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Frodingham Road, Scunthorpe, North Lincolnshire

EXTENDED PHASE 1 HABITAT SURVEY November 2017


	Staff Member	Position
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TABLE OF CONTENTS

1.0	EXECUTIVE SUMMARY	2
2.0	INTRODUCTION	3
3.0	COMPANY PROFILE	5
4.0	SURVEY METHODOLOGY	8
5.0	LIMITATION OF FIELD SURVEY	9
6.0	SURVEY RESULTS	10
7.0	EVALUATION OF SURVEY RESULTS	25
8.0	BIBLIOGRAPHY	31
9.0	APPENDICES	33

1.0 EXECUTIVE SUMMARY

- 1.1 In November 2017, Wold Ecology was commissioned to undertake an Extended Phase 1 Habitat Survey at land adjacent to Frodingham Road, Scunthorpe (national grid reference SE 89066 11824) in North Lincolnshire.
- 1.2 In order to accomplish the brief, a desk top study, external consultation and an extended Phase 1 field survey was undertaken by Wold Ecology staff.
- 1.3 The habitats within the Application Site comprise bare recently cleared ground, bounded by a wall, small amount of amenity grassland and a single tree in an area of sub-urban housing. There are no statutory or non-statutory sites within the site boundary.
- 1.4 The proposed development involves the erection of a small number of residential dwellings including services and infrastructure. The majority of the site had been cleared prior to the Wold Ecology field survey.
- 1.5 The surrounding habitat is potentially important and the proposed development may impact upon mobile species. Consequently, the extended phase 1 assessment also targeted the following species relevant to the Application Site and proposed development:
- Bats
 - Great crested newts
 - Badger
 - Birds
 - Reptiles
 - Hedgehogs
- 1.6 The extended phase 1 survey and ecological assessment concludes that the proposed development is unlikely to impact upon any European protected species or associated habitats.
- 1.7 The data collected to support the output of this report is valid for 18 months. This report is valid until **May 2019**. After this time, additional surveys need to be undertaken to confirm that the status of the site, for European protected species, has not changed.
- 1.8 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 November 2017, Wold Ecology was commissioned to undertake an Extended Phase 1 Habitat Survey at land adjacent to Frodingham Road, Scunthorpe (national grid reference SE 89066 11824) in North Lincolnshire.

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): Biodiversity and Geological Conservation – national planning policy relation to biodiversity. NPPF Biodiversity and Geological Conservation gives further direction with respect to biodiversity conservation and land use change/development. NPPF states that not only should existing biodiversity be conserved but importantly that habitats supporting such species should be enhanced or restored where possible. The policies contained within NPPF may be material to decisions on individual planning applications.

2.3 In addition, an ecological assessment is also required so that the local authority comply with the Habitats and Species Regulations 2010 and to have regard to the purpose of conserving biodiversity in the exercise of their functions (Natural Environment and Rural Communities (NERC) Act 2006).

2.4 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.

2.5 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’.

2.6 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).

2.6.1 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.’

- 2.6.2 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.
- 2.6.3 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.
- 2.7 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 Assessment.
- 2.8 This report describes the findings of the field survey and desktop study whilst identifying 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 is a professional company whose staff is experienced in providing a bespoke service for environmental management and ecological assessments. Wold Ecology employs several experienced and qualified associates to undertake specialist survey work. Professional service is of primary importance and Wold Ecology only employs staff who can demonstrate knowledge and expertise to an exceptional standard.
- 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, these 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, Landscape Character Assessment, Environmental Impact Assessments.
 - **European Protected Species Licenses**
Bat Licenses - Chris Toohie is one of 139 Natural England Registered Consultant (December 2016) who can hold a Natural England Bat Low Impact Class License.
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, Cornfield Project (Ryedale Folk Museum), Butterfly Conservation 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, a Bat Conservation Trust Benefactor and Corporate Member of the Yorkshire Wildlife 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 A detailed surveyor profile is included in Appendix 5.
- 3.7 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 15 years’ relevant experience (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).
- 3.8 Surveyor Profile – Daniel Lombard B Sc., MCIEEM.
- 3.8.1 Job title: Senior Field Ecologist.
- 3.8.2 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.
 - Invertebrates studies, principally Lepidoptera, Odonata, Coleoptera and Diptera plus habitat management/creation for these groups.
 - Management planning, pond and wetland management.
- 3.8.3 Qualifications.
- B Sc. Environmental Science.
 - Great Crested Newt License – 2015-17182-CLS-CLS
 - Bat License – 2015-11490-CLS-CLS
 - Bird Ringing C Licence – C/6298
- 3.8.4 Professional Membership.
- Member of the Chartered Institute of Ecology and Environmental Management.

- 3.9 A detailed surveyor profile is included in Appendix 5.
- 3.10 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).
- 3.11 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 SURVEY METHODOLOGY

- 4.1 A Phase 1 Habitat Survey was undertaken on 6th November 2017. 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	06/11/2017	10mph	NW	6°C	6°C	None	10%

- 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 500 m 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 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 and aerial photography and 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 SURVEY RESULTS

6.1 General description

6.1.1 The Application Site is located in the northern half of Scunthorpe, in an urban location. The Application Site is approximately 1ha and is immediately surrounded by residential dwellings, retail buildings, places of worship and urban infrastructure.

6.1.2 Whilst the Application Site is situated within an urban location, the Scunthorpe Guidebook describes states that 'it's actually a surprisingly green place - two recent awards for its open space give credence to that fact – which is proud to be called the 'industrial garden town' (Source - <http://www.findanewhome.com/yorkshire-and-the-humber/north-lincolnshire/scunthorpe/guide.fap>). The Application Site is immediately surrounded by well lit, heavily disturbed, and fragmented urban habitats.

