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PRELIMINARY ECOLOGICAL APPRAISAL

Land to the North of Leicester Road, Markfield,
Leicestershire

Report Reference: BG22.188

June 2023



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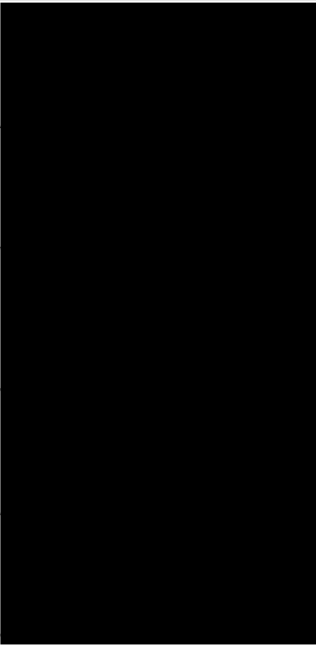


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Grid reference: SK 49472 10272

Contents

1	Summary.....	7
2	Introduction.....	9
3	Methodology.....	10
4	Site Context.....	14
5	Results	16
6	Evaluation.....	32
7	Recommendations	36
	Appendix 1. Phase 1 Habitat Plan	41
	Appendix 2. Phase 1 Target Notes	42
	Appendix 3. General References	44
	Appendix 4. Legislation, Policy and Guidance	45
	Appendix 5. Legislation, Guidance and Methodology for Preliminary Ecological Appraisals.....	46
	Appendix 6. Proposed Plans.....	51
	Appendix 7. Magic Data	52
	Appendix 8. Buildings and Trees with Bat Roost Suitability	57
	Appendix 9. Confidential Badger Records	61

1 Summary

- 1.1 Brindle & Green Ltd were commissioned by Charterpoint (LE67) Ltd. to undertake a Preliminary Ecological Appraisal incorporating a Phase 1 Habitat Survey and Protected Species Assessment at the Land North of Leicester Road, Markfield, Leicestershire. This report summarises the potential ecological constraints to the full planning application for site clearance to facilitate the development of a care home, car park, access track and associated soft landscaping. Design plans are provided within Appendix 6 of this report. The survey was carried out on the 13th April 2023.
- 1.2 The red line boundary is approximately 1.3ha in extent and comprises an area of semi-improved grassland bordered by species rich native hedgerows along the southern and north-western boundaries with broadleaved woodland forming the north-eastern boundary. Additionally, scrub, scattered trees, a shallow flowing stream and two buildings were identified on site. The value of the habitats on site is to be determined following further survey work.
- 1.3 The habitats described within this report have the potential to support protected and/or notable species. As such, this report outlines important measures to protect species during site clearance, and recommendations to improve the biodiversity status of the site post development.
- 1.4 A full description of the recommendations can be found within Chapter 7. The table below is a summary of the ecological issues recommended for further consideration as a result of our initial investigations:

Ecological Consideration	Recommendations (e.g. further survey, mitigation)	Timing
Habitats	Retention of hedgerows is recommended where possible. The on-site stream should be retained and safeguarded during construction through a CEMP. Grassland should be subject to an NVC survey to determine if it meets Local Wildlife Site grassland criteria, outlined in Chapter 7. The NVC will inform a Biodiversity Impact Assessment to determine baseline habitat unit, and extent of units required for no net-loss and net-gain.	Design phase Secured via planning condition 2x visits, mid-May to August

Ecological Consideration	Recommendations (e.g. further survey, mitigation)	Timing
Breeding birds	Works should be sympathetic to this group of species, with vegetation clearance undertaken following Reasonable Avoidance Measures (RAMS) outlined in chapter 7.	During Site Clearance (Optimal timing between October -March outside of breeding bird season)
Foraging and commuting bats	Sensitive lighting scheme and enhancement recommendations outlined in Chapter 7. Full suite of bat activity surveys in line with 'Low' suitability habitat including transects and static detector deployment.	During and post construction. Transect /spot count/ timed search survey. One survey visit per season (Spring, Summer and Autumn) AND Static automated surveys: One location per transect, over a five-night period, per season (April to October)
Roosting bats	Two trees on site were considered to provide low suitability for roosting bats and one tree provided moderate suitability. These should be retained where possible. If they are to be removed the following will be required: Low suitability trees A watching brief by an appropriately experienced ecologist should be completed during the soft felling or pruning of any trees identified as having low suitability to support roosting bats. Moderate suitability trees Further surveys will be required on the Moderate suitability trees prior to removal.	Design phase. At the time of soft felling or pruning, if required. Two surveys between May-September
Badgers	Full Badger survey incorporating a detailed walkover and use camera traps (if required), outlined in Chapter 7.	Year round.
Reptiles	Suitable habitat including tussocky grassland identified on site. Full presence/absence surveys outlined in Chapter 7.	Seven visits in suitable weather conditions Timing: March – September
Hedgehog	Reasonable Avoidance Measures are recommended during construction phase, outlined in Chapter 7.	During construction.

2 Introduction

- 2.1 The purpose of this assessment was to provide a Preliminary Ecological Appraisal of the site incorporating a Phase 1 Habitat Survey and Protected Species Assessment to establish the likelihood of the site supporting protected species. The survey provides detail on the need for any additional, more detailed protected species surveys, likely mitigation and any opportunities for enhancement.
- 2.2 The red line boundary is approximately 1.3 ha in extent and comprises a large area of semi-improved grassland bordered by species rich native hedgerows and broadleaved woodland. The site is located within the village of Markfield, north-west Leicestershire. The site is bordered by Leicester Road and residential development along the southern boundary. The A50 bounds the site to the north and acts as a barrier to terrestrial dispersal to extensive open greenspace, agricultural land and deciduous woodland beyond. The site is the subject of a full planning application for site clearance to facilitate the development of a care home, car park, access track and associated soft landscaping. Design plans are provided within Appendix 6 of this report.
- 2.3 The legislation relevant to protected species within the United Kingdom is summarised within Appendix 4.
- 2.4 Results and recommendations contained within this report have been prepared by an experienced ecologist and are therefore the view of Brindle & Green Limited. The survey is based on information provided by our client, the development proposals, results of the desk study and our survey of the site. This report pertains to this information only.

3 Methodology

3.1 Desk Study

Table 1 below lists organisations and/or resources used as part of the desk study process. Data regarding any known statutory or non-statutory sites, in addition to any records for protected species, were requested from the following sources:

Table 1. Ecological Data Resources

Consultant	Requested Data	Search Radius	Date Requested
Local Ecological Records Centre Leicestershire and Rutland Environmental Records Centre	Protected and notable species records Local, National and International Site Designations	2km	26/04/2023
MAGIC Maps	National and International Site Designations Granted EPS Development Licences	2km	24/04/2023

3.2 Surveyors

3.2.1 The survey was carried out by Victoria Halford BSc (Hons), Natural England Great Crested Newt Licence (2022-10210-CL08-GCN), Consultant Ecologist and Jade Bateman MSc (Hons), QCIEEM, Natural England Bat Licence Class 1 (2023-11128-CL17-BAT), Natural England Great Crested Newt Licence (2022-10204-CL08-GCN), Assistant Ecologist.

3.2.2 The survey was overseen by Lucinda Sweet PhD, MCIEEM, Natural England Bat Licence Class 2 (2019-39122-CLS-CLS), Great Crested Newt licence (2016-22852-CLS-CLS), Director.

3.3 Survey Conditions

The survey was undertaken at 16:00 on the 13th April 2023.

The outside temperature was recorded as 11°C, with heavy rain, hail showers, cloudy conditions, and 8/8 cloud cover.

3.4 Extended Phase 1 Habitat Survey

- 3.4.1 A Phase 1 habitat survey was undertaken following survey guidance (JNCC 2007) to establish the presence and distribution of habitat types within the site and potential ecological constraints to development. A Phase 1 Habitat Map was produced (Appendix 1) and where additional details were required Target Notes have been provided (Appendix 2). A plant species list (Appendix 2) summarising all plants identified on site was produced during the survey and all scientific nomenclature was produced according to Stace (2010).
- 3.4.2 This survey was extended to note the potential for habitats on site to support protected and/or notable species and for evidence of any such species. The habitats on site were assessed for their suitability to support protected species in relation to the habitat type found at the site. Any incidental sightings or field signs were noted at the time of survey. Where evidence of, or the confirmed presence of a protected species was identified, further species-specific surveys may be recommended to ensure that the presence or otherwise of a legally protected species is fully considered prior to the determination of any planning approval or to guide an EPS development licence.
- 3.4.3 Hedgerows on site were assessed following the Hedgerow Survey Handbook (DEFRA 2007) and defined as species-rich if the structural species making up a surveyed 30m section of hedgerow included at least four native woody species. Results were compiled and assessed against qualifying criteria within the Hedgerow Regulations (1997) and also the UK Biodiversity Action Plan / NERC Act 2006.
- 3.4.4 Legislation, guidance and methodology for species relevant to this site are presented in full within Appendices 4 and 5 of this report.
- 3.4.5 **Site Evaluation**
- Following the ecological appraisal, the site was classified into one of six groups (Table 2), to indicate whether the site is considered to hold ecological value on a local, national or international scale. This evaluation is intended as a guide and only targeted survey work can establish the significance of protected species populations onsite.

Table 2. Definitions of each of the six evaluation brackets, indicating the importance of each habitat type and an example of their possible habitat status. (Table constructed following The CIEEM EcIA Guidelines, Terrestrial, Freshwater and Coastal (2016) pages 16-17).

Evaluation Value	Comparable example
International	An internationally designated site or candidate site, including habitat or species included within Special Protection Areas (SPA) / Special Areas of Conservation (SAC), Ramsar Sites, listed under Annex 1 of the Habitats Directive.
National	Sites designated at UK level, e.g. Sites of Special Scientific Interest (SSSI), supporting species considered nationally threatened or rare. A regularly occurring regionally or county significant population/number of any nationally important species A feature identified as of critical importance within Section 41 of the NERC Act (2006).
Regional	Key Habitat type included within the National Biodiversity Action Plan (BAP) /NERC Habitat of Principle Importance (HPI). A regularly occurring, locally significant number of a regionally important species.
County	Designated sites, such as Sites of Biological Importance (SBIs) or viable habitat / species populations of value at a county level (LBAP).
District	District level designated sites, such as Local Wildlife Sites (LWS) or habitats / species populations of value at a district (Which have features qualifying for LWS status). Sites/features that are scarce within the district or which appreciably enrich the district habitat resource.
Local / Site	Habitats or species populations of value in a local (i.e. within ~ 5km of the site) context. Habitats of poor to moderate biological diversity e.g. established conifer plantations, species poor hedgerows and un-intensively managed grassland which supports species which are common to the local area and whose loss can be easily mitigated.

3.5 Limitations

3.5.1 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. The protected and notable species assessment provides a preliminary view of the likelihood of these species occurring on site, based upon the suitability of the habitats, known distribution of the species in the local area and any direct evidence on site. It should not be taken as providing a full and definitive survey of any protected species group.

3.5.2 The assessment was undertaken outside of the optimal survey period for phase 1 survey. Certain habitat types such as woodland and scrub can be surveyed at any time of the year where the species that they comprise vary very little. Where habitats are more complex and support species with different growing seasons, such as good quality semi-improved neutral grassland, they may be recommended for further, more detailed assessments at the appropriate time of the year. Further survey work comprising a National Vegetation Classification (NVC) survey will be carried out during peak season in order to overcome this limitation.

3.6 Report Lifespan

Given the transient nature of the subject, we would consider the survey results contained to be accurate for 2 years.

4 Site Context

4.1 Site Description

The application site can be found at SK 49472 10272, positioned to the north of Markfield village, Leicestershire. The site comprises a large field supporting semi-improved grassland and two disused stable buildings, bound by species rich native hedgerows and broadleaved deciduous woodland on the northern boundary. Beyond the belt of woodland lies the A50, which forms a barrier to terrestrial species dispersal between the wider landscape, supporting arable land, mature hedgerows and parcels of woodland, and the onsite habitats.

