosts are detected during the emergence/return surveys, the work can commence with adherence to a method statement which will identify safe working practices and precautions necessary to avoid injury or death to any bats that may be present in the residential dwelling.
- 8.2.4.5 The bat activity survey results will be valid for 12 months. Further bat activity surveys will be required within 1 year of any site works that impact upon bat roosting features. This will also ensure local planning good practise guidelines are followed.
- 8.2.3.5 The wider area supports several woodland habitats, mature gardens and grasslands which offer alternate foraging and commuting habitat for bats. The Application Site habitats are open, not extensive and are similar to surrounding mature private gardens and consequently, the Application Site is not considered integral to the favourable population status of local bat populations.
- 8.2.5 Biodiversity Gains and Recommendations
- 8.2.5.1 Specially designed bat boxes can be located on site. Schwegler Bat Boxes are recommended and well tested boxes. The following bat boxes provide additional roost habitats and are available from Wold Ecology:
- Bat Tube (**1FR** and **2FR**) system. The tube is designed to meet behavioural requirements of the types of bats that roost in buildings i.e. pipistrelle spp. This design can be installed flush to external walls and beneath a rendered surface.
- 8.2.5.2 The majority of these boxes are self-cleaning as they are designed so that the droppings fall out of the entrance. This reduces the possibility of smell during the summer months. For more information on designs and installation of bat boxes see: [www.schwegler-natur.de](http://www.schwegler-natur.de) and [www.bct.org.uk](http://www.bct.org.uk).
- 8.2.5.3 Wold Ecology recommends that at least 2 bat boxes are sited on new buildings on site. Bat boxes should be erected on south, east or west elevations; 3-5 metres above ground level or close to roof lines.
- 8.2.5.4 Lighting has a detrimental effect on bat activity; many bats will actually avoid areas that are well lit. Lighting can cause habitat fragmentation by preventing bats from commuting between roosts and foraging grounds (A.J Mitchell-Jones 2004).
- 8.2.5.6 The impact on bats can be minimised by the use of low pressure sodium lamps or high-pressure sodium instead of mercury or metal halide lamps where glass glazing is preferred due to its UV filtration characteristics.
- 8.2.5.7 Luminaire and light spill accessories - Lighting should be directed to where it is needed, and light spillage avoided. This can be achieved by the design of the luminaire and by using accessories such as hoods, cowls, louvres and shields to direct the light to the intended area only.

- 8.2.5.8 If applicable, the height of lighting columns in general should be as short as is possible as light at a low level reduces the ecological impact. However, there are cases where a taller column will enable light to be directed downwards at a more acute angle and thereby reduce horizontal spill. For pedestrian lighting this can take the form of low level lighting that is as directional as possible and below 3 lux at ground level. Aim for lighting column of 5m or less, hooded and cowled to prevent light spill, for main lighting columns
- 8.2.5.9 Security lighting power, it is rarely necessary to use a lamp of greater than 2000 lumens (150 W) in security lights. The use of a higher power is not as effective for the intended function and will be more disturbing for bats. Many security lights are fitted with movement sensors which, if well installed and aimed, will reduce the amount of time a light is on each night. This is more easily achieved in a system where the light unit and the movement sensor are able to be separately aimed. If the light is fitted with a timer this should be adjusted to the minimum to reduce the amount of 'lit time'. The light should be aimed to illuminate only the immediate area required by using as sharp a downward angle as possible. This lit area must avoid being directed at, or close to, any bats' roost access points or flight paths from the roost. A shield or hood can be used to control or restrict the area to be lit. Avoid illuminating at a wider angle as this will be more disturbing to foraging and commuting bats as well as people and other wildlife.
- 8.2.5.10 At this site, lights will **not** be mounted where they will shine directly on to bat boxes or the surrounding woodland/hedgerow habitat used by foraging and commuting bats.

### **8.3 Great crested newt.**

#### 8.3.1 Legislation

8.3.1.1 The great crested newt is protected under European and British legislation. Under European legislation it is protected under EC Directive (92/43/EEC) 'The Conservation of Natural Habitats and of Wild Fauna and Flora', being listed under Annexes IIa and IVa. This is implemented in Britain under the Wildlife and Countryside Act 1981 (as amended by the Countryside and Rights of Way Act 2000) and is further protected under the Conservation of Habitats and Species Regulations 2017. This prohibits the intentional killing of newts, the deliberate taking or destruction of eggs, damage or destruction of a breeding site or resting place, intentional/reckless damage to or obstruction of a place used for shelter or protection, possession of a great crested newt and any form of trade of great crested newts.

8.3.1.2 Under British legislation, the great crested newt is given full protection under section 9 of the Wildlife and Countryside Act 1981 (as amended). This Act transposes into UK law the Convention on the Conservation of European Wildlife and Natural Habitats (commonly referred to as the 'Bern Convention'). This prohibits the intentional killing, injuring or taking, possession or disturbance of great crested newts whilst occupying a place used for shelter or protection and the destruction of these places. Protection is given to all stages of life (e.g. adults, sub-adults, larvae, and ovae).

8.3.1.3 In combination the above legislation prohibits the following:

- Intentionally kill, injure or take a great crested newt;

- Possess or control any live or dead specimen or anything derived from a great crested newt;
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt;
- Intentionally or recklessly disturb a great crested newt while it is occupying a structure or place which it uses for that purpose;
- Deliberately capture or kill a great crested newt;
- Deliberately disturb a great crested newt;
- Deliberately take or destroy eggs of a great crested newt;
- Damage or destroy a breeding site or resting place of a great crested newt.

8.3.1.4 The great crested newt is therefore described as ‘fully protected’.

### 8.3.2 Field Survey Methodology

8.3.2.1 A habitat assessment was completed on the proposed development area and surrounding land (500 metres radius) accessible at the time of the surveys. The assessment combined Great Crested Newt Mitigation Guidelines (English Nature 2001) and Evaluating the Suitability of Habitat for the Great Crested Newt (R. S. Oldham, J. Keeble, M. J. S. Swan and M. Jeffcote, undated) methodology.

8.3.2.2 The entire Application Site was assessed for its potential to support great crested newts, whilst conducting a walkover survey. In addition, aerial photographs, maps and physical searches of the surrounding landscape gave an impression of how the Application Site is connected to ponds within the locality and potentially great crested newt populations.

### 8.3.3 Field Survey Results

8.3.3.1 No records of great crested newt occur within 1km of the Application Site. The closest known populations are in excess of 1km and are fragmented by urban habitats and road networks.

8.3.3.2 No ponds or permanent water bodies suitable for breeding great crested newts were observed within 500m of the Application Site during the walkover survey. A running ditch is located 75m north of the Application Site, but this water course is considered unsuitable for amphibians.

8.3.3.3 No known great crested newt populations were recorded within 500m of the Application Site. The surrounding arable landscape and urban fringe significantly hampers great crested newt dispersal into the area, without the aid of humans. Great crested newts tend not to occur within areas of arable land unless it is directly adjoined to a breeding pond, unlike in the Application Site. Arable land is open, well drained with limited refugia leading to a significant risk of predation. The use of pesticides, lack of vegetation diversity and lack of refuge leads to poor invertebrate habitat and therefore poor foraging habitat.

8.3.3.4 Whilst it is not always possible to demonstrate site absence from a single scoping survey, with the evidence collected from a habitat survey, the likelihood of the presence of great crested newts in the Application Site is decreased. Key attributes to the reduced probability of great crested newts being present are:

- There is no current knowledge of great crested newts within the Application Site.

- No suitable ponds exist within the Application Site or within 500 metres of the Application Site.
- Arable land, sub-urban housing, surrounding road networks, walls and curbs limit great crested newt dispersal to and from the site in the wider area.
- No records of great crested newt exist within 500m of the Application Site

8.3.3.5 **Wold Ecology does not recommend any further surveys for great crested newts.**

## 8.4 **Birds**

8.4.1.1 Birds are afforded various levels of protection and levels of conservation status on a species by species basis. The most significant general legislation for British birds lies within Part 1 of the Wildlife and Countryside Act 1981 (as amended). Under this legislation, it is an offence to, kill, injure or take any wild bird, take, damage or destroy the nest of any wild bird while that nest is in use or being built, take or destroy an egg of any wild bird.