6.1.3 The town of Scunthorpe is largely built on former dry heathland (glacial blown sand) habitats and these sandy soils still dictate the character of the vegetation in many of the town's green spaces and gardens. The presence of light soils means that it is generally more difficult for a few highly aggressive plant species to dominate vegetation (as happens on heavier soils), even after moderate improvement. 'Ordinary' wayside and amenity grassland here is often rather open, and can support a relatively diverse range of species including those characteristic of heath or acid grassland, or even maritime sand.

6.1.4 Woodland cover in the locality is limited and occurs as small shelterbelts, avenues, and plantations. Scattered amenity trees are moderately widespread within the surrounding area as avenues adjacent to roads. Habitat connectivity is relatively poor due to expanses of open, managed amenity grassland, roads, walls and buildings which are abundant within the surrounding area.

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

- Buildings – farm buildings and residential properties
- Industrial Estates
- Steel Works
- Urban Parks and Greenspace
- Golf course
- Hedgerow
- Mature trees and woodland
- Foxhill Plantation
- Skippingdale Plantation
- Brumby Wood
- Arable
- Mature private gardens
- Ponds and watercourses
- Winterton Road Pits
- Grazed pasture

6.2 Desktop Study.

6.2.1 Natural England, Lincolnshire Environmental Records Centre (LERC), National Biodiversity Network (NBN) and www.magic.gov.uk were consulted in order to obtain any ecological information that they hold of relevance to the Application Site.

6.2.2 The desk top study identifies land parcels of nature conservation value within 2 km locality of 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)
- Natural England Habitat Inventories
- Natural 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 Statutory sites

6.2.3.1 The following Local Nature Reserves (LNR's) sites lie within 2 km of the Application Site (see figure 1).

CODE	NAME	STATUS	EASTING	NORTHING	DISTANCE
1009290	Atkinson's Warren	Declared	487787	412178	0.92
1009917	Brumby Wood	Declared	487896	410309	1.47
1082893	Frodingham	Declared	488478	410683	1.22
1123057	Sawcliffe	Declared	490670	413275	1.85
1421575	Phoenix Parkway	Declared	487885	413548	1.49

6.2.4 Local Wildlife Sites (LWS).

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

CODE	NAME	STATUS	EASTING	NORTHING	DISTANCE
22	Atkinson's Warren	Selected LWS	487902	412500	0.92
122	Brumby Wood	Selected LWS	488000	410298	1.47
302	Frodingham Railway Cutting	Selected LWS	488479	410685	1.21
463	Land Adjacent to Johnson's Transport	Selected LWS	487044	412320	1.86
618	Phoenix Parkway	Selected LWS	488007	413381	1.49
4108	Sawcliffe	Selected LWS	490670	413275	1.85
4153	Dragonby Gullet	Selected LWS	490361	413597	1.83
4336	Bessemer Way Brownfield Site	Selected LWS	489808	412621	0.98
4484	Mannaberg Way Drainage Area	Selected LWS	490205	412802	1.41

6.2.5 Sites of Nature Conservation Interest (SNCI's)

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

CODE	NAME	STATUS	EASTING	NORTHING	DISTANCE
4074	Winterton Road Pits	Notified SNCI	490323	412943	1.28

6.2.4.2 The non-statutory and 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 SNCI/LWS/LNR which is greater than 200 metres.

6.2.5 Natural England Habitat Inventories

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

HABITAT	Area (ha)
Lowland dry acid grassland	18.23
Lowland meadows	3.59
Lowland mixed deciduous woodland	34.5
Open mosaic habitats on previously developed land	27.13

6.2.5.2 The notable habitats 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 notable habitat which is greater than 500 metres.

Figure 1.

