



Preliminary Ecological Appraisal

The White Swan, Stoke Golding

March 2025

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Executive Summary

Site

Location	The White Swan, High Street, Stoke Golding, Leicestershire, CV13 6HA
Site Context	The Site is a flat parcel of land dominated by amenity grassland. Buildings are present to the south of the Site. A line of deciduous trees is present along the northern, western and eastern boundary.
Landscape Context	Habitats within the vicinity of the Site were dominated by agricultural field parcels. Various ponds, hedgerows, woodland blocks, river corridors and small urban areas were also present.

Project

Proposed works	Proposals for the Site include the extension of the existing onsite building into the grassland field.
Ecological Background	No previous ecological assessments are known to have been undertaken on habitats within the Site at the time of writing.

Methods

Objectives	<ul style="list-style-type: none">Outline all recorded ecological constraints associated with the Site with a focus on protected and notable habitats and species.Provide a baseline of onsite habitats and other ecological features.Deliver specialist advice to ensure compliance with relevant environmental and wildlife legislation, and current best practice guidelines.
Approach	A desk-based assessment was conducted using readily available online resources and local biological records up to 2 km from the Site boundary obtained from Leicestershire and Rutland Environmental Records Centre. A UKHab survey of the Site was conducted by Brown & Co Assistant Ecologist Megan Carter on 15 January 2025. All habitats within the Site were identified, assessed, and the potential of the Site and immediate vicinity to support protected and notable species was estimated.

Results

Habitats	The Site was dominated by a two-storey commercial building, car park and modified grassland containing areas of scattered scrub and hardstanding. A tree line is also present.
Species	Onsite habitats had potential to support nesting birds, great crested newts, reptiles, foraging hedgehog and badger in the form of grassland, scrub and tree line.

Recommendations

Further Work & Surveys

- Nesting Birds – clearance/management of any onsite vegetation higher than 300 mm should take place outside of the core nesting bird season (March-August inclusive). **If this cannot be achieved**, it is recommended that a pre-works check by a suitably qualified ecologist should take place within 48 hrs prior of any works.
- Non-licensed Method Statement – a Non-licensed Method Statement should be produced that will outline appropriate mitigation and protection measures to be employed in regard to great crested newt, badger, and reptile. The NLMS should include a pre-works check by a suitably qualified ecologist to identify potential constraints associated with the target species.

Mitigation

- Hedgehog – any refugia with potential to be used by hedgehog should be avoided by the works.
- Other taxa – various recommendations to protect and mitigate risks to animals outlined in section 4.2.2.
- Environment – various recommendations to protect and mitigate risks to the environment outlined in section 4.2.3.

Enhancement

- Inclusion of biodiversity enhancement features outlined in section 4.3.1.
- General biodiversity enhancements recommendations are outlined in section 4.3.2.

1. Introduction

1.1 Project Background

Brown & Co was commissioned by Pete Sheppard in November 2024 to undertake a Preliminary Ecological Appraisal (PEA) of land at The White Swan, High Street, Stoke Golding, Leicestershire, CV13 6HA (NRG: SP39729735)—hereafter referred to as ‘the Site’.

This PEA sets out the results of a desk-based study and a survey of the Site undertaken on 15 January 2025.

The Site is a flat parcel of land dominated by a two-storey commercial building and modified grassland. A treeline is also present.

This report has been produced to support a planning application to extend the existing onsite building, into the private amenity field and proposed outdoor seating area.

1.2.2 Present Context

The Site was an approximately 0.5 ha flat parcel of land at the western extent of Stoke Golding (See Figure 1). The Site was dominated by modified grassland with buildings also present. A single deciduous line of trees ran along the northern, eastern and western Site boundaries.



Figure 1 – Site location (redline), showing the wider local landscape (© 2025 Microsoft Corporation, © 2025 Maxar, ©CNES (2025) Distribution Airbus DS).

Imagery taken from Aerial Imagery March 2025.