8.4.1.2 Schedule 1 Birds

8.4.1.2.1 Schedule 1 birds are rare or scarce species afforded the same protection as above (8.4.1.1), but also have additional protection under Part 1 of the Wildlife and Countryside Act 1981 (as amended). This further protection protects these species from being intentionally or recklessly disturbed whilst nesting, either at or close to the nest site.

8.4.1.3 Planning consent for a development does not provide a defence against prosecution under this act.

8.4.2 Field Survey Methodology

8.4.2.1 All bird species recorded by either sight, song or call were noted, in addition particular attention was given to key species of conservation concern and which habitat within the Application Site they were recorded using. All active (and disused) nests, territorial, breeding, and foraging birds were recorded in further detail to analyse how breeding birds use the Application Site. In winter foraging birds, roosting birds and large aggregations of birds using a specific habitat are noted. In addition, the habitat is assessed for its value to specific species, so that the likelihood of breeding can be analysed.

8.4.2.2 The survey followed guidance and methods recommended within *Bird Monitoring Methods, a manual of techniques for key UK species* Gilbert et.al RSPB 1998, *Common Standards Monitoring Guidance for Birds* JNCC 2004 and *Survey Techniques Leaflet 8*.

8.4.2.3 Wold Ecology assessed the site for schedule 1 listed species recorded having bred or attempted to breed in Yorkshire (Wold Ecology, NEYEDC), which have the potential to breed within the Application Site and/or surrounding adjacent local area or breed elsewhere whilst using the Application Site to forage or roost.



### 8.4.3 Field Survey Results

#### 8.4.3.1 Schedule 1 Listed Birds

##### 8.4.3.1.2 Summary of the Application Site's suitability to support schedule 1 birds:

Species recorded within 2km	Suitability of Application Site
Barn Owl <i>Tyto alba</i>	No suitable nesting cavities occur within the trees and there was no access into the buildings. The site contains small amounts of suitable foraging habitat.

#### 8.4.3.2 None-schedule 1 birds - breeding birds

8.4.3.2.1 Impacts related to breeding birds are essentially related to the temporary loss of habitat which is utilised by breeding species. Related to this is the risk that birds could be nesting within impacted habitats at the time that construction work is programmed to start. Of relevance to this project are small passerine species, particularly those associated with the trees, scrub and tall vegetation.

#### 8.4.3.3 None-schedule 1 birds - wintering birds

8.4.3.3.1 The Application Site is not considered to be valuable to wintering birds like wildfowl and waders. The Application Site is too enclosed, with high hedgerows and is bounded by housing and roads causing regular disturbance, reducing the value of the habitat for these species' groups, nor is it in close proximity to suitable aquatic habitats. The only impact typically of any relevance to wintering birds are those associated with the temporary loss of food sources. This is principally associated with the loss of sections of tall vegetation and scrub which provide a potential source of food to a range of wintering species. However, these habitats are abundant within the wider area and are not thought to be of significant importance to birds.

### 8.4.4 **Wold Ecology does not recommend any further surveys for birds.**

#### 8.4.5 Biodiversity Gains and Recommendations

8.4.5.1 It is concluded that the Application Site is a suitable habitat for agricultural bird species with various designations. There is nesting potential for a range of birds such as thrushes, finches, wood pigeon *Columba palumbus*, magpie *Pica pica*, dunnock *Prunella modularis* and wren *Troglodytes troglodytes*. Several simple management prescriptions can improve the site for breeding bird species.

8.4.5.2 Any buildings, trees, shrubs, scrub and tall vegetation to be removed should be cleared outside of the bird nesting season (i.e. clearance should be undertaken between mid-September and early February inclusive) or be carefully checked\* by an ecologist to confirm no active nests are present - prior to removal during the summer period. If nesting birds are found during the watching brief, works will need to stop until the young have fledged. Since a number of nests are active, work will need to wait until fledging has occurred, then trees should be removed immediately to avoid other nests being created.

\* Thick and overgrown hedgerows are often difficult to inspect fully and removal of a hedge during the spring/summer period is not recommended.

- 8.4.5.3 In order to increase nesting opportunities for birds, it is recommended that Schwegler bird boxes are erected throughout the site. Local Authority guidance recommends that 25% of houses within a development should contain a bird box. A summary of recommended bird boxes is listed below:

Name	Description	Quantity
Schwegler Nest Box 1B	Entrance hole 26 mm.	2
Starling box 3S	Oval entrance hole.	2
Schwegler swift box #25	Brick building box	2

- 8.4.5.4 Boxes should be placed so that the entrance does not face the prevailing wind, rain and strong sunlight. The sector from north to south east should be used, with south facing boxes positioned in more shaded areas.
- 8.4.5.5 Many species will use boxes at a wide variety of heights however to give the box protection in areas with a lot of human or mammalian predator activity they should be placed approximately 3-4 metres above ground level. A clear flight path should be available to and from the nest box.
- 8.4.5.6 Boxes should be placed at a density of approximately 10 per hectare within woodland like that on the site. This will help ensure that competition is not too great for more timid species such as marsh tits and coal tits. Metal plates should be fitted to the front of the boxes to stop grey squirrels and brown rats enlarging the entrance holes and predated the nestlings and eggs.

## 8.5 Badgers

### 8.5.1 Legislation

- 8.5.1.1 Badgers and their setts are protected under the Protection of Badgers Act 1992, which makes it illegal to wilfully kill, injure or take badgers or to interfere with a badger sett, obstructing access to or any entrance of a sett, causing a dog to enter a sett, disturbing a badger when it is occupying a sett, to dig for a badger, to cruelly ill-treat a badger or to possess or control a live badger. Interference with a badger sett is an offence under Section 3 of the Act. This includes recklessly damaging or obstructing a sett whilst clearing land for development.

- 8.5.1.2 Due to the sensitive nature of publishing badger information in the public domain, details of the badger survey within this report is restricted.

### 8.5.2 Field Survey Methodology

- 8.5.2.1 All features of potential value to badgers are surveyed; including areas of woodland (including plantation), small copses, hedgerows, embankments, and rock outcrops. Well-worn animal paths and footpaths were inspected for badger footprints and links to setts.

- 8.5.2.2 The surveyor observations included any areas where there were noticeable changes in the topography providing sloping ground into which the badgers could excavate setts. The following field signs will indicate the presence of badgers:

- Badger setts and associated soil excavation
- Badger latrines, dung pits and foraging activity

- Badger prints, hairs and paths
- Evidence of badger

### 8.5.3 Field Survey Results.

8.5.3.1 No main setts, annexe setts, subsidiary setts or outlier setts were located within 50 metres of the Application Site boundaries or within the Application Site. Badgers have a preference for excavating setts on well drained calcareous grits and upper chalks rather than middle chalks and clays, although exceptions to this rule occur where no similar geology is present. Badgers often show a preference to sett excavation in woodland and scrub. Suitable habitat outside of the Application Site was also extensively searched where accessible.

8.5.3.2 **No further surveys or mitigation are required for badgers.**

## 8.6 Reptiles

### 8.6.1 Legislation

8.6.1.1 The legislation relating to the protection of the more common reptiles (adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slowworm *Anguis fragilis*) in Britain is contained mainly within the Wildlife and Countryside Act (1981) as amended by the Countryside and Rights of Way Act (2000). Their inclusion on Schedule 5 gives 'partial protection' (i.e. only parts of section 9 apply). Under the Act it is an offence to;

- Intentionally (or recklessly) kill or injure commoner reptile species.

8.6.1.2 The less common reptile species such as sand lizard *Lacerta agilis* and smooth snake *Coronella austriaca* have a higher level of protection under the Wildlife and Countryside Act (1981). However, these species will not be present within the Application Site, owing to their restricted southerly British distribution and the lack of suitable habitat.