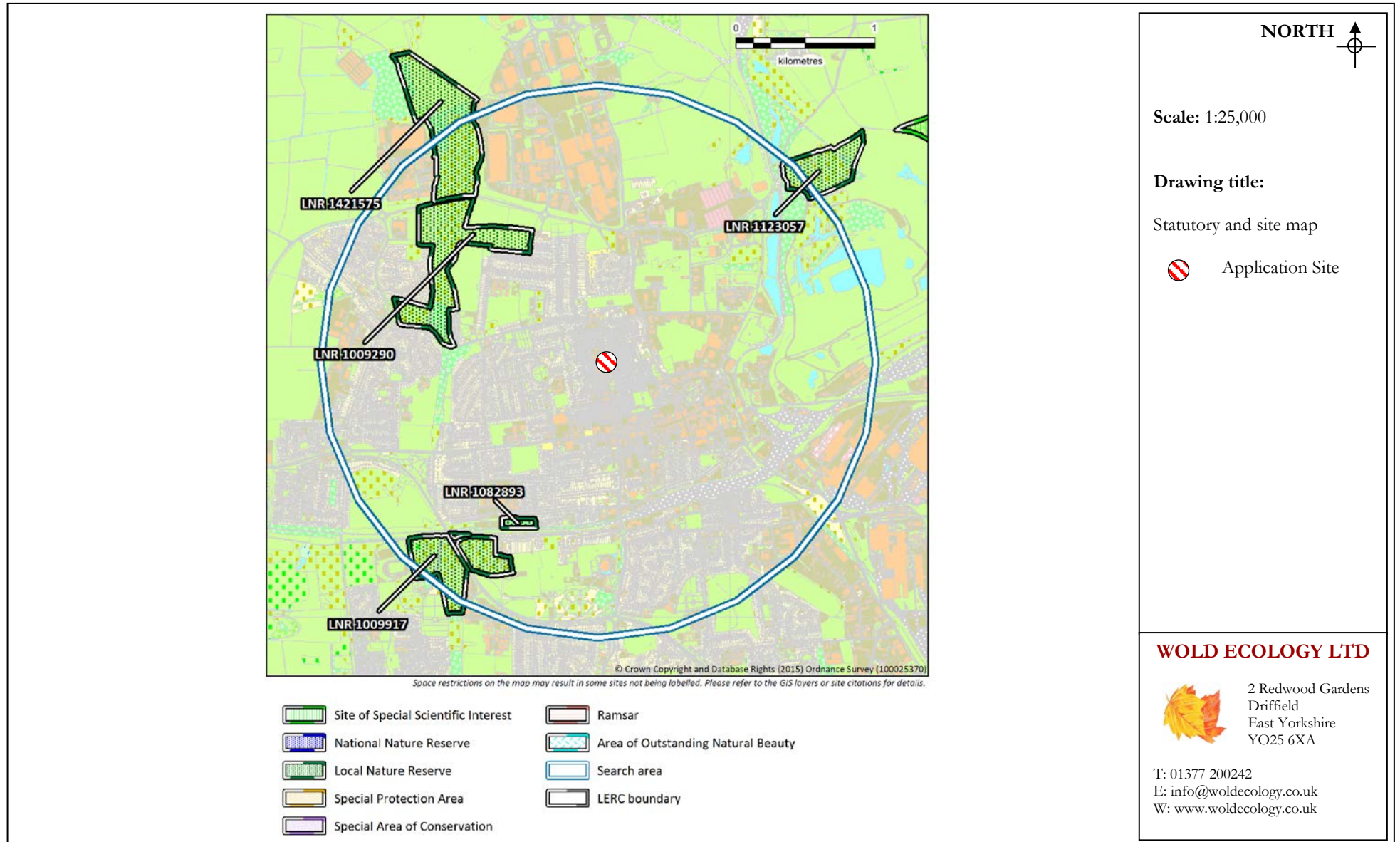
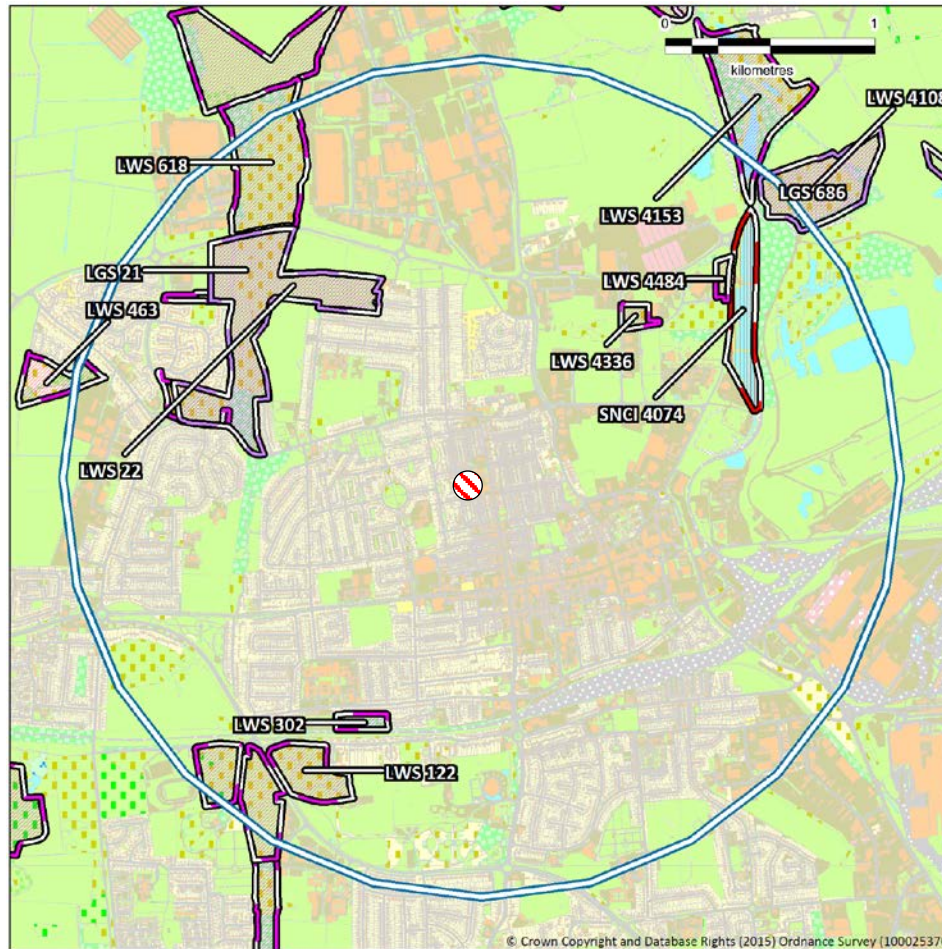
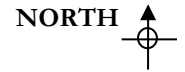


Figure 2.



© Crown Copyright and Database Rights (2015) Ordnance Survey (100025370)
 Space restrictions on the map may result in some sites not being labelled. Please refer to the GIS layers or site citations for details.

- | | |
|---|-------------------------------------|
| Local Wildlife Site | Lincolnshire Wildlife Trust Reserve |
| Local Geological Site (mine entrance) | Roadside Nature Reserve |
| Local Geological Site | Search area |
| Site of Nature Conservation Interest | LERC boundary |
| Regionally Important Geological/Geomorphological Site | |



Scale: 1:25,000

Drawing title:

Non-statutory sites map.