1.2.3 Landscape Context

The Site is situated in the southwest of Leicestershire and within the western extent of the village of Stoke Golding. The wider landscape around the Site was dominated by agricultural field parcels, a mix of arable and pastural, with various hedgerows, waterbodies, river corridors and small urban areas also present.

Multiple public roadways, chiefly associated with the urban areas of Stoke Golding and Hinckley, are present within the local vicinity of the Site. High Street lies directly south of the Site.

No statutory main rivers were present within 2 km of the Site.

1.2.4 *Connectivity*

Considering the above outlined contextual features regarding the Site and its surrounding landscape, it is estimated that overland connectivity of the Site to local habitats is moderate owing to several actively farmed agricultural field parcels, public roadways, and urban infrastructure presenting minor dispersal barriers to terrestrial fauna, however, numerous interconnected hedgerows, field margins, and vegetated gardens are also present and are considered to allow facilitate some connectivity for these species.

While no waterbodies are present within the Site, one freshwater pond was present within 250 m of the Site. This, combined with the overland terrestrial connectivity described above, are considered to leave a moderate potential of semi-aquatic species with terrestrial life phases to commute to/from the Site.

It is further estimated that more mobile, flying species, such as bats, birds, and certain insect taxa, would be more readily able to commute to/from the Site.

2. Methods

All methodology associated with the onsite and desk-based elements of this document have been undertaken with reference to CIEEM (2017a and 2017b) and British Standards (2013) and adapted for the specific context of the Site and project proposals.

2.1 Objectives

The aim of this report is to provide a 1st-stage assessment of the Site and certain aspects of adjacent areas in regard to identifying and discussing any potential ecological constraints associated with the project. Such constraints include statutory designated sites and their associated Impact Risk Zones, protected and notable species and habitats, and invasive non-native species. A plan showing all onsite habitats and important ecological features within the zones of influence will be generated. Recommendations for further work/surveying, appropriate mitigation, and enhancement opportunities will be provided.

With reference to Delahay & Bartlett (2024) and other reviews of evidence-based approaches to ecological consultancy in Britain, this report seeks to critically analyse the methods employed where possible, and to provide full and current literature reviews at available opportunities, with particular focus on recommended outputs. So-called 'best practice guidance', including government and non-governmental organisation produced documents (not including laws and acts), is not assumed to be authoritative scientific advice at any stage of this report. Where more current or empirically robust literature is available on the various ecological and environmental principles, methods, and recommendations outlined in this assessment, these sources are laid-out, discussed and juxtaposed against 'traditional', perhaps alternative, narratives. Professional judgement based on project knowledge and survey observations are occasionally relied upon.

All standards, guidance, and professional opinions within this assessment are subject to ongoing review and scrutiny in the light of newly emerging data and information sources.

2.2 Mitigation Hierarchy

In applying the widely used professional guideline of the mitigation hierarchy (see Figure 2), the following processes for this report was adhered to:

Avoid – ecological features of note, as identified by this report, should be avoided in the first instance. This can be achieved by applying a compensatory design strategy that appropriately buffers said features or shifts the Site footprint.

Minimise – any potential adverse impacts identified in this report should be appropriately mitigated for in the design and project implementation phases.

Compensate – when avoidance and minimising options have been exhausted, impacts can be compensated for via project outcomes. Compensation should seek to provide adequate project and design options that will equal or exceed the impact to be compensated for.

Offset – the project has the opportunity to deliver enhancements to offset and exceed the requirements of avoidance, minimisation, and compensation.