Using OS Mapping, a single pond was identified within the application site (Figure 1). However, during the site visit was confirmed as a slow flowing, shallow stream. The stream flows off-site, beneath the A50, considered to offer restricted connectivity for species dispersal.

The north-western site boundary abuts pastoral grazing land bound by mature hedgerows and treelines, considered to have good connectivity to the onsite habitats. Markfield Cemetery lies approx. 30m south of the site, beyond Leicester Road, supporting large mature trees and grassland habitats, considered to have good connectivity to the on-site habitats.

4.2 Zone of Influence

The zone of influence describes the geographic extent of potential impacts of a proposed development. The small scale of the proposed development reduces the likelihood of impact to the surrounding area, however suitable connective vegetation could influence the presence of protected species within the application boundary. The zone of influence was considered to be 500 metres from the application boundary for amphibians and reptiles, 30 metres for terrestrial mammals such as badgers, and within the area of impact for breeding birds and bats.

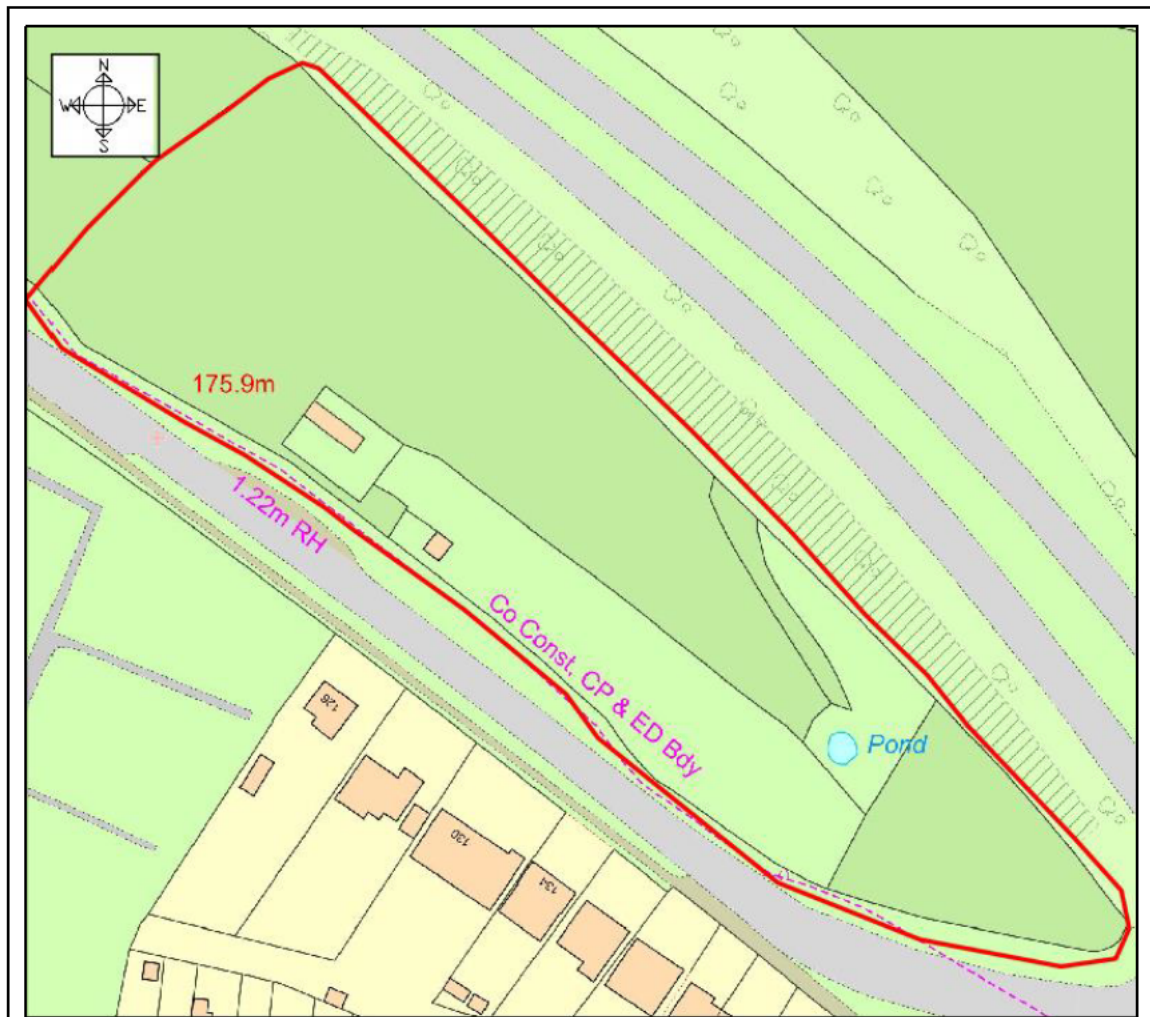


Figure 1. OS map of the project site and surrounding area.

Red line boundary depicts application site.

5 Results

5.1 Desk Study

5.1.1 Designated Sites

The site was subjected to a search for designated sites within a 2km radius of the site using data supplied by the Local Records Centre (Leicestershire and Rutland Environmental Records Centre (LRERC)) and the online desk-based resource MAGIC.

5.1.2 The data supplied by LRERC was received on the 05/05/2023 and is summarised within Table 3. The search revealed two Statutory and 50 Non-statutory sites within a 2km radius of the site. The site also lies within the Impact Risk Zone (IRZ) for Ulverscroft Valley SSSI. The five closest non-statutory sites are detailed below in Table 3.

5.1.3 A search of the online resource Magic Maps found no additional sites with Statutory designations within the 2km radius search.

Table 3. Summary of Designated Sites within a 2km radius of the application site

Site Name	Grid Ref	Status	Reason for Designation	Distance from site
Ulverscroft Valley	SK 497 123	Site of Special Scientific Interest (SSSI)	Designated for its grasslands, heath, woodland and wetlands.	0.88km NE
Cliffe Hill Quarry	SK 474 107	SSSI	Designated for its geological features.	1.6km W
Cover Cloud Field	SK497104	Local Wildlife Site (LWS)	Designated for its grasslands.	0.09km NE
Home Farm	SK496110	LWS	Designated for its grasslands.	0.11km N
Cover Cloud Wood	SK498102	LWS	Designated for its ancient semi-natural woodland.	0.16km E
Field north of Leicester Road	SK491104	LWS	Designated for its wet grasslands.	0.29km W
Field south of Ulverscroft Wood	SK490108	LWS	Designated for its mesotrophic grassland with spring-fed flush.	0.53km NW

5.1.4 Protected Species Assessment

5.1.4.1 Data supplied by LRERC also included records of protected species. Full datasets are available upon request. A summary of the closest or most relevant records can be seen in Table 4 below.

5.1.4.2 Magic maps revealed five granted EPS licences within 2km of the site for the roosts of common pipistrelle (*Pipistrellus pipistrellus*), brown long-eared bat (*Plecotus auritus*), whiskered bat (*Myotis mystacinus*), and Natterer's bat (*Myotis nattereri*). Licence 2015-15751-EPS-MIT had an additional four extensions. Further details of these licences can be found in Table 5.

Table 4. Summary of relevant protected and priority species records within the past 10 years.

Species	Grid ref.	Date	Description
Birds			
Fieldfare (<i>Turdus pilaris</i>)	SK493101	2020	Four records, the closest 0.17km from the site.
Red kite (<i>Milvus milvus</i>)	SK489100	2021	Four records, the closest 0.57km from the site.
Redwing (<i>Turdus iliacus</i>)	SK490113	2020	Seven records, the closest 1.16km from the site.
Bats			
Brown long-eared bat (<i>Plecotus auritus</i>)	SK4992510380	2019	48 records, the closest 0.47km from the site.
Common pipistrelle (<i>Pipistrellus pipistrellus</i>)	SK4978710111	2018	667 records, the closest 0.35km from the site.
Daubenton's bat (<i>Myotis daubentonii</i>)	SK480101	2019	Eight records, the closest 1.43km from the site.
Leisler's bat (<i>Nyctalus leisleri</i>)	SK5022310940	2019	24 records, the closest 1.01km from the site.
Nathusius's pipistrelle (<i>Pipistrellus nathusii</i>)	SK5024810964	2020	Seven records, the closest 1.04km from the site.
Natterer's bat (<i>Myotis nattereri</i>)	SK496117	2019	Two records, the closest 1.49km from the site.
Noctule (<i>Nyctalus noctula</i>)	SK49951026	2019	55 records, the closest 0.48km from the site.
Serotine (<i>Eptesicus serotinus</i>)	SK479103	2020	Three records, the closest 1.53km from the site.
Soprano pipistrelle (<i>Pipistrellus pygmaeus</i>)	SK4992510380	2020	99 records, the closest 0.47km from the site.
Whiskered bat (<i>Myotis mystacinus</i>)	SK480101	2019	Three records, the closest 1.43km from the site.
Other Mammals			
Badger (<i>Meles meles</i>)	Confidential		
Otter (<i>Lutra lutra</i>)	SK491113	2020	Three records, the closest 1.13km from the site.

Species	Grid ref.	Date	Description
Reptiles			
Common lizard (<i>Zootoca vivipara</i>)	SK496117	2022	Four records, the closest 1.49km from the site.
Slow worm (<i>Anguis fragilis</i>)	SK497117	2017	Seven records, the closest 1.51km from the site.
Amphibians			
Great crested newt (<i>Triturus cristatus</i>)	SK496092	2015	20 records, the closest 1.04km from the site.
Palmate newt (<i>Lissotriton helveticus</i>)	SK499108	2015	Four records, the closest 0.75km from the site.
Crustacean			
White-clawed crayfish (<i>Austropotamobius pallipes</i>)	SK485331029 7	2021	Six records, the closest 0.94km from the site.

Table 5. Summary of granted EPS licences within 2km of the application site.

Species	Licence number & Description	Approx. distance from site	Licence start/finish date
Common pipistrelle (<i>Pipistrellus pipistrellus</i>)	2015-7909-EPS-MIT – Allows the destruction of a resting place.	0.85km NE	2015 - 2020
Common pipistrelle, Brown long-eared bat (<i>Plecotus auritus</i>)	2014-4859-EPS-MIT – Allows the damage and destruction of both a breeding site and a resting place.	1.34km N	2014 - 2016
Common pipistrelle, Brown long-eared bat, Whiskered bat (<i>Myotis mystacinus</i>)	EPSM2012-5160 – Allows the destruction of a breeding site and the destruction of a resting place.	1.34km N	2013 - 2018
Common pipistrelle, Brown long-eared bat, Natterer's bat (<i>Myotis nattereri</i>)	2015-14867-EPS-MIT – Specific details not provided.	1.74km NE	2015 - 2016
Common pipistrelle, Brown long-eared bat, Natterer's bat	2015-15751-EPS-MIT – Allows the damage and destruction of a resting place and the destruction of a breeding site.	1.94km N	2015 - 2020
Common pipistrelle, Brown long-eared bat, Natterer's bat	2015-15751-EPS-MIT-1 – Allows the damage and destruction of a resting place and the destruction of a breeding site.	1.94km N	2016 - 2020
Common pipistrelle, Brown long-eared bat, Natterer's bat	2015-15751-EPS-MIT-2 – Allows the damage and destruction of a resting place and the destruction of a breeding site.	1.94km N	2017 - 2020
Common pipistrelle, Brown long-eared bat, Natterer's bat	2015-15751-EPS-MIT-3 – Allows the damage and destruction of a resting place and the destruction of a breeding site.	1.94km N	2018 - 2020
Common pipistrelle, Brown long-eared bat, Natterer's bat	2015-15751-EPS-MIT-4 – Allows the damage and destruction of a resting place and the destruction of a breeding site.	1.94km N	2019 - 2021

5.2 Habitats

5.2.1 The habitat types recorded on site are summarised below, and the frequency and distribution of habitat types is displayed within a Phase 1 Habitat Survey Map (Appendix 1 and 2).