Application Site

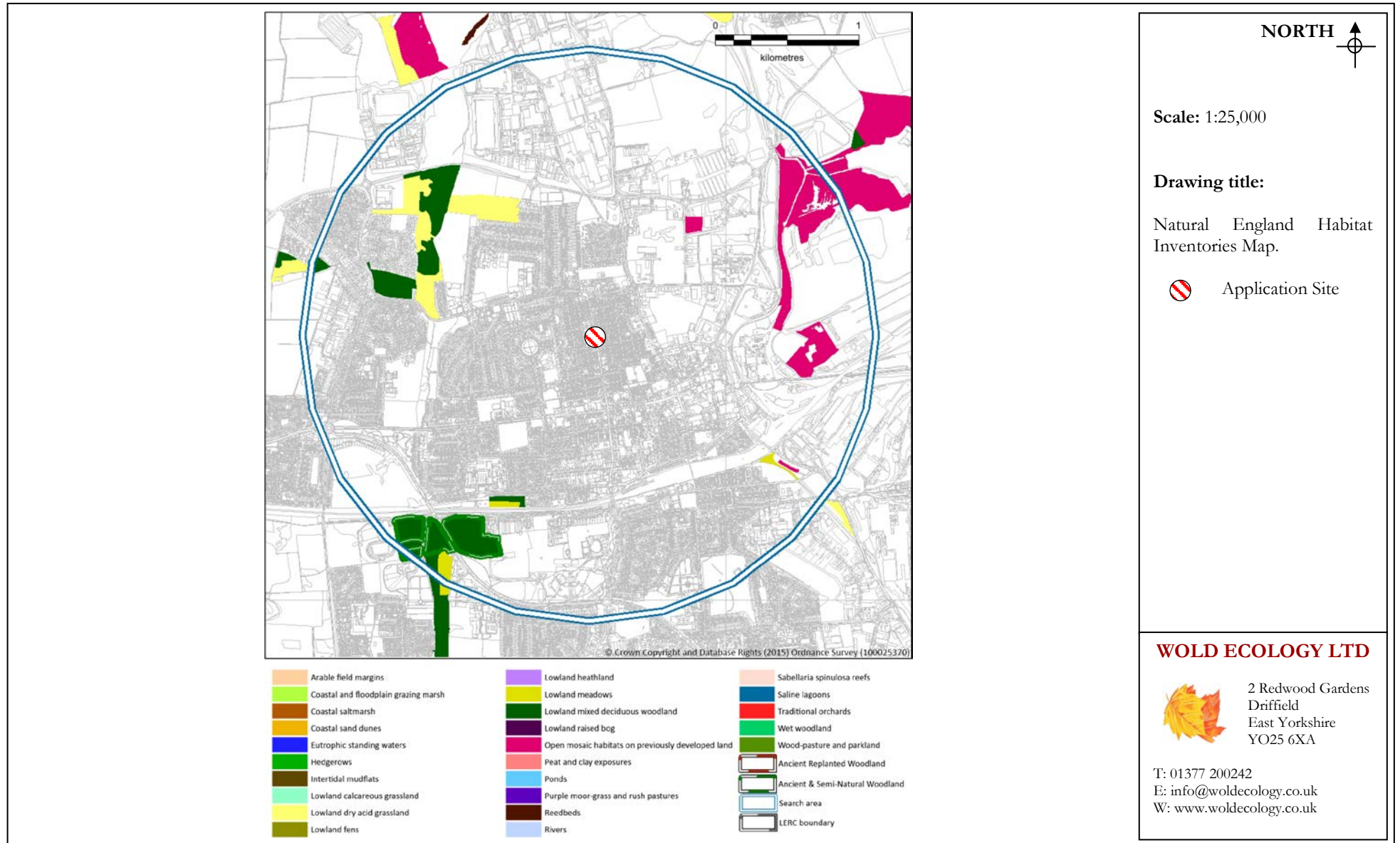
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Figure 3.



NORTH

Scale: 1:25,000

Drawing title:

Natural England Habitat Inventories Map.

Application Site

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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. The Application Site is located within the Natural Character Area 45: The Northern Lincolnshire Edge with Coversands.
- 6.3.3 The Northern Lincolnshire Edge with Coversands NCA comprises a ridge of Jurassic limestone running north from Lincoln to the Humber Estuary. The scarp slope rises prominently from adjacent low-lying land, forming the Edge or Cliff, and giving panoramic views out, in particular to the west. In the north is a second, lower scarp of ironstone. In the vicinity of Scunthorpe are the Coversands, post-glacial wind-blown sands which have given rise to mosaics of heathland, acid grassland and oak/birch woodland, supporting rare plant and animal communities akin to the Brecklands. Risby Warren, historically used as a rabbit warren, reveals the distinctive formation of inland dunes. Several of these sandy sites are designated as Sites of Special Scientific Interest, along with a number of disused limestone, ironstone and sand extraction sites, which comprise geological exposures alongside calcareous grassland, open water and other semi-natural habitats. At the northern boundary the limestone drops below the River Humber.
- 6.3.4 The following Statements of Opportunity (SEO) are relevant to the Application Site:
- **SEO 3:** Maintain the sense of place and the diversity of settlements and landscape features through expanding semi-natural habitats, managing the restoration of extraction sites, retaining the inspirational long views, ensuring that development is sustainable and well-integrated into the landscape, and providing more interpretation and access through good green infrastructure links.

6.4 European Protected Species records

6.4.1 Badger

- Badger *Meles meles* is not recorded within the surrounding 2km radius (source – LERC and NBN Atlas 2017).