8.6.1.3 Since its original enactment, the Wildlife and Countryside Act has been subject to many changes (notably via Schedule 12 of the Countryside and Rights of Way Act 2000) and is further protected under the Conservation of Habitats and Species Regulations 2017. These have in particular affected penalties and enforcement. Offences under section 9 of the Act are now 'arrestable'. Enforcement is usually by the Police and less frequently by Natural England. However, section 25(2) of Wildlife and Countryside Act also states that a local authority may institute proceedings. Prosecutions can result in a level five fine (currently £5000) for each offence (and the Act is specific that killing/injuring of each individual animal can constitute a separate offence), the forfeiture of any equipment, etc., used to perpetrate that offence and (under the Countryside and Rights of Way Act 2000) up to six months imprisonment.

### 8.6.2 Field Survey Methodology

8.6.2.1 As would be expected from a survey in February 2020, no direct observations or field signs of reptiles was recorded on site. It is unlikely to observe reptiles on phase 1 surveys without appropriate survey methodology, especially where populations are small or sparse. A full walkover was undertaken to assess the sites potential to support reptiles.

### 8.6.3 Field Survey Results

8.6.3.1 The desktop study identified grass snake as the only reptile species which is found within the wider area. Reptiles are moderately localised in East Yorkshire.

8.6.3.2 The Application Site is considered to be unsuitable for reptiles for the following reasons:

- Reptiles are typically not very wide-ranging species, instead staying in optimum habitat. Such optimum habitat does not occur within close proximity or around the Application Site reducing the likelihood of animals passing through the site.
- This past management is likely to have resulted in the site being sub-optimum for a long-time period, reducing the likelihood of viable populations persisting.
- The site has only been in this state for around 5 years since site clearance. Reptiles are poor dispersers and take a long time to colonise new sites.
- The site is small, surrounded by disturbed arable land and fragmented from optimum reptile habitat in the wider area by extensive road networks and arable land.
- The site is of limited value to amphibian's due to its isolation and lack of wetland habitats, reducing its value to grass snakes.
- No records of reptile occur within 1km of the Application Site.

8.6.4 **Wold Ecology does not recommend any further surveys for reptiles.**

## 8.7 Hedgehog

### 8.7.1 Legislation

8.7.1.1 Although the Hedgehog *Erinaceus europaeus* only receives partial protection under the Wildlife and Countryside Act 1981 (as amended), its numbers have declined dramatically over the past two decades, resulting in the suggested proposal of upgrade to a higher level of protected status. The British population has declined by 25% over the past 10 years. The reasons for the decline are thought to be complex but include the loss of hedgerows and permanent grasslands as well as agricultural intensification.

### 8.7.2 Field Survey Methodology

8.7.2.1 All features of potential value to hedgehogs are surveyed, including areas of thick vegetation, outbuildings, lawns, grassland, scrub, woodland, and hedge bases. Evidence of breeding nests, hibernation nests and loafing nests were searched for in areas of suitable cover.

8.7.2.2 Well-worn animal paths, pool edges and footpaths were inspected for hedgehog footprints. Open areas were inspected for hedgehog droppings, particularly amenity grassland. Additionally, the surrounding road system was surveyed for road casualties.

8.7.2.3 The following field signs will indicate the presence of hedgehogs:

- Nests within dense vegetation, or under sheds/outbuildings
- Hedgehog droppings and prints

- Road casualties.

### 8.7.3 Field Survey Results.

8.7.3.1 No active or unused hedgehog nests were found within the hedge base within the Application Site. Most of the Application Site is too open to support nesting behaviour, although the hedgerow bases and tall vegetation offer suitable habitat.

### 8.7.4 Biodiversity Gains and Recommendations

8.7.4.1 Care must be taken whilst carrying out vegetation clearance, or strimming. A thorough check of the vegetation prior to removal will help ensure that no hedgehogs are injured or killed during development works. Sleeping hedgehogs frequently suffer severe injuries from strimmers.

8.7.4.2 Avoid setting fire to piles of vegetation unless they have been turned, checked or moved immediately prior to burning. Hedgehogs often get killed or injured in fires during vegetation removal and during early November.

8.7.4.3 Encouraging thick hedgerow bases and areas of rough grassland will offer good hedgehog habitat within the study area. Hedgehogs favour lawned grassland in close proximity to rough grassland for foraging where they can access soil invertebrates on evenings.

8.7.4.4 A number of hedgehog houses should be positioned around the site within hedge bases, dense bramble and rough grassland. These will provide important breeding and hibernation sites for hedgehogs within the local area. Boxes should be sited out of direct sunlight with the entrance facing away from prevailing winds, in or under thick vegetation. The boxes should be situated away from busy roads or areas of high disturbance.

8.7.4.5 Providing connectivity between habitats by leaving gaps below fences, gates and walls will allow hedgehogs access in and out of the site.

## 9.0 HABITATS APPRAISAL

### 9.1 Biodiversity Action Plans (BAP) Habitats of Principal Importance for the Conservation of Biological Diversity

9.1.1 In 1995, 'Biodiversity: The UK Steering Group Report' was published, which aimed to conserve and enhance biological diversity within the UK, including action plans for 38 key habitats and for 402 of our most threatened species. These plans describe the status of each habitat and species, outline the threats they face, set targets and objectives for their management, and propose actions necessary to achieve recovery. The Biodiversity Action Plans (BAP) have recently been updated, new ones added, and others removed, so there are numerous habitats that have been listed as priorities for conservation action. A list of these UK BAP species and habitats can be found at <http://jncc.defra.gov.uk/page-5706>

9.1.2 In addition, there are approximately 150 Local Biodiversity Action Plans (LBAP), normally at county level. These plans usually include actions to address the needs of the UK priority habitats and species in the local area, together with a range of other plans for habitats and species that are of local importance or interest.

9.1.3 In summary, none of the following UKBAP Habitats (which meet the UKBAP Habitat criterion) were recorded on site:

UK BAP broad habitat.	UK BAP priority habitat.	Habitat present within the Application Site.
Rivers and Streams	Rivers	N
Standing Open Waters and Canals	Oligotrophic and Dystrophic Lakes	N
	Ponds	N
	Mesotrophic Lakes	N
	Eutrophic Standing Waters	N
	Aquifer Fed Naturally Fluctuating Water Bodies	N
Arable and Horticultural	Arable Field Margins	N
Boundary and Linear Features	Hedgerows	N
Broadleaved, Mixed and Yew Woodland	Traditional Orchards	N
	Wood-Pasture and Parkland	N
	Upland Oakwood	N
	Lowland Beech and Yew Woodland	N
	Upland Mixed Ashwoods	N
	Wet Woodland	N
	Lowland Mixed Deciduous Woodland	N
Coniferous Woodland	Upland Birchwoods	N
Acid Grassland	Native Pine Woodlands	N
Calcareous Grassland	Lowland Dry Acid Grassland	N
	Lowland Calcareous Grassland	N
Neutral Grassland	Upland Calcareous Grassland	N
	Lowland Meadows	N
Improved Grassland	Upland Hay Meadows	N
	Coastal and Floodplain Grazing Marsh	N
Dwarf Shrub Heath	Lowland Heathland	N
	Upland Heathland	N

Fen, Marsh and Swamp	Upland Flushes, Fens and Swamps	N
	Purple Moor Grass and Rush Pastures	N
	Lowland Fens	N
	Reedbeds	N
Bogs	Lowland Raised Bog	N
	Blanket Bog	N
Montane Habitats	Mountain Heaths and Willow Scrub	N
Inland Rock	Inland Rock Outcrop and Scree Habitats	N
	Calaminarian Grasslands	N
	Open Mosaic Habitats on Previously Developed Land	N
	Limestone Pavements	N
Supralittoral Rock	Maritime Cliff and Slopes	N
Supralittoral Sediment	Coastal Vegetated Shingle	N
	Machair	N
	Coastal Sand Dunes	N
<b>Marine Habitats</b>		<b>N</b>

## 9.2 Hedgerows

### 9.2.1 Legislation

#### 9.2.1.1 **Permission should be granted from the planning authority prior to removing a hedge and new hedgerows should be planted to compensate for the hedge removal – if applicable.**

### 9.2.2 UKBAP Habitat criterion

9.2.2.1 A hedgerow is defined as any boundary line of trees or shrubs over 20m long and less than 5m wide, and where any gaps between the trees or shrub species are less than 20m wide (Bickmore, 2002). Any bank, wall, ditch or tree within 2m of the centre of the hedgerow is considered to be part of the hedgerow habitat, as is the herbaceous vegetation within 2m of the centre of the hedgerow. All hedgerows consisting predominantly (i.e. 80% or more cover) of at least one woody UK native species are covered by this priority habitat, where each UK country can define the list of woody species native to their respective country. Climbers such as honeysuckle and bramble are recognised as integral to many hedgerows, however they require other woody plants to be present to form a distinct woody boundary feature, as such they are not included in the definition of woody species. The definition is limited to boundary lines of trees or shrubs and excludes banks or walls without woody shrubs on top of them.