5.2.2 Table 6 provides a list of habitat types present on site along with their inclusion (or otherwise) as a National and / or Local Habitat of Principal Importance (HPI) (Previously referred to as Biodiversity Action Plan (BAP)).

Table 6. JNCC Habitat Types found on site and inclusion within UK BAP/HPI habitats.

Habitat Type	N HPI	L HPI	N/A
Semi-improved neutral grassland			*
Native species-rich hedgerows	✓	✓	
Broad-leaved woodland		✓	
Dense scrub			✓
Scattered trees			✓
Stream		✓	
Bare ground			✓
Buildings			✓

* Habitat value to be determined following further survey work

5.2.3 Sem-improved Neutral Grassland

The site was dominated by semi-improved neutral grassland covering 1.05ha of the redline boundary (Figure 2). The grassland had been intensely grazed by horses until 2021 when grazing ceased. The sward height was approx. 50cm on average and was dominated by Yorkshire fog (*Holcus lanatus*), Cock's foot (*Dactylus glomerata*), and perennial rye (*Lolium perenne*). Abundant grassland species included Fescue sp. (*Festuca* sp.), crested dog's tail (*Cynosurus cristatus*), occasional species recorded included timothy (*Phleum pratense*), false oat grass (*Arrhenatherum elatius*), and sweet vernal (*Arrhenatherum odoratum*). Abundant herb species including white clover (*Trifolium repens*), broad-leaved plantain (*Plantago major*), creeping buttercup (*Ranunculus repens*), meadow buttercup (*Ranunculus acris*), occasional sorrel (*Rumex acetosa*), knapweed (*Centaurea nigra*), soft rush (*Juncus effusus*), bird's-foot trefoil (*Lotus corniculatus*), silverweed (*Potentilla anserina*), creeping cinquefoil (*Potentilla reptans*), burnet (*Sanguisorba* sp.) and hawkweed sp. (*Hieracium* sp.). There was an average of nine species per m². Ruderal species were also recorded within the sward, including abundant dandelion (*Taraxacum* sp.), common nettle (*Urtica dioica*), cow parsley (*Anthriscus sylvestris*).



Figure 2. Semi-improved neutral grassland that dominates the site.

5.2.4 Native Species-Rich Hedgerows

The southern and north-western boundaries of the site were denoted by mature hedgerows (Figure 3). Both hedgerows were of similar species composition, with species present including hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), hazel (*Corylus avellana*), field maple (*Acer campestre*), ash (*Fraxinus excelsior*), holly (*Ilex aquifolium*), rose (*Rosa sp.*), oak (*Quercus sp.*). Ground flora recorded include common nettle (*Urtica dioica*), broad leaved dock (*Rumex obtusifolius*), cow parsley, cleavers (*Galium aparine*), lords and ladies (*Arum maculatum*), creeping thistle (*Cirsium arvense*), and ribwort plantain (*Plantago lanceolata*). The hedgerows had no signs of recent management and were approx. 4-6m tall x 2-3m wide. The hedgerow on the southern boundary was situated above a drainage ditch that ran along the length of the boundary. The ditch was less than 1m deep and approx. 1m wide and contained water at the time of survey, approx. 10cm deep. The ditch was supported vegetation identified as part of the ground flora associated with the hedgerow.

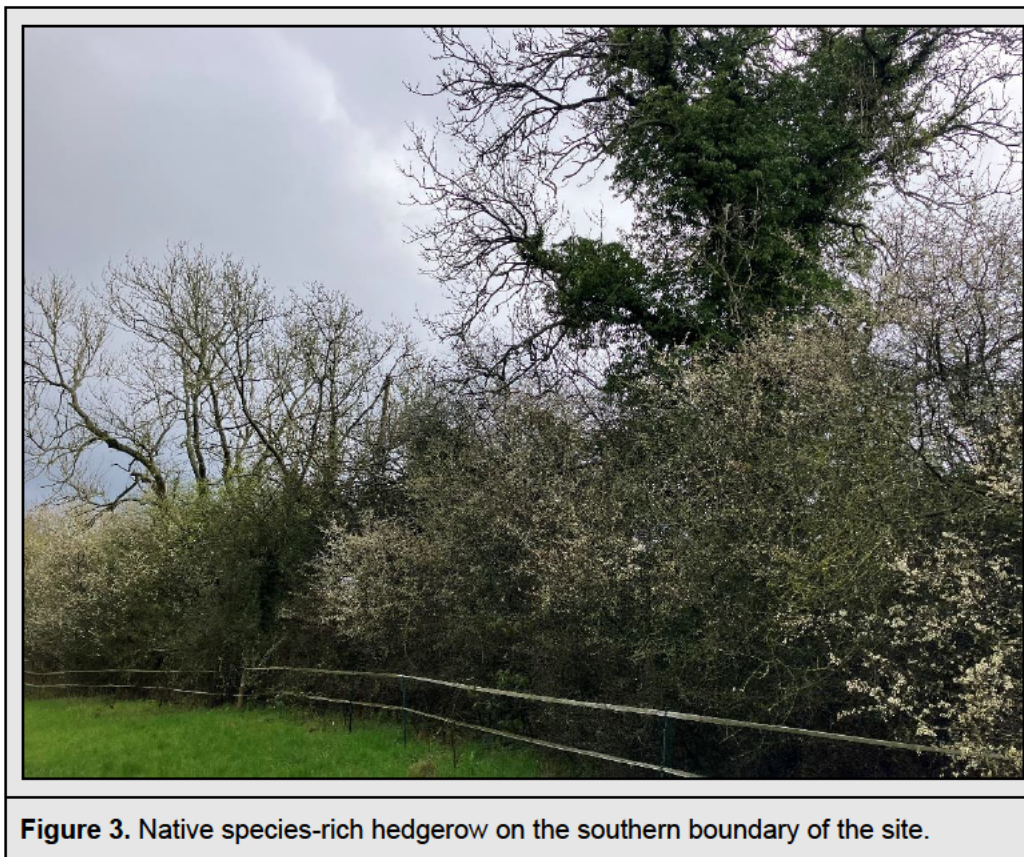


Figure 3. Native species-rich hedgerow on the southern boundary of the site.

5.2.5 Broad-leaved woodland

The north-eastern boundary of the site, approx. 0.05ha, supported a woodland belt as the vegetation cover was approx. 10m in width (Figure 4). Species composition included hawthorn, rose sp., ash, oak, holly and field maple. Ground flora species included species from the neighbouring grassland, as well as broad leaved dock (*Rumex obtusifolius*) and bramble (*Rubus fruticosus*).

5.2.6 Dense Scrub

Areas of dense scrub were recorded within the site, largely in the corners of the site, adjacent to the hedgerows. An area of scrub was also recorded in the centre of the site, approx. 0.08ha, surrounding the stream (Figure 5). The scrub was dominated by bramble, common nettle, and broad-leaved dock, with occasional blackthorn and elder.

5.2.7 Bare Ground

Areas of bare ground were identified around Building 2. The areas had been poached by horses and showed signs of being recolonised by neighbouring grassland species.



Figure 4. Area of broadleaved woodland on the northern boundary of the site.



Figure 5. Area of dense scrub surrounding the stream.

5.2.8 Scattered Trees

A single mature oak tree was present adjacent to the stream (Figure 6). The tree was multi-stemmed and the canopy over shaded the stream.



Figure 6. Mature oak tree adjacent to the stream.

5.2.9 Buildings

The site supported two buildings, both disused stables (Figure 7). Building 1 was a timber stable supporting a pitched corrugated asbestos sheet roof. Building 2 was a single skin timber stable, supporting a mono-pitched roof covered in a vinyl-roofing membrane, lined with woodchip panels. Detailed descriptions and suitability to support protected species can be found in section 5.3.

5.2.10 Stream

A shallow flowing stream was recorded by the mature oak tree in the centre of the site. The stream flowed north through the site and out of the site via a culvert under the A50 (Figure 8). The stream was approximately 20cm deep with a sand/silt substrate, it did not support submerged vegetation and the banks were colonised by scrub.



Figure 7a. Building 1 on site.



Figure 7b. Building 2 on site.



Figure 8. Shallow stream running through the centre of the site.

5.2.11 Invasive Weeds Assessment

An assessment of the site was made to establish the presence of invasive weeds included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). No recordings of invasive weed species were found within, or adjacent to the application area.

5.3 Fauna

5.3.1 Breeding Birds

5.3.1.1 The survey was undertaken during the active breeding bird season. Scrub, woodland, hedgerows, scattered trees and grassland on site provide suitable nesting habitat for a number of common bird species. Great tit (*Parus major*) was recorded on site during the survey.

5.3.1.2 An active swallow (*Hirundo rustica*) nest was recorded in Building 2 on the timber frame below the roof top on the southern aspect. No current evidence of breeding birds was recorded at the time of the survey in Building 1.

5.3.1.3 Based on a review of the habitat types on site and the list of bird species recorded within the data-search and onsite during the survey, the site is considered to support an assemblage of bird species including some species considered to be of high conservation concern that are either legally protected or UK BAP species, such as house sparrow and bullfinch.

5.3.2 Bats

The data search showed five records of granted bat EPSL within 2km of the site, the closest 0.85km north-east. Over 900 records of bat foraging and commuting activity were returned in the data search, with the closest record located approximately 0.35km from the site.

5.3.2.1 Roosting Bats

The site supported a broadleaved woodland boundary along the northern boundary of the site and a mature oak tree was located in the centre of the site. Visible trees were assessed and categorised based upon Bat Conservation Trust guidance (see Appendix 5), two trees within the site boundary were assessed to have low suitability to support roosting bats and one tree was assessed to have moderate suitability to support roosting bats. Potential roosting features within the trees assessed as having low and moderate suitability to support roosting bats are summarised below (Table 7), and associated figures can be found with Appendix 8.

5.3.2.2 Both Building 1 and 2 were assessed to have negligible suitability to support roosting bats. Both external and internal features offered negligible features to

support roosting bats. The main structural features of the building, and their lack of suitability for supporting roosting bats are summarised below (Table 7), and associated figures can be found with Appendix 8.

Table 7. Summary of Bat Roost potential and evidence found within each of the buildings/structures on site (Supporting Figures within Appendix 8).

High Moderate Low Negligible None				
Building/ Tree Number	Description	Bat evidence / Potential Roosting Features (PRFs)		Roost Suitability
B1	Single skin timber stable supporting a pitched corrugated asbestos sheet roof. The inside of the stable is open with timber support beams. No roof void is present. The building is in moderate condition.	• No PRF'S identified at the time of survey. No evidence of previous bat activity was recorded during the assessment.		Negligible
B2	Single skin timber stable, supporting a mono-pitched roof covered in a vinyl-roofing membrane, lined with woodchip panels. No roof void is present and eastern aspect is open.	• No PRF'S identified at the time of survey. No evidence of previous bat activity was recorded during the assessment.		Negligible
T1	Multi-stemmed mature oak tree adjacent to the stream, height approx. 6m, DBH 1.5m.	• Knot hole approx. 20cm long at 3m high on south facing branch may provide suitable day roosting features for individual bats. • Lifted bark at approx. 3m high on southern aspect, may provide limited roosting opportunities for an individual bat. • Large open cavity in trunk facing upwards on northern aspect, approx. 30cm in width at 1m high. Provides limited suitability for roosting bats as does not offer protection or shelter from the weather. No evidence of previous bat activity was recorded during the assessment.		Low
T2	Mature oak tree within hedgerow on the north-western site boundary, height approx. 6m, DBH 1m.	• Lifted bark at approx. 3m high on eastern aspect, may provide limited roosting opportunities for an individual bat. • Knot hole approx. 15cm wide at 3m high on south facing branch may provide suitable day roosting features for individual bats.		Low

Building/ Tree Number	Description	Bat evidence / Potential Roosting Features (PRFs)	Roost Suitability
		• No evidence of previous bat activity was recorded during the assessment.	
T3	Mature ash tree within hedgerow on the north-western site boundary. Approx. height 6m, DBH 1m.	• Two large trunk scars on south and eastern aspects at 4m high. May provide day or transitional roosting opportunities for a small number of bats. • No evidence of previous bat activity was recorded during the assessment.	Moderate

5.3.2.2 Foraging and Commuting Bats

The site supported vegetative features considered suitable to support commuting and foraging bats. The scattered trees, woodland, scrub, hedgerows and stream within the site boundary provide valuable resources for foraging bats. Linear features such as the hedgerows and woodland edge provide connective habitat across the site, providing commuting pathways to the wider environment. The site is considered to provide 'Moderate' suitability habitat for foraging and commuting bats, due linear features onsite connecting areas of woodland to the north of the site and agricultural land beyond, however the residential development to the south of the site does not provide optimal habitat for foraging and commuting bats.