6.4.2 Bats

- Currently, there is no pre-existing information on bats at the site.
- Data for the 5km radius shows records of noctule *Nyctalus noctula*, brown long-eared bat *Plecotus auritus*, Daubenton's bat *Myotis daubentonii*, soprano pipistrelle *Pipistrellus pygmaeus* and common pipistrelle *Pipistrellus pipistrellus* (source – LERC and NBN Atlas 2017).
- The following Natural England development licenses are located within 2km of the Application Site (source - magic.gov.uk):

Specie	Distance from site	Destruction of a breeding site	Destruction of a resting site
Common pipistrelle	275m: W	N	Y
Common pipistrelle	800m: E	N	Y

6.4.3 Great crested newts

- Great crested newt *Triturus cristatus* is recorded within 2km of the Application Site, with records 1.7km north east, and 1.3km east of the Application Site. No records occur within 500 metres of the Application Site (source – LERC and NBN Atlas 2017).
- There are no great crested newt Natural England development licenses within 1km of the Application Site (source – www.magic.gov.uk).

6.4.4 Water vole

- Water vole *Arvicola amphibious* has not been recorded within 2km of the Application Site (source – LERC and NBN Atlas 2017).

6.4.5 Otter

- Otter *Lutra lutra* has not been recorded within 2km of the Application Site (source – LERC and NBN Atlas 2017).

6.4.6 Reptiles

- Grass snake *Natrix natrix*, adder *Vipera berus* and common lizard *Zootoca vivipara* are recorded the surrounding 5km radius (source – LERC and NBN Atlas 2017).

6.4.7 Phase 1 Field Survey Results

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

Phase 1 Habitat Classification	Reference Code
Scattered trees (Broad-leaved)	A3.1
Amenity grassland	J1.2
Wall	J2.5
Bare ground	J4

- 6.4.7.2 Scattered Tree
- 6.4.7.2.1 This habitat is restricted to a single silver birch *Betula pendula* in the extreme north-east corner of the site. This tree is approximately 30 years of age and appears to be in relatively good health, it has no associated standing or fallen deadwood. This tree appears to have been planted for its amenity value in association with the sites former use as a school.
- 6.4.7.3 Amenity Grassland
- 6.4.7.3.1 A small strip of this habitat type in the north-east corner of the site and has historically been maintained as short and lush grass cut fortnightly throughout the growing season. It has now fallen out of regular management since site clearance and has grown into a longer lush structure. It also appears to have been subjected to occasional weed removal and applications of fertilisers and herbicides over the past.
- 6.4.7.3.2 Species composition is relatively poor and is dominated by perennial ryegrass *Lolium perenne*, annual meadow grass *Poa annua*, white clover *Trifolium repens*, creeping buttercup *Ranunculus repens*, dandelion *Taxacarium officinale*, groundsel *Senecio vulgaris*, daisy *Bellis perennis* and common ragwort *Jacobaea vulgaris*.
- 6.4.7.4 Wall
- 6.4.7.4.1 This habitat bounds the eastern boundary of the Application Site and comprises a redbrick wall approximately 1 metre in height with metal bars running along the top of it. This habitat is of limited ecological significance although butterfly bush *Buddleja davidii*, ragwort and groundsel *Senecio vulgaris* sporadically grow in its base.
- 6.4.7.5 Bare ground
- 6.4.7.5.1 Bare ground habitats dominate the entire Application Site as a result of recent site clearance. This comprises mainly of bare soil, tarmac and occasionally scattered bricks within it. Due to its relatively recent creation, this habitat has not been colonised by vegetation and is of negligible ecological value.
- 6.4.8 The following species were recorded during the field survey:
- Goldfinch *Carduelis carduelis*
 - Feral pigeon *Columba livia*
 - Collared dove *Streptopelia decaocto*
 - Pied wagtail *Motacilla alba*
 - Black headed gull *Chroicocephalus ridibundus*
 - Herring gull *Larus argentatus*
- 6.4.9 The surrounding habitat is potentially important and the development area may impact upon mobile species. Consequently, the extended phase 1 assessment targeted the following species relevant to the Application Site and proposed development:
- Bats
 - Great crested newt
 - Badger
 - Reptiles

- Birds
- Hedgehog

6.5 Bats

6.5.1 The bat survey involved an initial walkover of the Application Site to assess the overall habitat quality for bats. This included the identification of key potential foraging habitat and potential flight corridors. This survey also targeted any potential or actual roost sites and evidence of actual bat use i.e. droppings, feeding signs.

6.5.2 Trees were assessed for features associated with arboreal bat species, in this region predominantly Daubenton's bat, Natterer's bat, noctule, common pipistrelle, soprano pipistrelle and brown long-eared. Such features typically consist of:

- Woodpecker holes
- Trunk and bough splits
- Tear outs
- Flush cuts
- Frost damage
- Wounds
- Cankers
- Dense ivy growth
- Areas of but rot
- Dry knot holes
- Impact shatters
- Dense epicormic growth.

6.5.3 Conclusions

6.5.3.1 No potential roost sites exist within the Application Site, predominantly due to an absence of buildings and the lack of suitable features within trees. The wider area supports several woodland habitats, mature gardens and grasslands which offer alternate foraging and commuting habitat for bats.

6.5.3.2 The Application Site habitats are not extensive and are similar to surrounding urban habitats and consequently, the Application Site is not considered integral to the favourable population status of local bat populations. The site is exposed and within an urban area, consequently, the Application Site is sub optimum for foraging and commuting bats and is not considered integral to the favourable population status of local bat populations.

6.5.4 **Wold Ecology does not recommend any further surveys for bats.**

6.6 Great crested newt.

6.6.1 No records of great crested newt occur within 500m of the Application Site. Known populations to the east are fragmented by urban habitats and road networks.

6.6.2 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.