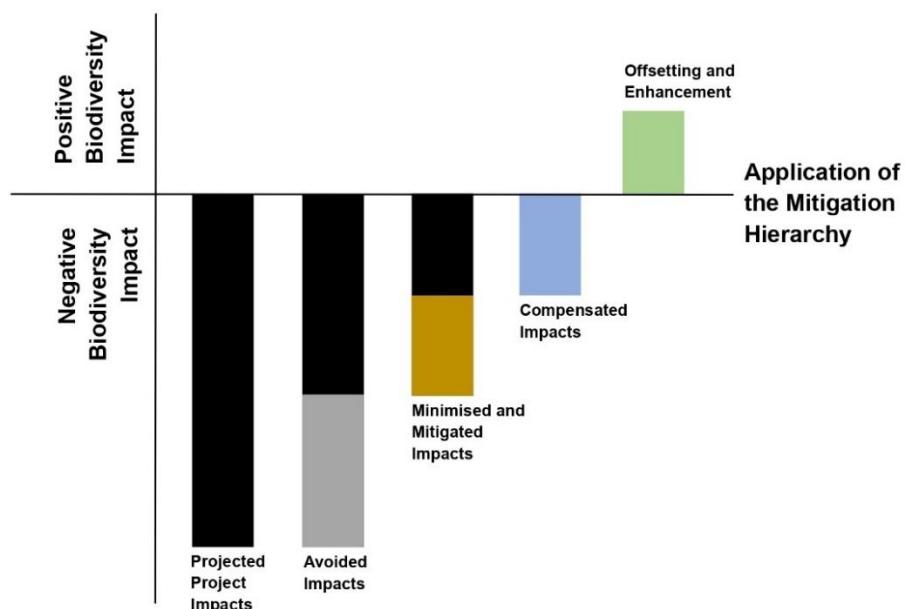


Figure 2 – Summary of the process of applying the mitigation hierarchy adhered to during this assessment.

2.3 Criteria of Importance

Statutory and non-statutory designated sites and habitats within the zones of influence were assessed on the following criteria to allocate their relative importance:

- Type of designation.
- Habitat Rarity.
- Protected, notable and/or threatened species records.
- Biodiversity – quantity of native or widely naturalised animal, plant and fungal species; and genetic diversity within individual species' populations.
- Diversity of habitat type, age, and structure.
- Connectivity on a Site, local vicinity, and landscape level.

2.4 Legislation and Policy

Appendix A sets out the national and local planning policy, as well as environmental and wildlife legislation relevant to the Site. The project must adhere to these documents at all times. The contents of this Preliminary Ecological Appraisal are written in part to avoid an offence being committed in regard to this policy and legislation.

2.5 Zones of influence

Zones of influence include the Site, any adjacent areas/features that could be impacted by the project (including hydrological and nutrient cycling disruption), and areas/features that could be temporarily impacted by the project, such as access routes and equipment and/or materials storage areas. Current guidance from CIEEM (2018) recommends that all zones of influence are assessed as part of ecological assessments.

Table 2.1 presents the zones of influence employed in this assessment.

Table 2.1 – Zones of influence investigated during this Preliminary Ecological Appraisal

Ecological Feature	Zone of Influence
European statutory designated sites notified for bat populations	10 km
Statutory designated sites	5 km
Non-statutory designated sites	2 km
Local biological records and granted European Protected Species licences	2 km
Priority habitats (habitats of principle importance to biodiversity conservation in England listed under Section 41 in the Natural Environment and Rural Communities Act (NERC) 2006 (as amended))—desk-based assessment	1 km
Non-priority habitats assessed at the time of survey	50 m
Badger (<i>Meles meles</i>) setts/activity	50 m
Bat suitable habitat – commuting and foraging	2 km
Bat roosting features	30 m
Beaver (<i>Castor fiber</i>), otter (<i>Lutra lutra</i>), water vole (<i>Arvicola amphibius</i>), and white-clawed crayfish (<i>Austropotamobius pallipes</i>) suitable habitat/signs	100 m
Bird records (direct observations at the time of survey) of species listed under Schedule 1 of the Wildlife and Countryside Act (WCA) 1981 (as amended)	500 m.
Waterbodies suitable as breeding sites for great crested newt (<i>Triturus cristatus</i>)	250 m
Hazel Dormouse (<i>Muscardinus avellanarius</i>) suitable habitat/signs	50 m
Reptile (direct observations at the time of survey and hibernacula/shelter searches)	30 m
Roman Snail (<i>Helix pomatia</i>) suitable habitat	30 m
Other protected species records (direct observations at the time of survey) listed on Schedules 5 and 8 of the WCA and/or European Protected Species (EPS) listed on the Conservation of Habitats and Species Regulations (CHSR) 2017 (as amended) and suitable habitat	100 m
Priority species records (direct observations at the time of survey) as listed under Section 41 of the NERC Act 2006 (as amended) such as brown hare (<i>Lepus europaeus</i>), harvest mouse (<i>Micromys minutus</i>), and polecat (<i>Mustela putorius</i>)	50 m.
Other common and widespread species records (direct observations at the time of survey) such as small mammals and insects	10 m