5.3.3 Badgers (*Meles meles*)

5.3.3.1 Records relating to certain protected species including badger sett locations are sensitive in nature, and due to the risk of public interference are kept confidential. Details of results relating to badger have not been included in this report due to their sensitive nature but will be submitted within a confidential appendix to support the planning submission (Appendix 9).

5.3.3.2 No evidence of badger setts, or activity such as snuffle holes and latrines were found during the ecological appraisal of the site. Mammal runs were identified on site however these could not be confirmed as badger. The site supported

habitat features such as dense scrub and woodland which were considered conducive to supporting badger populations. The extent of the site, and the location with agricultural land and open greenspace to the north of the site suggest that this transient species could forage or commute within the surrounding environment and the site has suitability to support a sett. However, the A50 north of the site provides a barrier to their dispersal on to the site from the wider suitable habitat.

5.3.4 **Otter** (*Lutra lutra*) and **Water Vole** (*Arvicola amphibius*)

Records of otter were returned during the data search over 1km from the site, however, no records of water vole were identified within the search radius. The stream within the site flows beneath the A50, and from a review of aerial mapping appears to connect to a network of ditches within the wider landscape. Despite this, it is considered that the habitats within the site offer very limited opportunities for otter and water vole. The stream is shallow and not considered to support populations of crayfish (see 5.3.5 below) or fish, both food sources for otter. The stream is considered to be susceptible to seasonally drying, and the shallow banks are considered sub-optimal for water vole, with limited opportunities for burrowing. Otter and water vole are therefore not considered to be present on site and are not considered further in this report.

5.3.5 **White-clawed Crayfish** (*Austropotamobius pallipes*)

The data search returned six records of white-clawed crayfish within 2km of the site. The stream within the site was considered to offer limited opportunities for this species such as pebbles, stones and tree roots overhanging the banks. The channels of the stream were sandy and dominated by bare ground. The depth of the flowing water reached a maximum depth of approx. 20cm, and the stream is considered to dry seasonally. It is considered unlikely that white-clawed crayfish would be present on site. This species is not considered further in this report.

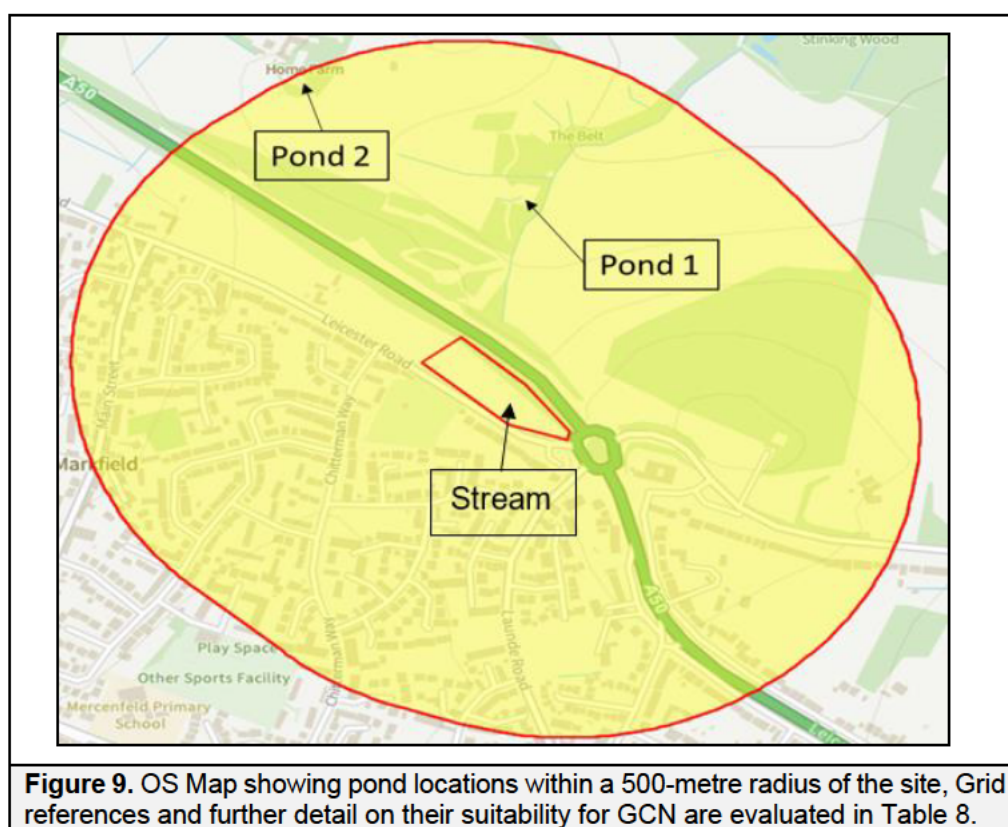
5.3.6 **Great Crested Newts** (*Triturus cristatus*)

The site supported a mixture of scrub, tussock grassland, and woodland which is considered suitable to support the terrestrial phase for this species. A pond was originally recorded on site during a site walkover undertaken in 2022, when access was limited due to dense overgrown scrub surrounding the waterbody. The pond is also shown on Ordnance Survey maps of the site and was

therefore assumed present at this time. Consequent access was not restricted during this PEA and the onsite pond has now been recorded as an outflow of a slow flowing stream and therefore is considered to be unsuitable for great crested newt (GCN). There were two ponds within 500 metres of the site (Figure 9). Habitat connectivity to these ponds from the site is restricted as they both lie north of the A5 which is considered a significant barrier to dispersal. The desk study showed records of GCN 1km to the south of the application site but did not reveal any records or surveys on ponds within 500m of the site. Offsite ponds were unable to be assessed and assigned a GCN Habitat Suitability Index (HSI) score (Oldham et al, 2000). Grid references of pond locations are displayed within Table 8 below.

Table 8. Pond Locations and HSI scores.

Pond No.	Grid Ref.	Habitat Suitability Index Score	Distance from Site
Stream	SK 49521 10231	N/A – flowing water.	Within application boundary
1	SK 49518 10598	N/A – no access, on private land.	265m N
2	SK 49188 10797	N/A – no access, on private land.	48m NW



5.3.7 Reptiles

No evidence of reptiles was recorded during the survey; however, the site supported a suitable habitat matrix to support reptiles such as grass snake (*Natrix helvetica*) and slow worm (*Anguis fragilis*). Records of slow worm and common lizard (*Zootoca vivipara*) were recorded during the desk study. The extensive grassland on site provided a variable sward structure supporting areas of rough tussock grassland and bare ground.

5.3.8 Mammal Species of Principle Importance

The NERC Act 2006, Section 41 highlights 17 species of principle importance within England. Although these species were not surveyed directly as a result of their distribution and habitat preferences, evidence for activity by these species was searched for during the initial survey.

Western European Hedgehog (*Erinaceus europaeus*)

While no evidence of this species was noted during the assessment, the grassland habitat within the application boundary were considered suitable for supporting foraging and commuting Western European hedgehog. Scrub and hedgerows also provided suitable cover for this species.

6 Evaluation

6.1 Development Proposals

The site is the subject of a full application for the development of a care home, car park, access road and associated soft landscaping. Design proposals for the site are presented in Appendix 6 of this report.

6.2 Desk Study Impacts

Two statutory designated sites were identified within 2km of the site. The site falls within an Impact Risk Zone (IRZ) for Ulverscroft Valley SSSI located approx. 0.9km northeast of the site. The IRZ pertains to residential proposals. As such, the Local Planning Authority should consult Natural England to determine if mitigation measures are required. The closest LWS is located 92m north of the site, on the other side of the A50 and is designated for its grassland habitats. Given the nature of the development and the barrier of the A50 the development is not considered likely to impact the LWS and therefore no further mitigation is required.

6.3 Habitats

The habitats on site have been evaluated as having site value in relation to the immediate surroundings and a regional context. The site was dominated by semi-improved neutral grassland, with areas of dense scrub, scattered trees, a flowing stream, broadleaved woodland and native species-rich hedgerows. The semi-improved neutral grassland displayed several indicator species listed under the Local Wildlife Site grassland criteria. As the initial survey was carried out outside the optimal season it is possible that further species may be present and further survey work is needed to evaluate the value of the habitat. The broadleaved woodland and stream are listed as a habitat of principal importance on a local scale and the native species-rich hedgerows are listed on both a local and national scale. Chapter 7 provides recommendations relating to the need for further survey to establish the value of habitats on site to ensure appropriate mitigation is provided.

6.4 Breeding Birds

- 6.4.1 All wild birds, their eggs and nests are protected under the Wildlife and Countryside Act 1981 (as amended) which makes it an offence to intentionally kill, injure, or take any wild bird whilst nesting, or take, damage or destroy the

nest of any such bird while in use or being built. In addition, species listed on Schedule 1 of the Wildlife and Countryside Act 1981 or their dependant young are afforded additional protection from disturbance whilst they are at their nests.

- 6.4.2 The hedgerows, scrub, grassland and scattered trees on site were considered to provide suitable nesting habitat for common and Schedule 1 bird species and have the potential to support populations of birds of local and national interest such as bullfinch and house sparrow. Additionally, a swallow nest was recorded in B2. In the absence of mitigation direct or indirect impacts on individual birds, their young, eggs and habitats could occur. Chapter 7 sets out important guidance on measures to avoid impacts on this species and measures to support its conservation status.

6.5 **Bats**

All bats in the United Kingdom and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2017 (as amended). It is an offence to damage or destroy any bat roost, intentionally or recklessly obstruct a bat roost, deliberately, intentionally or recklessly disturb a bat or intentionally kill, injure or take any bat.

6.5.1 *Roosting bats*

Two trees on site were of low suitability to support roosting and bats and one tree was assessed as having moderate suitability to support roosting bats. It is understood from the proposals that these trees are to be retained as part of the development scheme, and as such disturbance or injury to roosting bats, and the loss of suitable roosting habitat is considered unlikely. The recommendations section (Chapter 7) of this report sets out important guidance on measures to avoid impacts on this species and measures to support its conservation status.

- 6.5.2 The buildings (Buildings 1 and 2) were identified as having negligible suitability to support roosting bats as no PRFs were identified in either building. The proposed plans show the removal of both buildings to facilitate the development of the care home. No further survey work is required on the existing buildings within the site.

6.5.3 *Foraging and Commuting Bats*

The linear features provided by woodland edge, hedgerows and scattered trees could act as important commuting lines for bat species and are considered to hold 'Moderate' suitability. The removal of these features without an understanding of their significance could lead to the loss or disturbance of commuting and foraging habitat utilised by local bat populations, impacting their commuting behaviour. Given the scheme seeks to retain the majority of the linear features bounding the site, as well as the retention of the mature oak in the east of the site, it is considered proportionate to carry out survey work in line with 'Low' suitability habitat. This survey effort is anticipated to be sufficient to highlight important features within the site and guide mitigation, as required. Chapter 7 sets out important guidance relating to further survey work to understand the importance of the features and development of appropriate mitigation.