6.6.3 Results.

6.6.3.1 No ponds or permanent water bodies suitable for breeding great crested newts were observed within 500m of the Application Site during the walkover survey. The wider habitat is largely well drained except for garden ponds associated with the nearby housing estate. Garden ponds are typically sub-optimum great crested newt habitat and have reduced potential for great crested newt; they are not considered to be of any significance to the species. Key attributes to the decreased probability of great crested newts being present within garden ponds are:

- High density of stocked fish, which predate great crested newt larvae, eggs and adults. The London Essex and Hertfordshire Amphibian and Reptile Trust state that 'Despite the natural protection of a poisonous secretion which makes the adults unpalatable to most predators, the larvae are highly vulnerable to fish predation. Entire colonies can be impacted upon by the introduction of fish'. It is unlikely that the lake now supports great crested newts.
- Decrease macrophyte growth due to fish disturbance and foraging and decreased water turbidity.
- Increased water turbidity due to fish disturbance and associate high nitrate input.
- Fish likely to predate large numbers of the invertebrates important for great crested newt reproduction and adult diet.
- Poor vegetation structure, creating cold micro-climate and lack of sunlight penetration.

6.6.3.2 No known great crested newt populations were recorded within 1km of the Application Site. The surrounding urban habitats significantly hampers great crested newt dispersal into the area, without the aid of humans.

6.6.4 **In conclusion, Wold Ecology does not recommend any further great crested newt survey work.**

6.7 Reptiles

6.7.1 The desktop study identified grass snake, adder and common lizard as the only reptile species which is found within the wider area. Reptiles are moderately localised in North Lincolnshire.

6.7.2 Results

6.7.2.1 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.

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

- Reptiles thermoregulate in sheltered locations, predominantly in close proximity to cover such as rank or shrubby vegetation, large rocks, walls and tree stumps in which they can quickly escape. The Application Site primarily consists of open exposed habitat, making reptiles prone to predation.
- Compost heaps, rotten logs and decaying vegetation provide important breeding, foraging and thermoregulation habitat for slow worm and grass snake. None of which are present in sufficient quantity within the Application Site.
- Reptiles use cracks, crevices and small mammal burrows to access underground refugia and hibernacula. These habitat features are limited within the Application Site, reducing the value to reptiles.
- The lack of the above features, with a sufficient depth to remain frost free reduces the potential for reptiles to hibernate within the Application Site.
- Reptiles are typically not very wide-ranging species, instead staying in optimum habitat. Such optimum habitat does not occur within 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 open nature of the Application Site leaves reptiles open to predation from key predators including crows, domestic cats and foxes.
- The site is small, surrounded by disturbed land and fragmented from optimum reptile habitat in the wider area.
- The poor value of the site to amphibians (grass snake's chief food source) further limit the sites importance to grass snakes.

6.7.3 **Wold Ecology does not recommend any further reptile surveys.**

6.8 **Birds**

6.8.1 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.

6.8.2 The following 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.

6.8.3 **Schedule 1 Listed Birds**

6.8.3.1 Wold Ecology assessed the site schedule 1 listed species recorded in Lincolnshire,

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.

- 6.8.3.2 The Application Site is of low value to schedule 1 listed species. This is primarily due to the disturbed nature of the Application Site, lack of suitable or extensive habitats in the locality and adjacent habitats with no features to support nesting Schedule 1 listed species.
- 6.8.4 None-schedule 1 birds
- 6.8.4.1 Breeding birds
- 6.8.4.1.1 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.
- 6.8.4.2 Wintering Birds
- 6.8.4.2.1 The Application Site is not considered to be valuable to wintering birds like wildfowl and waders. The Application Site is too enclosed, 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.
- 6.8.5 **Wold Ecology does not recommend any further bird surveys.**

6.9 Badgers

- 6.9.1 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.
- 6.9.2 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 and dung pits
 - Badger prints
 - Badger hairs
 - Badger paths
 - Evidence of badger foraging activity
- 6.9.3 Results.
- 6.9.3.1 No main setts, annexe setts, subsidiary setts or outlier setts were located within 50 metres of the development area 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. Tree cover in the Application Site is limited to widely spaced hedgerow trees. Suitable habitat outside of the Application Site was also extensively searched.

6.9.3.2 No evidence of badger activity was noted within the Application Site. With no feeding signs, footpaths, tracks, push throughs or hair recorded. The Application Sites does not appear to be of significant value to badgers in its current state, subsequently the proposed development is considered negligible to the local population.

6.9.3.3 A key consideration in relation to badgers is with respect to the temporary severance of regularly used paths and associated habitat and the possible disturbance or, in a worst-case scenario, damage to a badger sett. In relation to setts, the level of significance would be greatest in relation to impacts to large and permanently occupied setts. Since the Application Site currently has no evidence of any badger setts, it is only the risk of severance of well used dispersal routes which is likely to have an impact. None of which were observed within the Application Site.

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

6.10 Hedgehog

6.10.1 Legislation

6.10.1.1 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.

6.10.2 Survey Methodology

6.10.2.1 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.

6.10.2.2 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.

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

- Nests within dense vegetation, or under sheds/outbuildings
- Hedgehog droppings
- Hedgehog prints
- Road casualties.

6.10.3 Results.

6.10.3.1 No active or unused hedgehog nests were found within the Application Site. The

Application Site is too open to support nesting behaviour.

7.0 EVALUATION OF SURVEY RESULTS

7.1 Overall Approach to Assessment.

7.1.1 The overall approach to assessment followed in this report can be summarised as: A baseline identification of the nature conservation interest within the ecological Application Site by establishing levels of interest for ecological features measured against definable criteria.