9.2.2.2 Based on an analysis of Countryside Survey data, using the threshold of at least 80% cover of any UK native woody species, it is estimated that 84% of countryside hedgerows in GB would be included. Hedgerows are a primary habitat or at least 47 species of conservation concern in the UK, including 13 that are globally threatened or rapidly declining, more than for most other key habitats. They are especially important for butterflies and moths, farmland birds, bats and dormice (where locally present).

9.2.2.3 Since 1945 there has been a continual decline in both the quantity and quality of the UK's native hedgerows either through removal or poor management practices.

The Environment Act 1995 introduced an enabling power to protect important hedgerows in Britain. Land managers are required to consult local authorities before hedgerows can be removed. Article 10 of the EC Habitats Directive requires member states to encourage the management of linear features such as hedgerows in their planning and development policies and with a view to improving the ecological coherence of the Natura 2000 network. This is supported by the Habitats and Species Regulations 2017, which recognises the importance of these features for the migration, dispersal, and genetic exchange of wild species. NPPF further encourages the development of policies for the management of hedgerows.

9.2.2.4 UKBAP targets for hedgerows are:

- Maintain the net extent of hedgerows across the UK
- Maintain the overall number of individual, isolated hedgerow trees and the net number of isolated veteran trees.
- Ensure that hedgerows remain, on average, at least as rich in native woody species
- Achieve favourable condition of 348,000 km (50%) by 2015
- Reverse the unfavourable condition of over-managed hedgerows across the UK by reducing the proportion of land managers who trim most of their hedges annually
- Halt further decline in the condition of herbaceous hedgerow flora in Great Britain by 2010 (and improve their condition by 2015)
- Improve the condition of the hedgerow tree population by increasing numbers of young trees (1-4 years) in Great Britain to 80,000 by 2015 and
- Achieve a net increase in the length of hedgerows of an average of 800 km per year in Great Britain to 2015.

9.2.2.5 The criteria for an important hedgerow are one or more of the following:

- Marks a pre-1850 parish or township boundary.
- Incorporates an archaeological feature.
- Is part of, or associated with, an archaeological site.
- Marks the boundary of, or is associated with, a pre-1600 estate or manor.
- Forms an integral part of a pre-parliamentary enclosure field system.
- Contains certain categories of species of bird, animals or plants listed in the Wildlife and Countryside Act or Joint Nature Conservation Committee (JNCC) publications and includes:
  - (a) at least seven woody species, on average, in a 30m length.
  - (b) at least six woody species, on average, in a 30m length and has at least three associated features.
  - (c) at least six woody species, on average, in a 30m length including a black-poplar tree, or a large-leaved lime, or small-leaved lime, or wild service-tree.
  - (d) at least five woody species, on average in a 30m length and has at least four associated features.

9.2.2.6 Runs alongside a bridleway, footpath, road used as a public path, or a byway open to all traffic and includes at least four woody species, on average, in a 30m length and has at least two of the associated features listed at (i) or (v) below. The associated features are:

- (i) a bank or wall supporting the hedgerow.
- (ii) less than 10% gaps.



- (iii) on average, at least one tree per 50m.
- (iv) at least three species from a list of 57 woodland plants.
- (v) a ditch.
- (vi) a number of connections with other hedgerows, ponds or woodland.
- (vii) a parallel hedge within 15m.

9.2.2.7 Based on the criteria above, Wold Ecology does not consider the privet hedge within the Application Site to be important UKBAP habitat.

### 9.2.3 Biodiversity Gains and Recommendations

9.2.3.1 If applicable, hedges should be cleared outside of the bird nesting season (i.e. clearance should be undertaken between mid-September and early February inclusive) or be carefully checked\* by an ecologist to confirm no active nests are present - prior to removal during the summer period. If nesting birds are found during the watching brief, works will need to stop until the young have fledged.

\* Thick and overgrown hedgerows are often difficult to inspect fully and removal of a hedge during the spring/summer period is not recommended.

9.2.3.3 The hedgerows bounding the site should ideally be maintained to a minimum height of at least 2m and kept free of fertilisers, pesticides and development on land within 3m of the hedge centre. The long-term management of these hedges will add to their biodiversity value; the hedge should be cut only once every three calendar years and should not be cut between the beginning of February and mid-September to ensure breeding birds are not disturbed. Hedge cutting should occur outside of the bird nesting season (i.e. clearance should be undertaken between mid-September and early February inclusive). Cutting the hedge in January will provide maximum quantities of food for birds over winter.

9.2.3.4 New boundary hedgerows should comprise:

- Hawthorn - 40%
- Blackthorn - 25 %
- Holly - 5%
- Hazel - 10%
- Field Maple - 10%
- Crab Apple - 10%

9.2.3.5 The hedgerows should be trimmed every three years at the end of winter, avoiding periods of hard frost. This is to maintain the current shape and condition of the hedgerows. Hedgerows less than 2m in height should be lightly trimmed along the sides annually until a desired height of at least 2.5m is reached.