6.6 **Badgers**

Under the Protection of Badgers Act 1992, in England and Wales it is an offence to wilfully kill, injure, disturb or take any badger, or intentionally or recklessly damage, destroy, or obstruct access to any part of a badger sett. There was no evidence of badger activity within zone of influence, however the rural location of the site and data records suggest that badgers may be present in the wider environment and could forage and commute through the red line boundary on an intermittent basis. Chapter 7 provides recommendations relating to the need for further survey; aimed at clarifying the value of the habitats for badgers on site before assessing impact.

6.7 **Great Crested Newts**

Great crested newts and their eggs, breeding sites and resting places are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2017 (as amended). Two ponds were located within 500m of the site however both are located north of the site with the A50 acting as a barrier to terrestrial dispersal between the ponds and the site. The onsite stream is considered unsuitable for the aquatic phase of this species life cycle. It is therefore considered unlikely that GCN would present a constraint to the planning application, particularly given the increasingly low densities at which GCN are found at increased distances from

optimal habitat and breeding ponds and the presence of barriers to dispersal. GCN are not thought to be present within the redline boundary and as such are not considered further within this report. If any evidence of GCN presence is uncovered during development works, then works should cease and the advice of an ecologist sought.

6.8 Reptiles

Reptiles are protected under the Wildlife and Countryside Act 1981 (as amended) making it illegal to intentionally kill or injure reptiles. No evidence of reptiles was recorded during the survey; however, the site supported a suitable habitat matrix comprising a variable sward structure, and dense scrub and as such it is therefore likely that harm or injury could be sustained to this group of species during the pre-construction clearing of the site. Chapter 7 provides recommendations relating to the need for further survey; aimed at clarifying the value of the habitats for reptiles on site before assessing impact.

6.9 Mammal Species of Principle Importance

The habitats on site were considered conducive to supporting Western European hedgehog. No evidence of this species was recorded during the survey; however, the presence of this species foraging in the areas of grassland and scrub located within the application boundary could result in injury or death of this species of principle importance during clearance works. Chapter 7 provides recommendations aimed at safeguarding this species during ongoing development works.

7 Recommendations

The site should be the subject of further ecological survey works and consideration to produce an Ecological Impact Assessment, where the following indices should be assessed and evaluated further to establish the extent of impact to the ecological value of the application site.

This survey can be used to guide the Master Plan to ensure that mitigation is employed to retain and enhance local biodiversity. As with all development sites, efforts should be made to support National and Local Biodiversity Action Plans, and seek opportunities to incorporate ecological enhancement schemes within the proposed development. Such site enhancements are viewed positively in light of the NPPF (2021) which seeks biodiversity enhancements and net gain through the planning process.

7.1 Habitats

Habitats / Botanical	Timing
Recommendations	
Retention of hedgerows to maintain connective corridors for biodiversity where possible. Replacement hedgerows should be species rich and comprise native and locally prevalent species.	Design phase.
Retention of the stream and safeguarding during construction with a buffer zone as detailed in a construction environmental management plan (CEMP).	
Biodiversity Impact Assessment recommended to inform requirements needed for net gain. Biodiversity Net Gain metric should be used to inform site layout to avoid impacts/clearance of areas of higher biodiversity value and devise appropriate compensation/habitat management to pursue a measurable overall biodiversity net gain.	
The semi-improved neutral grassland should be subject to an NVC survey, conducted during the optimum survey period for grasslands, to determine if it meets Local Wildlife Site grassland criteria.	2x visits during optimal survey period for grassland (mid-May – August)
Enhancement Prescriptions	
Design proposals may require amendment following the results of further survey work. Enhancements such as retaining grassland, transplanting or reseedling of	

areas can be advised and directed following further survey.	
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7.2 Breeding Birds

Breeding Birds	Timing
Recommendations	
Retention of hedgerows and trees where possible. The hedgerows, scrub and trees on site provide suitable habitat for breeding birds and a swallow nest was recorded within Building 2. Building 1 is considered to offer suitable habitat for nesting birds. Given their protection, development must be sympathetic to the value of this habitat and potential impacts on breeding birds, their eggs, nests and young. The breeding bird season is generally accepted as being between March and September. Consideration and implementation must be given to the following options most appropriate to the scheme. a) Undertake clearance between the months of October and February where possible. b) Clearance between the months of March and September should be subjected to a search for active birds' nests 24 hours prior to commencement of works by a suitably qualified ecologist.	During Design Works outside of the breeding season (Oct-Feb) If unachievable, follow steps in recommendation.
Enhancement Prescriptions	
4 x Habitat integrated small bird boxes (or similar approved) to be incorporated into the design of the development. Boxes to be positioned at a height of at least 4m on a north-eastern elevation with an unobstructed flight path.	During the design phase.

7.3 Roosting Bats

Roosting Bats	Timing
Recommendations	
Three trees on site with suitability to support roosting bats - two trees with low suitability and one tree with moderate suitability. These are to be retained however if removed the following will be required:	

Low suitability trees A watching brief by an appropriately experienced ecologist should be completed during the soft felling or pruning of any trees identified as having low suitability to support roosting bats, if required. Moderate suitability trees Further presence/absence surveys will be required on trees with moderate suitability to support roosting bats prior to removal.	At the time of soft felling or pruning, if required. Two nocturnal surveys between May and September
Enhancement Prescriptions	
4 x Habitat built in bat boxes 001 (or similar approved) should be integrated into the external walls of the proposed dwellings. Boxes should be positioned at a height of at least 4m on a south-western facing elevation with an unobstructed flight path.	

7.4 Foraging & Commuting Bats

Foraging & Commuting Bats	Timing
Recommendations	
The site possesses a range of features, notably woodland edge, scrub, and a stream that have the potential to act as important flight paths and foraging resources for local bat populations. It is recommended that areas indicated for removal or disturbance during the redevelopment works are subjected to a bat activity surveys in line with 'Low' suitability habitat to establish the significance of these commuting routes on site. Sensitive lighting schedule will be implemented to reduce any construction associated impacts to commuting and foraging routes along the site boundaries. • Where possible, working hours should be conducted between the hours of 8:00am and 18:00pm, to avoid times in which bats are active. • If night works are required at any stage, lighting should be faced down and directed away from the hedgerows and scattered trees.	Transect /spot count/ timed search survey. One survey visit per season (Spring, Summer and Autumn) AND Static automated surveys: One location per transect, over a five-night period, per season (April to October) All surveys to be completed prior to determination. During and post-construction.

• Sodium lamps instead of Mercury or metal halide are recommended and white or blue light spectrums should not be used. • All pre and post construction lighting should have a maximum light spill over of less than 1lux onto suitable habitats.	
Enhancement Prescriptions	
Design proposals may require amendment following the results of further survey work. Enhancements can be better advised and directed once additional survey work has been completed.	

7.5 Badgers

Badgers	Timing
Recommendations	
The site should be subject to a full badger survey to determine if badgers are present on site comprising a site walkover and the use of camera traps (if required).	Year round.

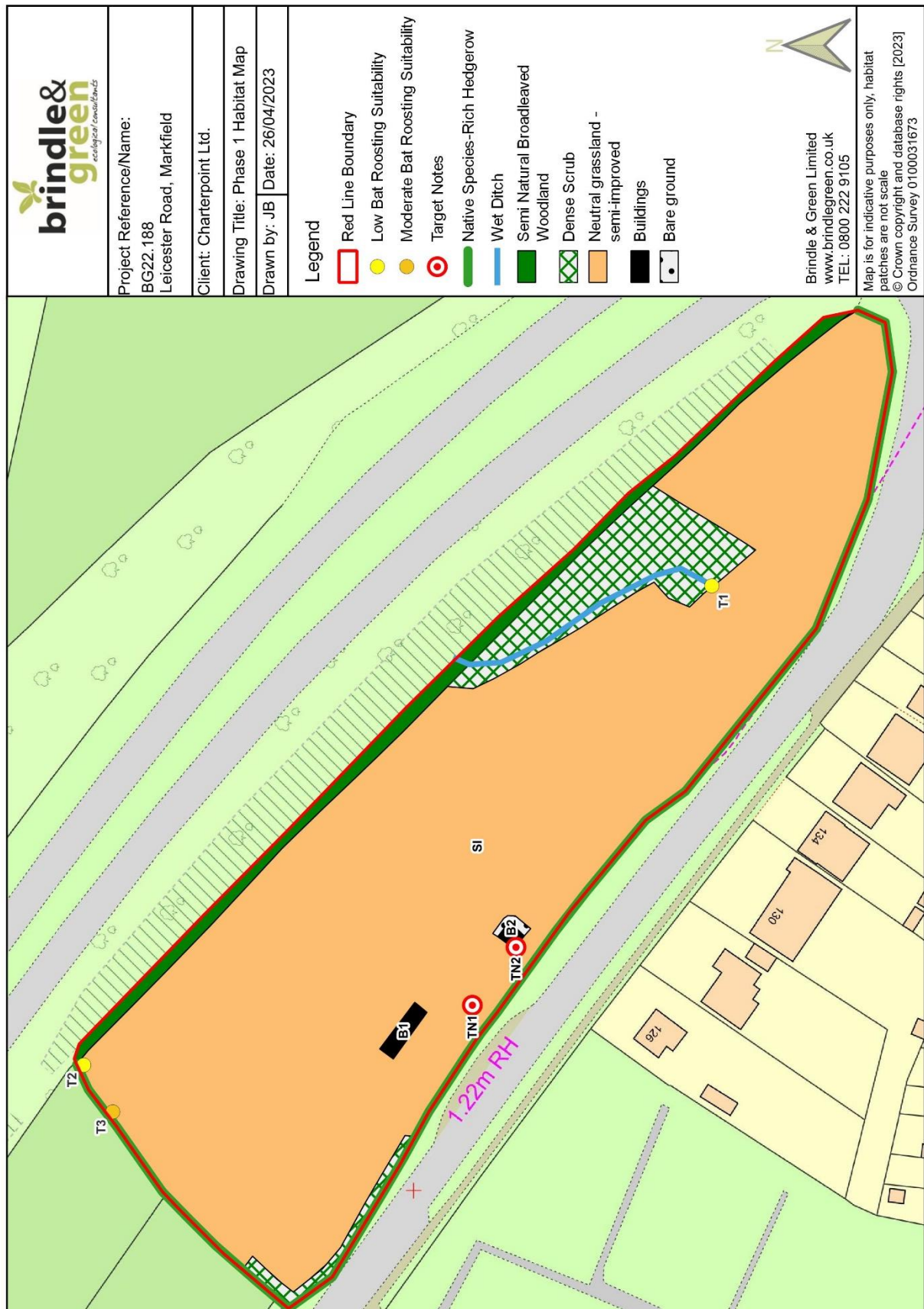
7.6 Reptiles

Reptiles	Timing
Recommendations	
Habitat features such as rough grassland, sloping topography, and scrub were considered highly conducive to finding this species on site. To establish whether reptiles are using the site it is recommended that suitable habitat patches are subjected to a full reptile presence / absence survey at the appropriate time of year.	Seven visits in suitable weather conditions Timing: March – September All surveys to be completed prior to determination
Enhancement Prescriptions	
Design proposals may require amendment following the results of further survey work.	

7.7 Hedgehog

Hedgehog	Timing
Recommendations Hedgehogs may use the site for foraging or commuting purposes. Reasonable avoidance measures should be followed to avoid injuring or killing hedgehog during site clearance. RAMs to be undertaken during the site clearance and construction phase of development such as: • Works should be undertaken during daylight hours. • Ground works should be covered overnight or incorporate a means of escape in the form of sloping sides, or a ramp such as a wooden plank out of the trench/groundwork(s). • Spoil mounds or vegetation piles should be removed as soon as possible or stored within skips so that they are off the ground as much as possible, to prevent overnight occupation. • If burning any cleared vegetation, carry out immediately after piling to prevent hedgehogs moving in prior to burning. • Piping should be capped to prevent the entrapment of hedgehogs overnight and when not in use materials should be stored above ground on pallets. • Chemicals such as fuels, should be stored in secure containers and spill kits should be available to use by contractors if spillages occur. • The base of the ruderal vegetation should be checked prior to removal. • Search areas of deadwood, brash, and discarded items by hand before removing.	During site clearance.