7.2 Evaluation Criteria.

7.2.1 The thorough evaluation of the ecological importance of a site is essential in order to assess the significance of the ecological assessment

7.2.2 The evaluation criteria are given in detail in Appendix 6. Their aim is to consider the habitats, communities and species present on site in relation to the following:

- The legislative framework (e.g. the Wildlife and Countryside Act 1981, Habitats and Species Regulations 2010 and the EC Directive on the Conservation of Habitats and Wild Fauna and Flora (92/43/EEC) for the presence of protected species and habitats).
- Nature conservation designations, including national site designations (Sites of Special Scientific Interest, National Nature Reserves etc.), local designations (Sites of Importance for Nature Conservation, Local Nature Reserves, County Wildlife Sites etc.).
- Accepted criteria for species rarity and declining populations, and rarity of habitat types or communities, including species and habitats identified in the British Red Data Books, national biodiversity action plan, and species and habitats identified in regional or local biodiversity action plans where available.
- Accepted criteria for overall site evaluation (including rarity, diversity, naturalness, historical factors and issues relating to landscape ecology).

7.3 Evaluation of Survey Results.

7.3.1 The field survey work did not identify the presence of any habitats or plant species considered rare in the United Kingdom.

Rarity is defined in this report as:

Rare—species not recorded in more than 100, 10 x 10 km grid-squares in the British Isles.

Very Rare—species not found in more than 15 different 10 x 10 km grid-squares in the British Isles.

7.4 Habitats

7.4.1 Biodiversity Action Plans (BAP) and Species and Habitats of Principal Importance for the Conservation of Biological Diversity

7.4.1.1 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 now 1,149 species and 65 habitats that have been listed as priorities for conservation action. A list of these UK BAP species and habitats can be found at <http://www.ukbap.org.uk/NewPriorityList.aspx>.

7.4.1.2 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.

7.4.1.3 None of the following BAP Habitats are 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
	Upland Birchwoods	N
Coniferous Woodland	Native Pine Woodlands	N
Acid Grassland	Lowland Dry Acid Grassland	N
Calcareous Grassland	Lowland Calcareous Grassland	N
	Upland Calcareous Grassland	N
Neutral Grassland	Lowland Meadows	N
	Upland Hay Meadows	N
Improved Grassland	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
Marine Habitats		N

7.5 Species

7.5.1 Bats

7.5.1.1 Legal obligations towards bats are generally concerned with roost protection. All developments, known to contain bat roosts, require a licence from Natural England. Under Section 9 of the Wildlife and Countryside Act (1981), 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.

7.5.1.2 It is good practice, where bats may come into contact with roof timbers, to carry out timber treatment using Permethryn type chemicals on the Natural England list of approved safe chemicals. New pre-treated timbers i.e. tanalised timber will be allowed to dry thoroughly before use, if applicable. A list of Natural England approved paints and timber treatments is available at http://www.naturalengland.org.uk/Images/Bat%20roost%20timber%20treatment_tcm6-10167.pdf.

7.5.1.3 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.

7.5.1.4 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 and www.bct.org.uk.

7.5.1.5 Wold Ecology recommends that at least 5 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.

7.5.1.6 Lighting

7.5.1.6.1 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).

- 7.5.1.6.2 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.
- 7.5.1.6.3 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.
- 7.5.1.6.4 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 cowed to prevent light spill, for main lighting columns
- 7.5.1.6.5 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.
- 7.5.1.6.6 At this site, lights will **not** be mounted where they will shine directly on to bat boxes.
- 7.5.1.7 Habitat enhancements
- 7.5.1.7.1 Freshwater, woodland, grassland, urban gardens, trees and amenity green space are suitable foraging habitats for bats whilst linear habitats such as hedgerows and streams are particularly important commuting routes between roosts and foraging ground. It is recommended that the natural landscape remains largely unchanged and as many mature trees are retained on the site to continue to provide cover and feeding grounds. Landscaped areas can provide good foraging grounds for bats. Areas can be improved by growing night-scented flowers and other flowers favoured by insects. More information on suitable planting to encourage bats obtained from The Bat Conservation Trust (www.bats.org). Suitable species include:
- Foxglove *Digitalis purpurea*
 - Cowslip *Primula veris*
 - Red campion *Silene dioica*
 - Marjoram *Origanum vulgare*
 - Ox-eye daisy *Leucanthemum vulgare*
 - Red clover *Trifolium pratense*
 - Evening primrose *Oenothera biennis*.

- Honeysuckle *Lonicera periclymenum*.
- Wild Clematis *Clematis virginiana*

7.5.2 Birds

7.5.2.1 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.

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

7.5.2.3 Any trees 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.

7.5.2.4 In order to increase nesting opportunities for birds, it is recommended that 4 Schwegler bird boxes are erected throughout the site. A summary of recommended bird boxes is listed below:

Name	Description	Number
Schwegler Nest Box 1B	Entrance hole 32 mm.	4

7.5.2.5 Boxes should be attached to trees using wire where possible, it is important that nails are not used as they damage the tree, get pushed out as the tree grows and can damage chainsaw blades and cause injury if the tree is felled.

7.5.2.6 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. Boxes should be positioned away from the damp side of the tree trunk, usually told by algae, lichen and moss growth. Boxes should also be angled downwards to stop rain blowing into them.

7.5.2.7 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.

7.5.2.8 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.

7.5.3 Management planning

- 7.5.3.1 Management planning is an important tool in safeguarding countryside sites for future generations although, as yet, there are no statutory obligations for the production of management plans. The LA21 and BAP promote sustainable management of habitats, species and land, with management planning playing a major role in achieving this.
- 7.5.3.2 With few natural wildlife habitats remaining in Britain today and the vast majority of nature conservation sites being semi-natural, these habitats require continual management if their complex and fragile conservation value is to be preserved for generations to come.
- 7.5.3.3 The role of a management plan can be diverse and complex, but also flexible to meet the needs of the site managers. The basic role of a management plan is to help ensure the long-term conservation of habitats and related flora and fauna. Lambert et al (1990, p3) highlight that “habitats usually need to be managed if their conservation value is to be maintained” and Clarke and Mount (1998, page i) state that “management planning is all about the good stewardship of land”. These two statements can only be continually achieved to an adequate standard through the formalised production of a management plan.
- 7.5.3.4 It is recommended that a detailed Construction Method Statement, an Ecological Enhancement Plan and a Management Plan is produced in order to protect, maintain and enhance the sites ecological value.