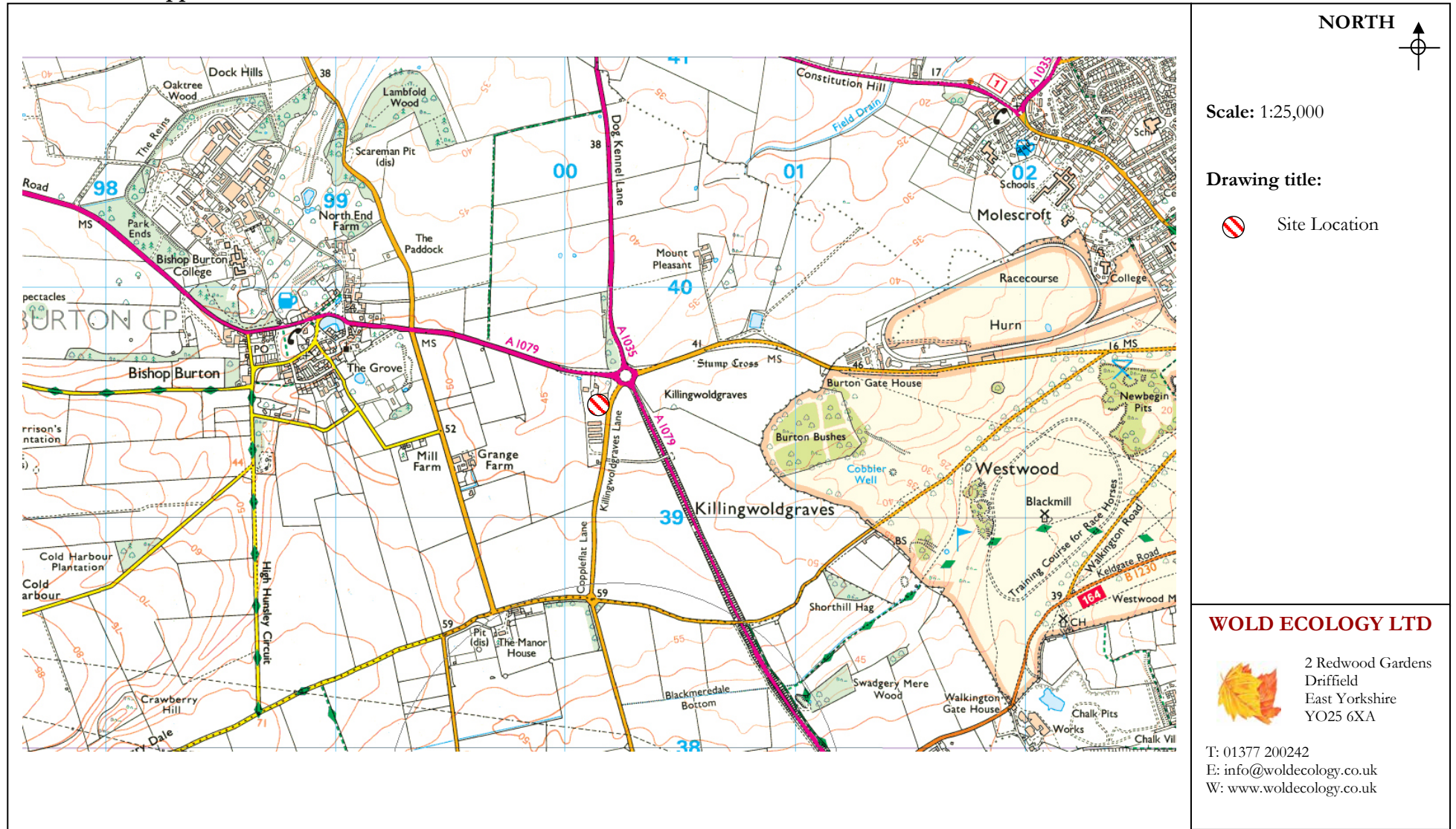
9.2.3.6 A minimum 3m grass margin adjacent to the hedges adjacent within the Application Site should be encouraged and allowed to provide rough grassland dispersal routes and habitat for small mammals. The grassland should be cut during late summer (August/September) with all cuttings should be removed from the site to stop soil enrichment and the smothering of less competitive species of herb. The grassland should be cut every 2-3 years, as part of the management program on a 2-3-year rotation, to avoid scrub encroachment. The grassland margins should be topped at 12cm to encourage tussocks.

- Andrews, H., *et al*, (2013). *Bat Tree Habitat Key*. AEcol, Bridgewater.
- Arntzen, J.W. & Teunis, S.F.M (1993). *A six-year study on the population dynamics of the crested newt (Triturus cristatus) following the colonisation of a newly created pond*. Herpetological Journal 3: 99-110.
- Baker, J., Beebee, T., Buckley, J., Gent, T. and Orchard, D. (2011). *Amphibian Habitat Management Handbook*. Amphibian and Reptile Conservation, Bournemouth.
- Beebee, T., & Griffiths, R., (2000), *Amphibians and Reptiles*, Harper Collins.
- Chinery, M., (2007), *Insects of Britain and Western Europe*, A & C Black.
- Chinery, M., (2011), *Britain's Plant Galls*, Wild Guides.
- Cramp, S. and Simmons, K.E.L., (1980), *The Handbook of the Birds of Europe the Middle East and North Africa, The Birds of the Western Palaearctic*. (eds.), 1, 2, 3, 4, 5, 6, 7, 8, 9, Oxford University Press.
- Dietz, C., Helversen, O.V., & Nill, D., (2009), *Bats of Britain, Europe & Northwest Africa*. A & C Black.
- Entwhistle, A.C., Harris, S., Hutson, A.M., Racey, P.A., Walsh, A., (2001). *Habitat Management for Bats - A guide for land managers, land owners and their advisors*. JNCC.
- Ferguson-Lees, J., Castell, R., & Leech, D., (2011) *A Field Guide to Monitoring Nests*, BTO.
- Gent, T., & Gibson, S., (2003), *Herpetofauna Workers' Manual*. Pelagic publishing.
- Gilbert G., Gibbons D.W. & Evans J. (1998) *Bird Monitoring Methods: A manual of techniques for key species*, RSPB, Sandy.
- Gregory R., D., Wilkinson N., I., Noble D., G., Robinson J., A., Brown A., F., Hughes J., Procter D., A, Gibbons D., W. and Galbraith C., A., (2002), *The population status of birds in the United Kingdom, Channel Islands and Isle of Man: an analysis of conservation concern 2002–2007*. British Birds 95: 410–450.
- Greenhalgh, M., & Ovenden, D., (2007), *Freshwater Life; Britain and Northern Europe*. Harper Collins.
- Habitats Directive*. (1994) European Commission.
- Harris, S., & Yalden, D.W., (2008), *Mammals of the British Isles, Handbook, 4th Edition*. The Mammal Society.
- Jehle, R., Thiesmeier, B., & Foster, J., (2011), *The Crested Newt a dwindling pond-dweller*, Laurenti-Verlag (Germany).
- JNCC, (2010), *Handbook for Phase 1 habitat survey - a technique for environmental audit*.