Appendix 1. Phase 1 Habitat Plan



Appendix 2. Phase 1 Target Notes

Target Note Number	Description
TN1	Swallow nest recorded in B2.
TN2	Muck heap.

Plant Species List with DAFOR Scale

Scientific nomenclature follows Stace (2010) for vascular plant species and common names follow BSBI List of British & Irish Vascular Plants and Stoneworts.

Please note that this plant species list was generated as part of a Phase 1 Habitat survey and does not constitute a full botanical survey.

Abundance was estimated using the DAFOR scale as follows: D = dominant, A = abundant, F = frequent, O = occasional, R = rare, LF = locally frequent

Common Name	Scientific Name	Estimated Abundance (DAFOR)
Field maple	<i>Acer campestre</i>	F
Cow parsley	<i>Anthriscus sylvestris</i>	A
False oat grass	<i>Arrhenatherum elatius</i>	O
Sweet vernal grass	<i>Arrhenatherum odoratum</i>	O
Common Knapweed	<i>Centaurea nigra</i>	O
Creeping thistle	<i>Cirsium arvense</i>	F
Hazel	<i>Corylus avellana</i>	F
Hawthorn	<i>Crataegus monogyna</i>	A
Crested dog's tail	<i>Cynosurus cristatus</i>	A
Cock's-foot	<i>Dactylis glomerata</i>	D
Fescue sp.	<i>Festuca</i> sp.	A
Ash	<i>Fraxinus excelsior</i>	F
Hawkweed sp.	<i>Hieracium</i> sp.	O
Yorkshire Fog	<i>Holcus lanatus</i>	D
Holly	<i>Ilex aquifolium</i>	F
Soft rush	<i>Juncus effusus</i>	O
Perennial ryegrass	<i>Lolium perenne</i>	D
Bird's-foot Trefoil	<i>Lotus corniculatus</i>	O
Timothy	<i>Phleum pratense</i>	O
Ribwort Plantain	<i>Plantago lanceolata</i>	F
Broadleaved plantain	<i>Plantago major</i>	A
Silver weed	<i>Potentilla anserina</i>	O
Creeping cinquefoil	<i>Potentilla reptans</i>	O
Blackthorn	<i>Prunus spinosa</i>	A
Oak sp.	<i>Quercus</i> sp.	F
Creeping Buttercup	<i>Ranunculus repens</i>	A
Meadow Buttercup	<i>Ranunculus arcis</i>	A
Rose sp.	<i>Rosa</i> sp.	O
Blackberry	<i>Rubus fruticosus</i>	F
Sorrel	<i>Rumex acetosa</i>	O
Broadleaved dock	<i>Rumex obtusifolius</i>	F
Elder	<i>Sambucus nigra</i>	O
Burnet	<i>Sanguisorba</i> sp.	O
Dandelion	<i>Taraxacum</i> sp.	A
White Clover	<i>Trifolium repens</i>	A

Common Nettle	<i>Urtica dioica</i>	A
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Appendix 3. General References

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Appendix 4. Legislation, Policy and Guidance

Articles of British wildlife and countryside legislation, policy guidance and both Local and National Biodiversity Action Plans (BAPs) are referred to. The articles of legislation are:

- The Wildlife and Countryside Act 1981 (as amended)
- The Conservation of Habitats and Species Regulations 2017 (as amended)
- Department for Communities and Local Government. National Planning Policy Framework. (2021)
- EC Council Directive on the Conservation of Wild Birds 79/409/EEC
- The Protection of Badgers Act 1992
- The Natural Environment and Rural Communities Act 2006 (Including National and Local Biodiversity Action Plan (LBAP / HPI))
- Hedgerow Regulations 1997
- The Environment Act 2021

Appendix 5. Legislation, Guidance and Methodology for Preliminary Ecological Appraisals.

Legislation, Guidance and Methodology

Breeding Birds

All nesting birds are protected under the Wildlife and Countryside Act 1981, which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. In addition, for species listed on Schedule 1 of the Wildlife and Countryside Act 1981 it is an offence to intentionally or recklessly cause disturbance at, on or near an 'active' nest.

The bird breeding season is typically accepted to start in February/March and continue through until September/October, however breeding birds can be found all year round depending on the given species and climatic conditions.

A site's habitat composition, locality, association to designated sites as well as current usage and management are all considered in the decision as to whether further bird related surveys are required. In addition, surveys may be recommended based on incidental bird records collected during a Preliminary Ecological Appraisal, species identified within an ecological data search or target species listed within a local biodiversity action plan.

Bird surveys are carried out in accordance with:

Gilbert G, Gibbons DW, Evans J. (1998) *Bird Monitoring Methods*. RSPB.

Bats

Roosting Bats

All bats in the United Kingdom and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2017 (as amended). It is an offence to damage or destroy any bat roost, intentionally or recklessly obstruct a bat roost, deliberately, intentionally or recklessly disturb a bat or intentionally kill, injure or take any bat.

Areas of concern; can be encountered in many types of structure and care should therefore be taken when undertaking maintenance or demolition of suitable structures and trees.

Site assessments of buildings, commuting and foraging habitat and trees are undertaken in accordance with: Collins, J (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines*, (3rd edition), Bat Conservation Trust, London. (Table 1 & 2 Below).

Preliminary Ecological Surveys look for evidence of bat presence such as feeding remains, bat droppings, roosting individuals and staining around potential access points. The suitability of site features are also assessed because absence of bat evidence, is not confirmation of a negative result.

Within trees, features searched for include; natural holes, woodpecker holes, cracks/splits in major limbs, loose bark, hollows, and dense cover of ivy over the tree. If evidence is found, or a building supports features conducive to supporting roosting bats then further presence / absence bat surveys and/or roost characterisation surveys will be recommended.

Foraging and Commuting bats

Habitat features on site are assessed for their suitability to support foraging and commuting bat populations. This assessment is independent from the suitability of the site to support roosting bats, and provides information on the likelihood of bat foraging activity within the local environment, and the dependence of individuals on these features for commuting to alternative roosting sites, foraging and migration.

Table 1: Guideline for assessing the suitability of a structure to support roosting habitat (Buildings and Trees), amended from Collins, J (2016)

Category	Description of roosting habitat	Number of additional presence / absence surveys required
Negligible Suitability	Suitable cavities may exist, but these are less than ideal.	None
Low Suitability	A structure with one or more potential roost sites that could be used by individual bats opportunistically. The feature and surrounding habitat do not provide enough shelter, conditions* space for larger roost types such as a maternity or hibernation roost. A tree of sufficient size and age to support roosting bats, but with no features observed from the ground, or the features only have a limited potential to support roosting bats.	One survey between May and August Trees – No further surveys required
Moderate Suitability	A structure or tree considered to have one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions* and surrounding habitat but are unlikely to support a roost of high conservation status (With regard to roost type only – assessments are made irrespective of species conservation status, which is established after presence is confirmed).	Two surveys between May and September (with at least one survey undertaken between May and August) One Dusk emergence and One Dawn re-entry survey to ideally be undertaken at least two weeks apart.
High Suitability	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions* and surrounding habitat.	Three surveys between May and September (with at least two surveys undertaken between May and August) One Dusk emergence and One Dawn re-entry survey to be undertaken. The third survey can be either Dusk or Dawn, undertaken at least two weeks apart.
Confirmed	This category is where positive evidence of bats has been recorded. For example, bats are found; bat droppings may be present at a suitable location for roosting bats; existing bat records may be associated with the structure.	

(* in this context conditions refers to the level of disturbance, light, height above ground, temperature, and humidity etc)

Table 2: Potential suitability of foraging and commuting habitat within an application boundary. Features should be assessed following this guide and professional judgement. Adapted from Collins J (2016)

Category	Description of commuting and foraging habitat	Survey effort to establish the value of commuting and foraging habitat**
Negligible Suitability	Negligible habitat features on site likely to be used by commuting or foraging bats.	None
Low Suitability	Habitat which could be used by low numbers of commuting bats such as an isolated gappy hedgerow, or an unvegetated stream unconnected to suitable habitat in the wider environment.	Transect /spot count/ timed search survey: One survey visit per active season AND Static automated surveys: One location per transect, over a five-night period, per season.

	Suitable, yet isolated habitat that could be used by foraging bats such as individual trees, or a patch of scrub.	
Moderate Suitability	Continuous habitat connected to the wider landscape that could be used by commuting bats, notably tree lines, hedgerows or linked back gardens. Habitat that is connected to the wider landscape which could be used by bats for foraging such as trees, open water, scrub or grassland.	Transect /spot count/ timed search survey One survey visit per month At least one survey should comprise dusk and pre-dawn (or dusk to dawn) within one 24-hour period. AND Static automated surveys: Two locations per transect, over a five-night period, per month (April to October)
High Suitability	Continuous, High-quality habitat that is well connected to the wider landscape which is considered to be highly conducive to commuting bats including river valleys, stream, hedgerows, and woodland edge High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree lined watercourses, and grazed parkland. Site is close to and connected to known roosts.	Transect /spot count/ timed search survey Up to two survey visit per month (April to October) At least one survey should comprise dusk and pre-dawn (or dusk to dawn) within one 24-hour period. AND Static automated surveys: Three locations per transect, over a five-night period, per month (April to October)

(** This is only a guide for survey effort required, the complexity of the site and the proposed disturbance / loss of features will determine the extent of works required on a site by site basis).

Badgers (*Meles meles*)

Badgers are protected under the Protection of Badgers Act 1992. It is illegal to wilfully kill, injure, disturb or take any badger, or attempt to do so and it is an offence to intentionally or recklessly damage, destroy, or obstruct access to any part of a badger sett.

Site assessments are undertaken in accordance with:
Harris S, Cresswell P and Jefferies D (1989). *Surveying Badgers*.

During the PEA, the site and the 30 metre zone of Influence considered for this species are searched for evidence of badger activity. The surveyor will identify evidence of activity, or habitat suitability for this protected species. Even if no evidence of badger activity is found, if local conditions suggest that the habitat may be suitable for badger, further surveys will be recommended.

Amphibians

The great crested newt and natterjack toad are fully protected under Schedule 5 of the wildlife and countryside Act 1981. The legislation protects these amphibians and their place of shelter or protection which may extend 500m from the breeding pond.

Great Crested Newt (*Triturus cristatus*)

The great crested newt, is fully protected under the Conservation of Habitat Regulations 2017 (as amended), making it an offence to intentionally or recklessly kill, injure, disturb or take great crested newts, intentionally or recklessly damage destroy or obstruct access to any place used by the animal for shelter or protection.

The legislation protects these amphibians and their place of shelter or protection which may extend 500m from the breeding pond. Sites should be considered suitable to support great crested newts if distribution and historical records suggest newts may be present, there is a pond within 500m of the development or the development site includes suitable terrestrial habitat refuges.

Great crested newt site assessments are undertaken in accordance with:

English Nature. (2001) *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough. and Langton T, Beckett C and Foster J (2001) *Great Crested Newt Conservation Handbook*. Froglife, Halesworth.

Prior to a site visit, a desk study pond search is undertaken. When searching for ponds, Brindle & Green apply a total of 4 sources to establish their location. The following online sources are used:
OS MAPPING VIA PRO MAP, GOOGLE EARTH PRO, GOOGLE MAPS and MAGIC MAPS

Each identified pond (Access permitting) is subjected to a Habitat Suitability Index (HSI) assessment providing a score for each pond. This survey should be undertaken during the summer period to be fully accurate, however assumptions can be made out of season to guide survey recommendations.

Reptiles

Two species of reptile, the sand lizard and smooth snake, and their habitats are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981. All other native British reptiles are protected against intentional killing and injury.