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9.0 APPENDICES

9.1 Appendix 1



Scale: 1:25,000

Drawing title:

 Site Location

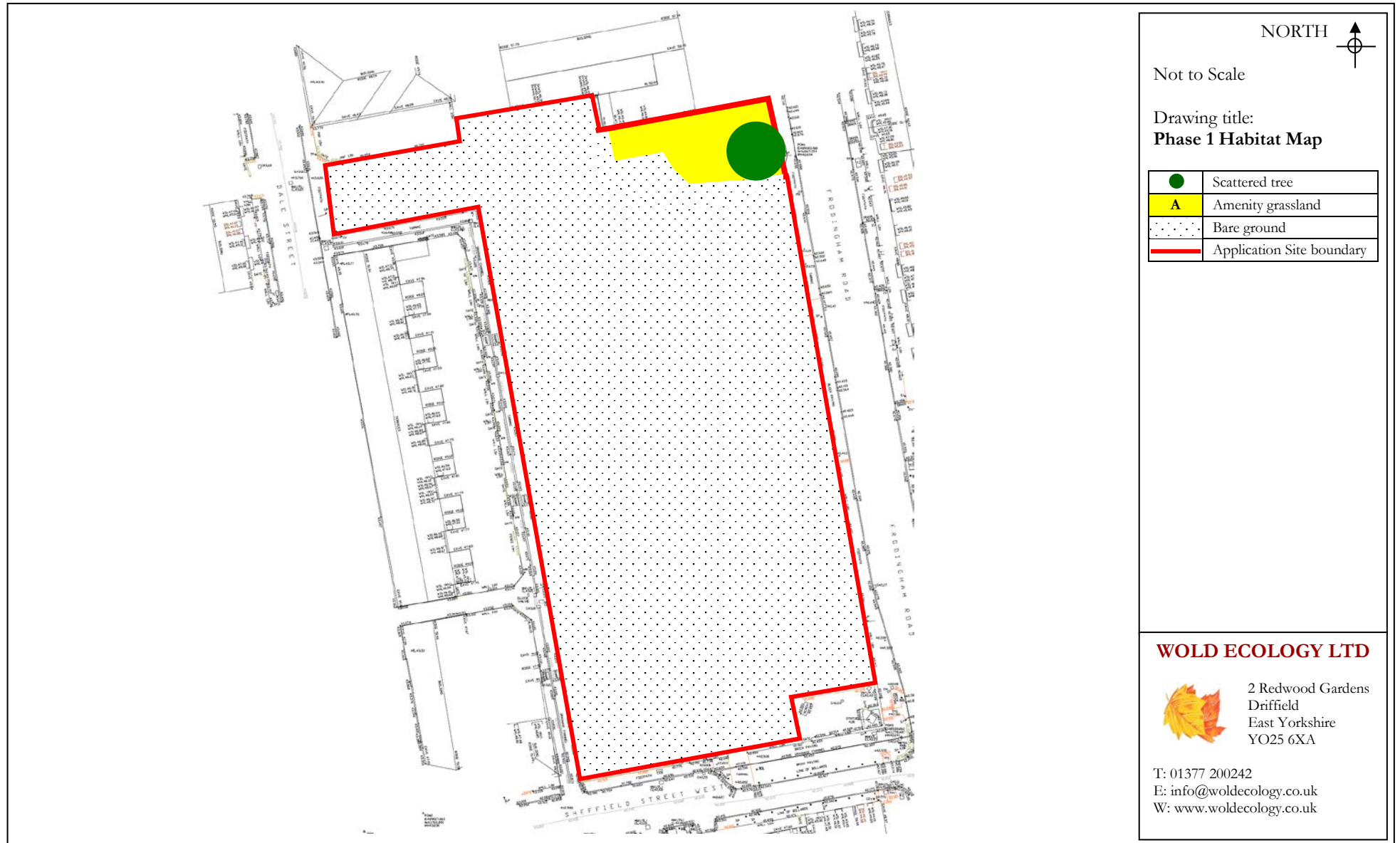
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


9.2 Appendix 2




NORTH 

Not to Scale

Drawing title:
Phase 1 Habitat Map

	Scattered tree
	Amenity grassland
	Bare ground
	Application Site boundary

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9.3 Appendix 3 – Summary of desktop study

Organisation.	Response Summary.	Date.
Natural England.	Local designations.	November 2017
Natural England.	UKBAP species and habitats within 2 km of the Application Site.	November 2017
Lincolnshire Environmental Records Centre	Species lists within 2 km of the Application Site.	November 2017
National Biodiversity Network.	Species lists within 2 km of the Application Site.	November 2017
www.magic.gov.uk	European Protected species licenses within 2km of the Application Site.	November 2017

9.4 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)
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 calamita</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 2010

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, 2010. 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.

9.5 Appendix 5 - Staff Profiles

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 Site of Special Scientific Interest (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 ensures compliance with the UK Woodland Assurance Standard and demonstrates that the woodlands are 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, North Cliff Marsh Flamborough and apple conservation. As a trustee of Drifffield’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 750 bat activity surveys since 2006 including writing and implementing Natural England bat development licenses. Successful projects have included the conservation of maternity roosts at Low Catton, Watton, Harwood Dale, Woodhall Spa and Myton on Swale.
- Phase 1 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/CODE 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, Stroma and Pell Frischman.

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 CODE 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.

9.6 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 2010, 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 and extended Phase 1 habitat survey 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 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.