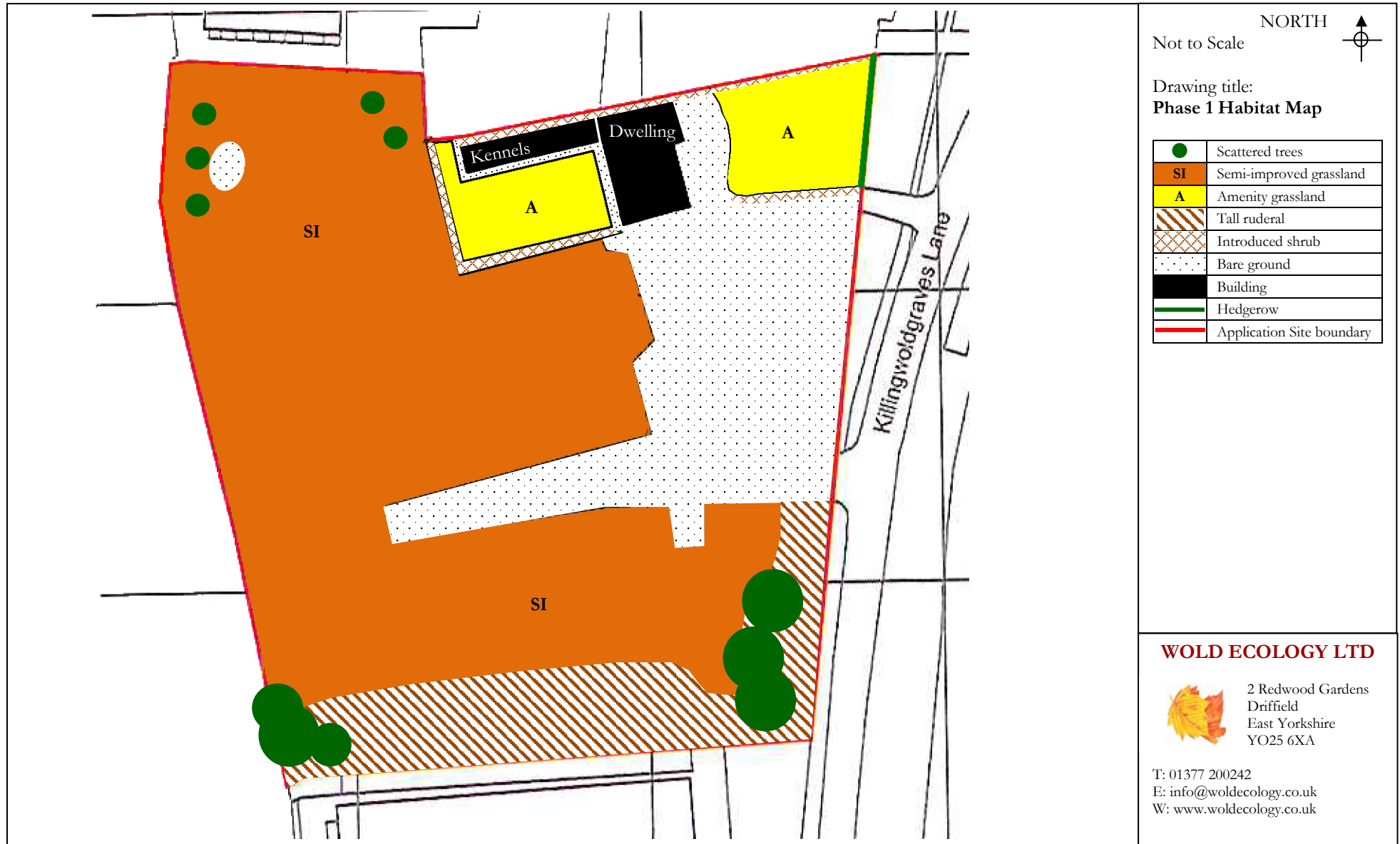
- Johnson, O., & More, D., (2004), *Collins Tree Guide*, Harper Collins.
- Langton, T, Beckett, C, & Foster, J, (2001), *Great Crested Newt Conservation Handbook*. Froglife.
- Lever, C., (2009), *The Naturalized Animals of Britain and Ireland*, New Holland Publishers (UK) Ltd.
- Macdonald, D., & Barrett, P., (1993), *Mammals; Britain and Europe*, Harper Collins.
- Mitchell-Jones A.J. (2004). *Bat Mitigation Guidelines*, English Nature, Peterborough.
- Mather, J., (1986). *The Birds of Yorkshire*. Christopher Helm Publishers Ltd.
- Natural Area Profile*. English Nature, 1997.
- Protection of Badgers Act*. 1992.
- Roper, T.J., *Badger*, New Naturalist, Harper Collins.
- Streeter, D., Hart-Davies, C., Hardcastle, A., Cole, F., & Harper, L., (2009), *Collins Flower Guide*, Harper Collins.
- Svensson, L., (2009) *Collins Bird Guide: The most complete guide to the birds of Britain and Europe*, 2nd Ed., Harper Collins.
- The Wildlife and Countryside Act*, HMSO. Anon, 1981.
- Tranche 2 Action Plans: Terrestrial and Freshwater Habitats*. UK Biodiversity Group, 1998. Crown Copyright.
- Wembridge, D., (2012), *Urban Mammals a concise guide*, Whittet Books Ltd.
- Williams, J., (2010), *The Otter*, Merlin Unwin Books.
- [http://www.english-nature.org.uk/citation/citation\\_photo/1003238.pdf](http://www.english-nature.org.uk/citation/citation_photo/1003238.pdf). 1984
- <http://www.ukbap.org.uk/UKPlans.aspx?ID=7>
- <http://www.natureonthemap.org.uk/identify.aspx>

11.0 APPENDICES

11.1 Appendix 1



11.2 Appendix 2



### 11.3 Appendix 3 – Summary of desktop study

Organisation.	Response Summary.	Date.
Natural England.	Local designations.	February 2020
Natural England.	UKBAP species and habitats within 2 km of the Application Site.	February 2020
North and East Yorkshire Ecological Data Centre.	Species lists within 2 km of the Application Site.	February 2020
www.magic.gov.uk	European Protected species licenses within 2km of the Application Site.	February 2020
Wold Ecology network.	Species lists within 5 km of the Application Site.	2006 – to present day.

### 11.4 Appendix 4 - Protected Species Legislation

The following provides background to the current legislation in England - for full details reference should be made to the relevant legislation. A number of wild animals are classified as Protected Species as they are protected by various pieces of legislation. The most commonly encountered Protected Species of animal are listed in the table below. This table summarises which sections of legislation each species is protected by and the legislative text is provided on the following pages.

Legislation	Schedule 5 Wildlife and Countryside Act 1981 (As amended) Part 1							EPS	PBA
	S1 (1)	S1 (4 & 5)	S9 (1)	S9 (2)	S9 (4)(a)	S9 (4)(b)	S9 (5)		
Adder <i>Vipera berus</i>			✓*				✓		
Common lizard <i>Zootoca vivipara</i>			✓*				✓		
Grass snake <i>Natrix natrix</i>			✓*				✓		
Slow worm <i>Anguis fragilis</i>			✓*				✓		
Smooth snake <i>Coronella austriaca</i>			✓	✓	✓	✓	✓	✓	
Sand lizard <i>Lacerta agilis</i>			✓	✓	✓	✓	✓	✓	
Great Crested Newt <i>Triturus cristatus</i>			✓	✓	✓	✓	✓	✓	
Natterjack Toad <i>Epidalea calanita</i>			✓	✓	✓	✓	✓	✓	
All UK bats Chiroptera			✓	✓	✓	✓	✓	✓	
Water vole <i>Arvicola amphibious</i>			✓	✓	✓	✓	✓		
Otter <i>Lutra lutra</i>			✓	✓	✓	✓	✓	✓	
Dormouse <i>Muscardinus avellanarius</i>			✓	✓	✓	✓	✓	✓	
Badger <i>Meles meles</i>									✓
Red Squirrel <i>Sciurus vulgaris</i>			✓	✓	✓	✓	✓		
Pine Marten			✓	✓	✓	✓	✓		

<i>Martes martes</i>									
Scottish Wildcat <i>Felis silvestris</i>			✓	✓	✓	✓	✓	✓	
White-clawed crayfish <i>Austropotamobius pallipes</i>			✓				✓		
All Nesting birds	✓								
Specific Nesting birds i.e. Barn Owl, Black Redstart	✓	✓							

S = Section

() = Paragraph

EPS = European Protected Species i.e. listed under Regulation 40 of the Conservation (Natural Habitats &c.) Regulations 2017

PBA = Protection of Badgers Act 1992

\* = Only part of this section

## Legislative Text

### Wildlife and Countryside Act 1981 (as amended)

Since its original enactment, the Wildlife and Countryside Act has been subject to many changes (notably via Schedule 12 of the Countryside and Rights of Way Act 2000). These have in particular affected penalties and enforcement. Offences under section 9 of the Act are now 'arrestable'. Enforcement is usually by the Police and less frequently by Natural England. However, section 25(2) of Wildlife and Countryside Act also states that a local authority may institute proceedings. Prosecutions can result in a level five fine (currently £5000) for each offence (and the Act is specific that killing/injuring of each individual animal can constitute a separate offence), the forfeiture of any equipment, etc., used to perpetrate that offence and (under the Countryside and Rights of Way Act 2000) up to six months' imprisonment.

The Wildlife and Countryside Act 1981 (as amended), transposes into domestic law the Convention on the Conservation of European Wildlife and Natural Habitats (the Bern Convention). It is an offence under the various sections of Part 1 of the Act to -

**S.1 (1)** intentionally kill, injure, or take any wild bird or their eggs or nests.

**S.1 (4)** intentionally or recklessly kill, injure, or take any wild bird listed on Schedule 1 of the Act, or their eggs or nests (special penalties apply if convicted) (For a full list of Schedule 1 bird species see the full text of the Wildlife and Countryside Act 1981 [as amended])

**S.1(5) (a)** disturb any wild bird listed on Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or

**(b)** disturb dependent young of such a bird

**S.9 (1)** intentionally or recklessly kill, injure or take any wild animal included in Schedule 5 (certain reptiles are only protected from killing and injuring);

**S.9 (2)** be in possession or control of any live or dead wild animal included in Schedule 5 or any part or derivative;

**S.9 (4) (a)** intentionally or recklessly damage or destroy, or obstruct access to, any structure or place used by a Schedule 5 animal for shelter or protection;

**S.9 (4) (b)** disturb any such animal while it is occupying such a structure or place which it uses for that purpose

**S.9 (5) (a)** sell, offer for sale, possess or transport any live or dead wild animal included in Schedule 5 for the purpose of sale or any part or derivative;



**S.9 (5) (b)** advertise for buying or selling such things.

### **European Protected Species (EPS)**

EPS and their breeding sites or resting places are protected under Regulation 41 of the Conservation of Habitats & Species Regulations, 2017. These Regulations transpose Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law.