British reptiles are found in exposed, undisturbed areas, such as areas without cultivation with differing areas of grassland sward length. Suitable areas include abandoned sand quarries, fallow farmland land, heathland, post-industrial land, railway corridors etc. If these types of suitable features are found then further reptile surveys are recommended.

Edgar P, Foster J and Baker J (2010) *Reptile Habitat Management Handbook*. Amphibian and Reptile Conservation, Bournemouth.

Gent T and Gibson S (2003) *Herpetofauna Workers Manual*. JNCC, Peterborough.

Botanical Value

There are 60 plant species listed under Schedule 8 of the Wildlife and Countryside Act 1981 where it is an offence to intentionally pick or uproot or destroy any of these plant species.

During the PEA, a phase one habitat survey was undertaken following JNCC guidance. Further assessments are made to determine whether habitats comprise those identified as Habitats of Principal Importance under S42 of NERC Act 2006.

Surveys can be undertaken year-round, however, if species or site conditions suggest higher botanical interest a full botanical survey will be recommended.

Invertebrates

The following invertebrates are European protected species and it is considered an offence if you capture, kill, disturb or injure, on purpose or by not taking enough care. It is also against the law to damage or destroy a breeding or resting place, obstruct access to their resting or sheltering places, possess, sell, control or transport live or dead protected invertebrates, or parts of them.

Large blue butterflies (eggs, caterpillars, chrysalises and adults)

Fisher's estuarine moths (eggs, caterpillars, chrysalises and adults)

Little ramshorn whirlpool snails

Approximately 400 additional species form the invertebrate species of Principal Importance in England and are included within Schedule 5 of the Wildlife and Countryside Act 1981 and S4I of NERC Act 2006.

If suitable habitat for invertebrates is identified during the PEA further surveys will be recommended.

Ecological Enhancement

In March 2021 the Department for Communities and Local Government published the National Planning Policy Framework. This sets out planning policies on protection of biodiversity through the planning system. The document states - *opportunities to incorporate biodiversity in and around developments should be encouraged.*

For new buildings guidance such as in the following will be used:

Williams, C. (2010) *Biodiversity for Low and Zero Carbon Buildings, A Technical Guide for New Build.* Riba Publishing.

Designated Sites

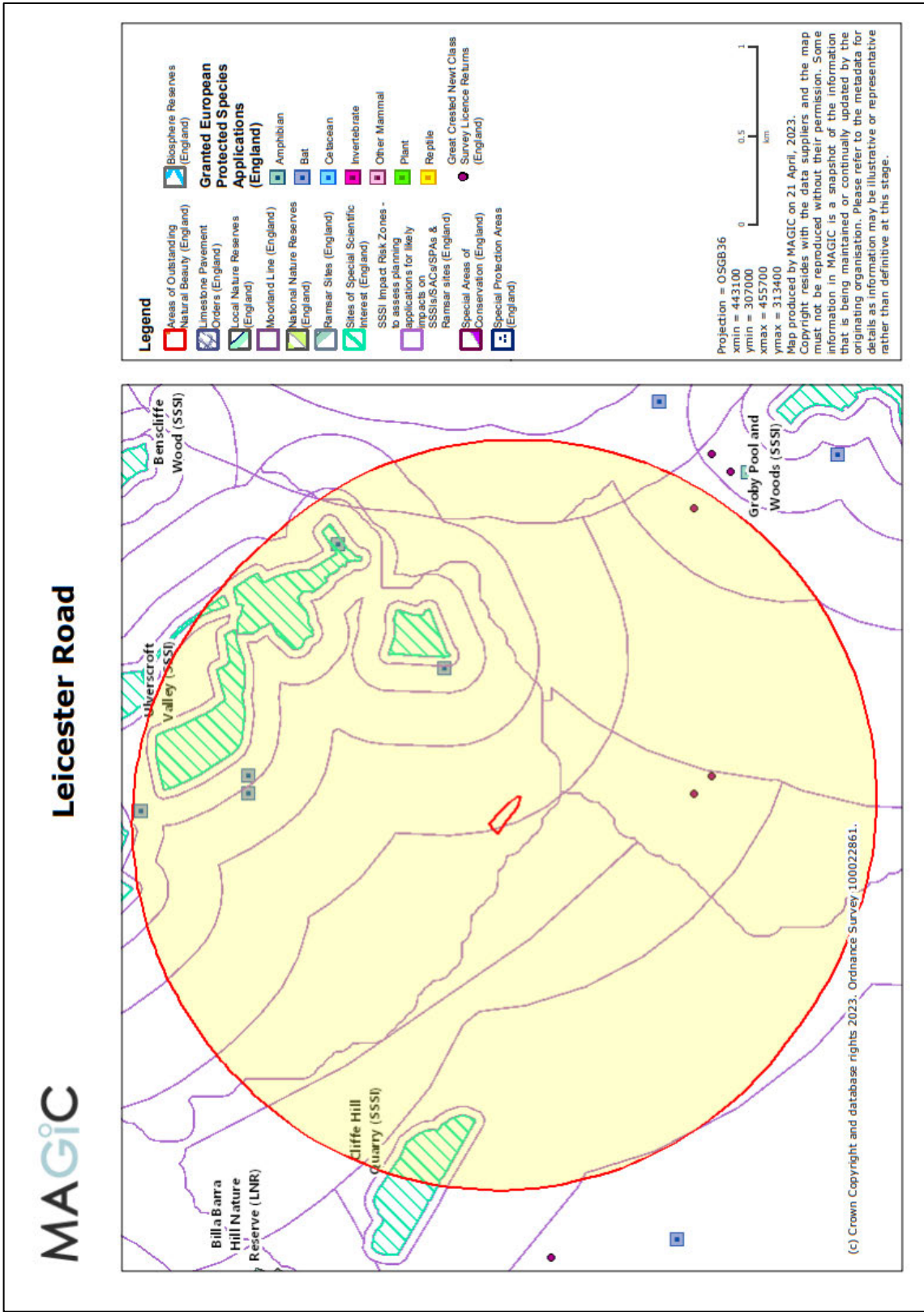
Designated areas are Sites of Special Scientific Interest (SSSI) while others have been designated as having European protection status. Local authorities can also designate areas for nature conservation and in doing so may impose local authority byelaws to support local nature conservation objectives. European designated status includes Special Protection Areas (SPAs) that preserve areas for birds and Special Areas of Conservation (SACs) which provides protection for habitats and the species which these habitats supports.

Information of Designated Protected Areas is received through Ecological Data Searches and Magic Map searches.

0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160 170 180 190 200 210 220 230 240 250 260 270 280 290 300 310 320 330 340 350 360 370 380 390 400 410 420 430 440 450 460 470 480 490 500 510 520 530 540 550 560 570 580 590 600 610 620 630 640 650 660 670 680 690 700 710 720 730 740 750 760 770 780 790 800 810 820 830 840 850 860 870 880 890 900 910 920 930 940 950 960 970 980 990 1000 1010 1020 1030 1040 1050 1060 1070 1080 1090 1100 1110 1120 1130 1140 1150 1160 1170 1180 1190 1200 1210 1220 1230 1240 1250 1260 1270 1280 1290 1300 1310 1320 1330 1340 1350 1360 1370 1380 1390 1400 1410 1420 1430 1440 1450 1460 1470 1480 1490 1500 1510 1520 1530 1540 1550 1560 1570 1580 1590 1600 1610 1620 1630 1640 1650 1660 1670 1680 1690 1700 1710 1720 1730 1740 1750 1760 1770 1780 1790 1800 1810 1820 1830 1840 1850 1860 1870 1880 1890 1900 1910 1920 1930 1940 1950 1960 1970 1980 1990 2000 2010 2020 2030 2040 2050 2060 2070 2080 2090 2100 2110 2120 2130 2140 2150 2160 2170 2180 2190 2200 2210 2220 2230 2240 2250 2260 2270 2280 2290 2300 2310 2320 2330 2340 2350 2360 2370 2380 2390 2400 2410 2420 2430 2440 2450 2460 2470 2480 2490 2500 2510 2520 2530 2540 2550 2560 2570 2580 2590 2600 2610 2620 2630 2640 2650 2660 2670 2680 2690 2700 2710 2720 2730 2740 2750 2760 2770 2780 2790 2800 2810 2820 2830 2840 2850 2860 2870 2880 2890 2900 2910 2920 2930 2940 2950 2960 2970 2980 2990 3000 3010 3020 3030 3040 3050 3060 3070 3080 3090 3100 3110 3120 3130 3140 3150 3160 3170 3180 3190 3200 3210 3220 3230 3240 3250 3260 3270 3280 3290 3300 3310 3320 3330 3340 3350 3360 3370 3380 3390 3400 3410 3420 3430 3440 3450 3460 3470 3480 3490 3500 3510 3520 3530 3540 3550 3560 3570 3580 3590 3600 3610 3620 3630 3640 3650 3660 3670 3680 3690 3700 3710 3720 3730 3740 3750 3760 3770 3780 3790 3800 3810 3820 3830 3840 3850 3860 3870 3880 3890 3900 3910 3920 3930 3940 3950 3960 3970 3980 3990 4000 4010 4020 4030 4040 4050 4060 4070 4080 4090 4100 4110 4120 4130 4140 4150 4160 4170 4180 4190 4200 4210 4220 4230 4240 4250 4260 4270 4280 4290 4300 4310 4320 4330 4340 4350 4360 4370 4380 4390 4400 4410 4420 4430 4440 4450 4460 4470 4480 4490 4500 4510 4520 4530 4540 4550 4560 4570 4580 4590 4600 4610 4620 4630 4640 4650 4660 4670 4680 4690 4700 4710 4720 4730 4740 4750 4760 4770 4780 4790 4800 4810 4820 4830 4840 4850 4860 4870 4880 4890 4900 4910 4920 4930 4940 4950 4960 4970 4980 4990 5000 5010 5020 5030 5040 5050 5060 5070 5080 5090 5100 5110 5120 5130 5140 5150 5160 5170 5180 5190 5200 5210 5220 5230 5240 5250 5260 5270 5280 5290 5300 5310 5320 5330 5340 5350 5360 5370 5380 5390 5400 5410 5420 5430 5440 5450 5460 5470 5480 5490 5500 5510 5520 5530 5540 5550 5560 5570 5580 5590 5600 5610 5620 5630 5640 5650 5660 5670 5680 5690 5700 5710 5720 5730 5740 5750 5760 5770 5780 5790 5800 5810 5820 5830 5840 5850 5860 5870 5880 5890 5900 5910 5920 5930 5940 5950 5960 5970 5980 5990 6000 6010 6020 6030 6040 6050 6060 6070 6080 6090 6100 6110 6120 6130 6140 6150 6160 6170 6180 6190 6200 6210 6220 6230 6240 6250 6260 6270 6280 6290 6300 6310 6320 6330 6340 6350 6360 6370 6380 6390 6400 6410 6420 6430 6440 6450 6460 6470 6480 6490 6500 6510 6520 6530 6540 6550 6560 6570 6580 6590 6600 6610 6620 6630 6640 6650 6660 6670 6680 6690 6700 6710 6720 6730 6740 6750 6760 6770 6780 6790 6800 6810 6820 6830 6840 6850 6860 6870 6880 6890 6900 6910 6920 6930 6940 6950 6960 6970 6980 6990 7000 7010 7020 7030 7040 7050 7060 7070 7080 7090 7100 7110 7120 7130 7140 7150 7160 7170 7180 7190 7200 7210 7220 7230 7240 7250 7260 7270 7280 7290 7300 7310 7320 7330 7340 7350 7360 7370 7380 7390 7400 7410 7420 7430 7440 7450 7460 7470 7480 7490 7500 7510 7520 7530 7540 7550 7560 7570 7580 7590 7600 7610 7620 7630 7640 7650 7660 7670 7680 7690 7700 7710 7720 7730 7740 7750 7760 7770 7780 7790 7800 7810 7820 7830 7840 7850 7860 7870 7880 7890 7900 7910 7920 7930 7940 7950 7960 7970 7980 7990 8000 8010 8020 8030 8040 8050 8060 8070 8080 8090 8100 8110 8120 8130 8140 8150 8160 8170 8180 8190 8200 8210 8220 8230 8240 8250 8260 8270

Appendix 7. Magic Data

Two-kilometre radius search of the project site.