A person who—

- (a) deliberately captures, injures or kills any wild animal of a European protected species,
- (b) deliberately disturbs wild animals of any such species,
- (c) deliberately takes or destroys the eggs of such an animal, or
- (d) damages or destroys a breeding site or resting place of such an animal, is guilty of an offence.

For the purposes of paragraph (b), disturbance of animals includes in particular any disturbance which is likely—

- (a) to impair their ability—
  - (i) to survive, to breed or reproduce, or to rear or nurture their young, or
  - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
- (b) to affect significantly the local distribution or abundance of the species to which they belong.

(However, please note that the existing offences under the Wildlife and Countryside Act, which cover obstruction of places used for shelter or protection (for example, a bat roost), disturbance and sale, still apply to EPS.)

These actions can be made lawful through the granting of licenses by the appropriate authorities, e.g. Natural England. Licenses may be granted for a number of purposes (such as science and education, conservation, preserving public health and safety), but only after the appropriate authority is satisfied that there are no satisfactory alternatives and that such actions will have no detrimental effect on the wild population of the species concerned.

### **Protection of Badgers Act 1992 (PBA)**

The main legislation protecting badgers is the Protection of Badgers Act 1992. This Act consolidates all previous legislation including the Badgers Act 1973 (as amended) and the Badgers (Further Protection) Act 1991. Under the 1992 Act it is an offence to:

- destroy a sett
- interfere with a badger sett by damaging a sett or any part thereof
- obstruct access to a sett
- disturb a badger while occupying a sett
- wilfully kill, injure, take or attempt to kill, injure or take a badger;
- dig for a badger
- possess a dead badger or any part of a badger
- cruelly ill-treat a badger
- use badger tongs in the course of killing, taking or attempting to kill a badger



- sell or offer for sale or control any live badger
- mark, tag or ring a badger
- cause a dog to enter a sett

The 1992 Act defines a badger sett as: “any structure or place which displays signs indicating current use by a badger”. Since development operations may take place over a protracted period, Natural England recommends that licences be sought for developments that may affect seasonally-used setts as well as main setts. Natural England considers a good guide to be that if a sett has shown signs of occupation within the past twelve months it is considered active.

The Protection of Badgers Act 1992 allows for licences to be issued for a number of purposes, including development under the Town and Country Planning Act 1990 and to prevent serious damage to property. Licences to interfere with badger setts or disturb badgers for development are issued by the Government’s statutory nature conservation agencies, e.g. Natural England.

## 11.5 Appendix 5 - Staff Profiles

### Field Surveyor Profile – Chris Toohie M Sc., MCIEEM.

**Job title:** Director.

#### **Career Summary.**

- Chris has worked in the environmental sector for all of his working life. He is an experienced and competent site manager with well-developed organisational skills and a proven ability to deal with a variety of situations in pressurised and challenging environments. As the former site manager of Millington Wood SSSI, Beverley Parks Millennium Orchard Local Nature Reserve and three reserves on the Flamborough Head Heritage Coast/SSSI, Chris has gained an understanding of the functioning of local government and the skills to operate within such structures and multicultural environments. Chris completed over 14 years within local authority countryside services.
- Chris has also instigated accreditation from the Forest Stewardship Council at all East Riding of Yorkshire Council owned woodlands. As group manager, Chris ensured compliance with the UK Woodland Assurance Standard and demonstrated that the woodlands were managed in a socially, economically and environmentally sustainable manner.
- Chris is currently heavily involved in local projects and has volunteered his time and resources to benefit local conservation projects that include The Wolds Barn Owl Study Group, Ryedale Folk Museum Cornflower Project, BTO, Lower Derwent Valley, North Cliff Marsh Flamborough and apple conservation. As a trustee of Driffield’s Millennium Green, Chris has allocated his own time and financial resources to enhance the ecological value of the site.
- Chris is an excellent communicator and his enthusiasm for his work has enabled the successful deliverance of numerous conservation schemes. Chris has been instrumental in raising over £100,000 for environmental and community projects since 2005. These have included grants from Natural England, landfill tax credits and Heritage Lottery funding.

### **Project Experience in last 5 years.**

- Chris has undertaken over 850 bat activity surveys since 2006 including writing and implementing over 110 Natural England bat development licenses.
- Chris is one of 186 (January 2020) Natural England Registered Ecological Consultants able to hold a Low Impact Bat Class Licence (BLICL). Chris is the only Natural England Registered Ecological Consultant in East Yorkshire/Hull/Lincolnshire and one of a small number of Registered Consultants in North Yorkshire. The BLICL can reduce time and costs in the long term if roosting bats are found.
- Phase 1 ecology surveys and biodiversity assessments have included National Nature Reserves, SSSI's, local wildlife sites and urban sites; specifically, Chris has undertaken ecological surveys at Raincliffe Wood SSSI, sections of Hadrian's Wall and numerous English Heritage Castles. Reports have also meet BREEAM/CfSH criteria, when applicable.
- Contracts have included Natural England, English Heritage, East Riding of Yorkshire Council, Scarborough Borough Council, NPS London, Hull City Council, Gateway, Riverside Housing, IMS Windpower, Kier London Ltd, NHS, Castle Howard Estates, Cemex, Stroma, Bolton Abbey Estates and Pell Frischman.

### **Field Surveyor Profile – Daniel Lombard B Sc. (Hons), MCIEEM.**

**Job title:** Ecologist.

#### **Career Summary.**

- Daniel has spent all his working life in the environmental sector. He is an experienced and competent field ecologist with proven skills in species identification across a range of biota and an in-depth appreciation of many aspects of biodiversity, ecology and biology.
- Upon leaving University Daniel volunteered with a range of conservation organisations including The Wildlife Trust, North York Moors National Park, BTO and RSPB.
- He briefly operated as a freelance ecologist before starting full time at Wold Ecology.
- Daniel is currently involved in a number of local projects in which he has volunteered his time and resources. He is a member of Filey Bird Observatory and acts as the recorder for both Dragonflies and Butterflies within the group.
- He acts as an ecologist giving free advice to the Yorkshire branch of Butterfly Conservation including habitat management plans and field surveys. He also contributes to the BTO bird ringing scheme, helping in the scientific study birds.
- Daniel also contributes to national invertebrate, bird, fungi and mammal recording schemes.

### **Project Experience in last 5 years.**

- Daniel has undertaken over 300 bat activity surveys since 2010 including dawn and dusk surveys at a range of sites across England.
- Daniel specialises in reptile, amphibian, bird and mammal surveys and has undertaken a wide range of surveys for species including otter, water vole, badger, adder, grass snake, common lizard, slow worm and great crested newt. This includes writing and contributing towards mitigation strategies and

habitat enhancements where appropriate. He has also contributed to white clawed crayfish surveys.

- Daniel has undertaken a large number of Phase 1 surveys, EIA assessments and biodiversity assessments as well as both BREEAM and CfSH reports.
- Daniel has undertaken and helped supervise a seabird surveys on the North Yorkshire coastline at an internationally important seabird colony on the behalf of Natural England and the Environment Agency. This has involved leasing with a variety of conflicting stakeholders to mitigate against potential adverse impacts to the colony.

## 11.6 **Appendix 6 – Identification of Legal and Planning Policy Issues in England**

### *Scope of Assessment*

The first step is to identify any biodiversity features found on the site that are subject to legal or policy controls, as follows:

### *Designated Sites*

The location of the site is compared to the distribution of sites with a statutory or non-statutory nature conservation designation using information derived from the desk study. Consideration is given to designated sites that could be affected directly or indirectly by the proposed development.

### *Habitats outside Designated Sites*

The habitats known to occur on the site are compared to those which receive some protection, in law or policy, outside of designated sites i.e. hedgerows, uncultivated land and semi-natural areas, habitats listed as Priorities in the UKBAP, habitats listed as Habitats of Principal Importance for the Conservation of Biodiversity by the Secretary of State and habitats listed as requiring action in the Local Biodiversity Action Plan.

### *Ancient Woodland*

The ancient woodland inventory is checked to determine whether any known ancient woodland occurs either on the site or nearby.

### *Protected Species*

The species known to occur on the site as a result of the desk study and Phase 1 habitat survey are compared with those listed in nature conservation legislation i.e. the Wildlife and Countryside Act 1981, as amended, and the Habitats and Species Regulations 2017, as amended.

In addition, the species known to occur on the site as a result of the desk study and Phase 1 habitat survey are compared with those listed in animal welfare legislation, i.e. the Badgers Act 1992 and the Wild Mammals (Protection) Act 1996.

### *Biodiversity Action Plan Priority Species*

The species known to occur on the site are compared with those listed as Priorities in the UKBAP, Species of Principal Importance for the Conservation of Biodiversity by the Secretary of State or requiring action in the Local Biodiversity Action Plan.

### *Other Species of Conservation Concern*

The species known to occur on the site are compared with other nature conservation listings, such as red data books.

### ***Invasive Plant Species***

The species of plant present on the site are compared with those listed by government agencies as invasive non-natives, with particular attention given to those listed in the Wildlife and Countryside Act.

### ***Review of Legislation and Policy***

If any of the above are found to occur on or near the site and are likely to be affected by the development in any way, the relevant legislation and planning policy (including national, regional, county and borough policies) are examined to determine whether the proposed development is compliant.

### ***Ecological Enhancement***

Planning policy generally requires new developments to be enhanced for biodiversity. The existing proposals are considered to determine whether biodiversity enhancements are offered and whether they are adequate to meet the policy requirements. Again, national, regional, county and borough policies are considered.

### ***Identification of Potential Further Ecological Issues***

Further ecological issues are those which cannot be resolved during the desk study, extended phase 1 habitat survey and preliminary ecological appraisal for any reason, including the following:

- The development is near a designated site and consultation with the relevant regulator is required to determine whether further assessment is required;
- Suitable habitat is present on or near the site for a protected species/species of conservation concern and specialist survey techniques are required for their detection;
- Suitable habitat is present on or near the site for a protected species/species of conservation concern and the extended phase 1 habitat survey and preliminary ecological appraisal was not undertaken at a suitable time of year for their detection;
- A protected species/species of conservation concern was found on or near the site but further information on population size or distribution is required to resolve any legal and planning policy issues (such as obtaining licences).

Discussion of issues raised by 3rd parties, e.g. reports of protected species from the site by local people, may also be discussed under this heading.

The desk study is used as a guide to the protected species/species of conservation in the local area, however, the list is not taken to be exhaustive and it is borne in mind that some species may no longer occur in the locality.

No attempt is made to evaluate the importance of the site for species not yet confirmed to be on or near the site, nor to discuss the implications for the development if the species were to be found on the site.

No attempt is made to evaluate the importance of the site for species not yet confirmed to be on or near the site, nor to discuss the implications for the development if the species were to be found on the site.

## 11.7 Appendix 7 Species records within 2km of the Application Site (NEYEDC)

11.7.1 The following species have been recorded within 2km of the Application Site:

Scientific name	Common name	Taxonomic group	Year	Designated as
<i>Apus apus</i>	Swift	bird	2011	Bird-Amber; Bird_RedList_GB_post2001-EN_Breeding
<i>Buteo buteo</i>	Buzzard	bird	2019	CMS_A2; ECCITES-A
<i>Delichon urbicum</i>	House Martin	bird	1988	Bern-A2; Bird-Amber; Bird_RedList_GB_post2001-VU_Breeding
<i>Emberiza citrinella</i>	Yellowhammer	bird	2016	Bern-A2; Bird-Red; England_NERC_S.41
<i>Falco tinnunculus</i>	Kestrel	bird	2019	Bern-A2; Bird-Amber; Bird_RedList_GB_post2001-VU_Breeding; CMS_A2; ECCITES-A
<i>Hirundo rustica</i>	Swallow	bird	2014	Bern-A2
<i>Milvus milvus</i>	Red Kite	bird	2018	BirdsDir-A1; CMS_A2; ECCITES-A; RedList_Global_post2001_NT; WACA-Sch1_part1
<i>Troglodytes troglodytes</i>	Wren	bird	1988	Bern-A2
<i>Turdus philomelos</i>	Song Thrush	bird	1988	Bird-Red
<i>Tyto alba</i>	Barn Owl	bird	2014	Bern-A2; ECCITES-A; WACA-Sch1_part1
<i>Vanellus vanellus</i>	Lapwing	bird	2016	Bird-Red; Bird_RedList_GB_post2001-EN_Breeding; Bird_RedList_GB_post2001-VU_NonBreeding; CMS_A2; England_NERC_S.41
<i>Briza media</i>	Quaking-grass	flowering plant	2008	RedList_ENG_post2001-NT
<i>Campanula rotundifolia</i>	Harebell	flowering plant	2007	RedList_ENG_post2001-NT
<i>Cruciata laevipes</i>	Crosswort	flowering plant	2016	RedList_ENG_post2001-NT
<i>Euphorbia peplis</i>	Purple Spurge	flowering plant	1988	ECCITES-B
<i>Fallopia baldschuanica</i>	Russian-vine	flowering plant	1988	INNS
<i>Hyacinthoides non-scripta</i>	Bluebell	flowering plant	2008	WACA-Sch8
<i>Lathyrus linifolius</i>	Bitter-vetch	flowering plant	2007	RedList_ENG_post2001-NT
<i>Plantago media</i>	Hoary Plantain	flowering plant	2007	RedList_ENG_post2001-NT
<i>Potentilla erecta</i>	Tormentil	flowering plant	2007	RedList_ENG_post2001-NT
<i>Sanicula europaea</i>	Sanicle	flowering plant	2007	RedList_ENG_post2001-NT
<i>Veronica officinalis</i>	Heath Speedwell	flowering plant	2001	RedList_ENG_post2001-NT
<i>Dolichovespula (Dolichovespula) media</i>	Dolichovespula media	insect - hymenopteran	2014	Notable-A
<i>Erinaceus europaeus</i>	West European Hedgehog	terrestrial mammal	2003	England_NERC_S.41; RedList_GB_post2001-VU
<i>Lepus europaeus</i>	Brown Hare	terrestrial mammal	2014	England_NERC_S.41
<i>Micromys minutus</i>	Harvest Mouse	terrestrial mammal	1985	England_NERC_S.41; RedList_GB_post2001-NT
<i>Nyctalus noctula</i>	Noctule Bat	terrestrial mammal	1998	Bern-A2; CMS_A2; England_NERC_S.41; HabDir-A4; HabReg-Sch2; WACA-Sch5 Sect9.4b; WACA-Sch5 Sect9.5a
<i>Oryctolagus cuniculus</i>	European Rabbit	terrestrial mammal	2003	RedList_Global_post2001_NT
<i>Pipistrellus</i>	Pipistrelle Bat species	terrestrial mammal	1994	Bern_A2; CMS_A2; HabDir-A4; HabReg-Sch2; WACA-Sch5 Sect9.4b; WACA-Sch5 Sect9.5a
<i>Pipistrellus pipistrellus</i>	Common Pipistrelle	terrestrial mammal	2002	Bern-A2; CMS_A2; HabDir-A4; HabReg-Sch2; WACA-Sch5 Sect9.4b; WACA-Sch5 Sect9.5a
<i>Plecotus auritus</i>	Brown Long-eared Bat	terrestrial mammal	2000	Bern-A2; CMS_A2; England_NERC_S.41; HabDir-A4; HabReg-Sch2; WACA-Sch5 Sect9.4b; WACA-Sch5 Sect9.5a
Vespertilionidae	Bats	terrestrial mammal	1995	CMS_A2; HabReg-Sch2; WACA-Sch5 Sect9.4b; WACA-Sch5 Sect9.5a