Site Check Report generated on Fri Apr 21 2023
 You selected the location: Centroid Grid Ref: SK49461027
 The following features have been found in your search area:

SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)

1. DOES PLANNING PROPOSAL FALL INTO ONE OR MORE OF THE CATEGORIES BELOW? **2. IF YES, CHECK THE CORRESPONDING DESCRIPTION(S) BELOW. LPA SHOULD CONSULT NATURAL ENGLAND ON LIKELY RISKS FROM THE FOLLOWING:**

All Planning Applications
Infrastructure

Pipelines and underground cables, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals.

Wind & Solar Energy
Minerals, Oil & Gas

Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.

Rural Non Residential

Large non residential developments outside existing settlements/urban areas where net additional gross internal floorspace is > 1,000m² or footprint exceeds 0.2ha.

Residential

Residential development of 100 units or more.

Rural Residential

Any residential development of 50 or more houses outside existing settlements/urban areas.

Air Pollution

Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons & digestate stores > 200m², manure stores > 250t).

Combustion

General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.

Waste

Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill.

Composting

Any composting proposal with more than 500 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.

Discharges

Any discharge of water or liquid waste of more than 2m³/day to ground (ie to seep away) or to surface water, such as a beck or stream.

Water Supply

Large infrastructure such as warehousing / industry where net additional gross internal floorspace is > 1,000m² or any development needing its own water supply .

Notes 1

Notes 2

GUIDANCE - How to use the Impact Risk Zones

[/Metadata for magic/SSSI IRZ User Guidance MAGIC.pdf](#)

Granted European Protected Species Applications (England)

Case reference of granted application	2015-15751-EPS-MIT-2
Species group to which licence relates	Bat
Species on the licence	BLE,C-PIP,NATT
Site county of licence	Leicestershire
Licence Start Date	12/04/2017
Licence End Date	30/11/2020
Does licence impact on a breeding site	Y
Does licence allow damage of breeding site	N
Does licence allow damage of a resting place	Y
Does licence allow destruction of breeding site	Y
Does licence allow destruction of a resting place	Y
Does licence impact on a hibernation site	Unknown
NERC agreement reference	Unknown

Case reference of granted application	2015-15751-EPS-MIT-3
Species group to which licence relates	Bat
Species on the licence	BLE,C-PIP,NATT
Site county of licence	Leicestershire
Licence Start Date	29/10/2018
Licence End Date	30/11/2020
Does licence impact on a breeding site	Y
Does licence allow damage of breeding site	N
Does licence allow damage of a resting place	Y
Does licence allow destruction of breeding site	Y
Does licence allow destruction of a resting place	Y
Does licence impact on a hibernation site	Unknown
NERC agreement reference	Unknown

Case reference of granted application	2015-15751-EPS-MIT-4
Species group to which licence relates	Bat
Species on the licence	BLE,C-PIP,NATT
Site county of licence	Leicestershire
Licence Start Date	29/01/2019
Licence End Date	01/09/2021
Does licence impact on a breeding site	Y
Does licence allow damage of breeding site	N
Does licence allow damage of a resting place	Y
Does licence allow destruction of breeding site	Y
Does licence allow destruction of a resting place	Y
Does licence impact on a hibernation site	Unknown
NERC agreement reference	Unknown

Case reference of granted application	2014-4859-EPS-MIT
Species group to which licence relates	Bat
Species on the licence	BLE,C-PIP
Site county of licence	Leicestershire
Licence Start Date	25/03/2014
Licence End Date	30/09/2016
Does licence impact on a breeding site	Y
Does licence allow damage of breeding site	Y
Does licence allow damage of a resting place	Y
Does licence allow destruction of breeding site	Y
Does licence allow destruction of a resting place	Y
Does licence impact on a hibernation site	Unknown
NERC agreement reference	Unknown

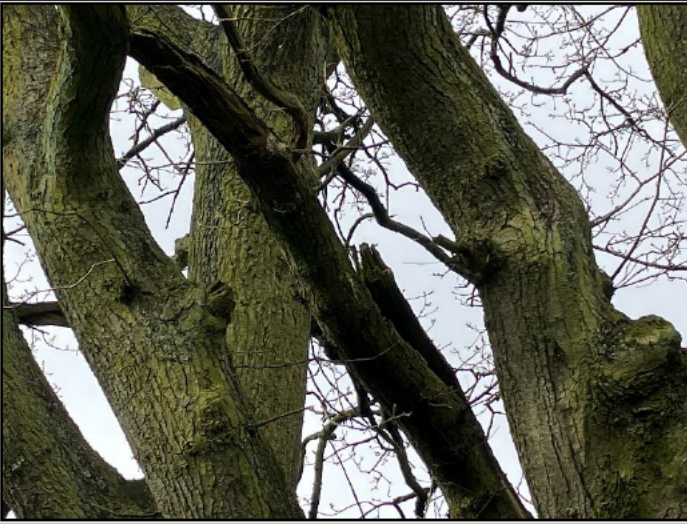
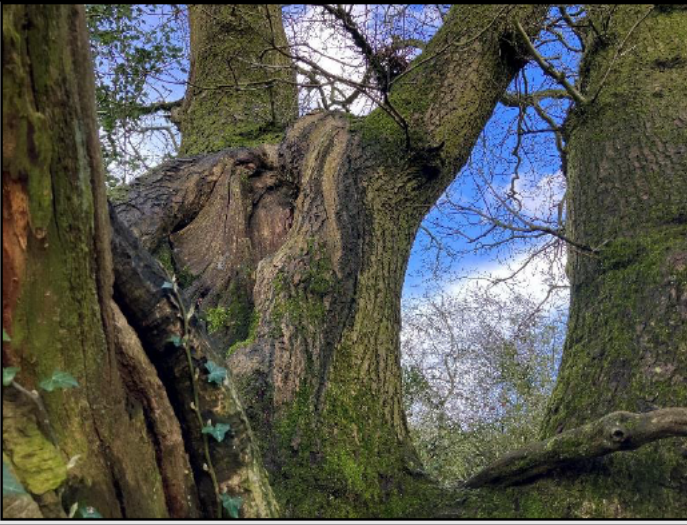
Case reference of granted application	2015-14867-EPS-MIT
Species group to which licence relates	Bat
Species on the licence	BLE,C-PIP,NATT
Site county of licence	Leicestershire
Licence Start Date	09/10/2015
Licence End Date	31/03/2016
Does licence impact on a breeding site	N
Does licence allow damage of breeding site	N
Does licence allow damage of a resting place	N
Does licence allow destruction of breeding site	N
Does licence allow destruction of a resting place	N
Does licence impact on a hibernation site	Unknown
NERC agreement reference	Unknown

Case reference of granted application	2015-15751-EPS-MIT
Species group to which licence relates	Bat
Species on the licence	BLE,C-PIP,NATT
Site county of licence	Leicestershire
Licence Start Date	06/11/2015
Licence End Date	05/11/2020
Does licence impact on a breeding site	Y
Does licence allow damage of breeding site	N
Does licence allow damage of a resting place	Y
Does licence allow destruction of breeding site	Y
Does licence allow destruction of a resting place	Y
Does licence impact on a hibernation site	Unknown
NERC agreement reference	Unknown
Case reference of granted application	2015-15751-EPS-MIT-1
Species group to which licence relates	Bat
Species on the licence	BLE,C-PIP,NATT
Site county of licence	Leicestershire
Licence Start Date	18/04/2016
Licence End Date	30/11/2020
Does licence impact on a breeding site	Y
Does licence allow damage of breeding site	N
Does licence allow damage of a resting place	Y
Does licence allow destruction of breeding site	Y
Does licence allow destruction of a resting place	Y
Does licence impact on a hibernation site	Unknown
NERC agreement reference	Unknown
Case reference of granted application	2015-7909-EPS-MIT
Species group to which licence relates	Bat
Species on the licence	C-PIP
Site county of licence	Leicestershire
Licence Start Date	13/03/2015
Licence End Date	10/03/2020
Does licence impact on a breeding site	N
Does licence allow damage of breeding site	N
Does licence allow damage of a resting place	N
Does licence allow destruction of breeding site	N
Does licence allow destruction of a resting place	Y
Does licence impact on a hibernation site	Unknown
NERC agreement reference	Unknown
Case reference of granted application	EPSM2012-5160
Species group to which licence relates	Bat
Species on the licence	C-PIP,BLE;WHISK
Site county of licence	Leicestershire
Licence Start Date	30/04/2013
Licence End Date	31/08/2018
Does licence impact on a breeding site	Y
Does licence allow damage of breeding site	
Does licence allow damage of a resting place	
Does licence allow destruction of breeding site	Y
Does licence allow destruction of a resting place	Y
Does licence impact on a hibernation site	Unknown
NERC agreement reference	Unknown
Great Crested Newt Class Survey Licence Returns (England)	
GCN Present	Y
Survey Date	16/04/2014
OS Grid Ref	SK496092
GCN Present	Y
Survey Date	15/05/2014
OS Grid Ref	SK496092
GCN Present	Y
Survey Date	29/04/2014
OS Grid Ref	SK496092
GCN Present	Y
Survey Date	08/04/2014
OS Grid Ref	SK496092
GCN Present	Y

Survey Date	07/05/2014
OS Grid Ref	SK497091
GCN Present	Y
Survey Date	09/06/2015
OS Grid Ref	SK512092
GCN Present	Y
Survey Date	22/04/2014
OS Grid Ref	SK496092
GCN Present	Y
Survey Date	03/06/2015
OS Grid Ref	SK512092
GCN Present	Y
Survey Date	11/05/2015
OS Grid Ref	SK512092
GCN Present	Y
Survey Date	16/04/2014
OS Grid Ref	SK497091
GCN Present	Y
Survey Date	22/04/2014
OS Grid Ref	SK497091
GCN Present	Y
Survey Date	19/05/2015
OS Grid Ref	SK512092
Sites of Special Scientific Interest (England)	
Name	Cliffe Hill Quarry SSSI
Reference	1003016
Natural England Contact	NEIL RUDGE
Natural England Phone Number	0845 600 3078
Hectares	19.21
Citation	1003647
Hyperlink	http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCodes=1003647
Name	Ulverscroft Valley SSSI
Reference	1003069
Natural England Contact	East Midlands Area Delivery
Natural England Phone Number	0845 600 3078
Hectares	110.75
Citation	1002060
Hyperlink	http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCodes=1002060
Areas of Outstanding Natural Beauty (England)	
No Features found	
Limestone Pavement Orders (England)	
No Features found	
Local Nature Reserves (England)	
No Features found	
Moorland Line (England)	
No Features found	
National Nature Reserves (England)	
No Features found	
Ramsar Sites (England)	
No Features found	
Special Areas of Conservation (England) - points	
No Features found	
Special Areas of Conservation (England)	
No Features found	
Special Protection Areas (England)	
No Features found	

Appendix 8. Buildings and Trees with Bat Roost Suitability

Photographs of Buildings and Trees with Bat Roost Suitability	
B1 – Negligible suitability for roosting bats.	
B2 – Negligible suitability for roosting bats.	
T1 - Low suitability for roosting bats.	

T1 – Knot hole PRF	
T1 – Lifted bark PRF	
T1 – Trunk cavity PRF	

T2 - Low suitability for roosting bats.



T2 – Lifted bark PRF



T2 – Knot hole PRF



T3 – Moderate suitability for roosting bats.



T3 – Trunk cavity/scar 1



T3 – Trunk cavity/scar 2



Appendix 9. Confidential Badger Records