2.3 Desk Study

A desk-based assessment was conducted of the following features:

2.3.1 *Statutory and Non-statutory Designated Sites Notified for Nature Conservation*

A search on Defra's online MAGIC tool was used to identify and assess statutory designated sites within the zone of influence. The local records provided by Leicestershire and Rutland Environmental Records Centre were used to set out the non-statutory designated sites located within the zone of influence. Descriptions of the sites were given using information set out in the biological records and information published by Natural England, e.g. SSSI citations. Distance (nearest 5 m), direction, connectivity, and any notified protected or notable species were also discussed where relevant. Statutory sites designated for non-conservation purposes, such as geological sites, were excluded from this assessment.

2.3.2 *Priority Habitats*

Priority Habitats were assessed up to 1 km from the Site boundary. Defra's online MAGIC tool was used to identify these habitats and their extent. The Woodland Trust's Ancient Tree Inventory was used to search for Priority Trees within the zone of influence. Distance and connectivity were also discussed where relevant.

2.3.3 *Protected and Notable Species Records*

A combination of local biological records supplied by Leicestershire and Rutland Environmental Records Centre (LREC) a variety of opensource webpages, and citizen science observations were used to inform an assessment of protected and notable species within the zones of influence. Given that species' distributions, populations, and individual territories change relatively often through time (Bright *et al.* 2006; Matthews *et al.* 2018; Thaxter *et al.* 2010), species records are only considered relevant to this assessment if they occurred within the last 10 years.

2.3.4 Connectivity

Connectivity is discussed and referred to in multiple sections throughout this report to support the ecological assessment of the Site and proposed works.

While the scientific concept of connectivity has been traditionally hard to define (Crooks 2010) and is potentially a complex of different processes (Fahrig *et al.* 2021), for the purposes this assessment Merriam (1984) and Taylor *et al.* (1993) are lent from in the following definition:

The degree to which isolation of organisms is prevented via biotic and abiotic factors that impact movement and/or dispersal.

With this definition of connectivity, in the context of the Site's connectivity to the various features outlined in this report, this can include physical barriers such as public roadways or watercourses, or behavioural responses such as animals' reactions to disturbance (Tischendorf & Fahrig 2000)—where physical barriers are not present, functional barriers may still exist where species are less able/likely to use certain areas (Crooks 2010).

The permeability of landscapes and habitats is assessed on a taxa, species, and population level as the consequences of dispersal barriers can vary markedly between these groups depending on their ecology. For example, connectivity for flying bats and birds to onsite habitats could be assessed to be higher than that of terrestrial small mammals that need to locomote at ground level.

Different levels of connectivity can impact species in different ways. For example, species that naturally exist in metapopulations—a group of geographically local populations that share occasional migration of individuals and gene flow between them—may be more negatively impacted by relatively low connectivity than species with less frequent landscape gene flow. At an ecosystem level, reduced connectivity through fragmentation of

landscapes (physically or functionally) is considered to have negative biodiversity effects (Rudnick *et al.* 2012). Although, reduced connectivity and fragmentation is often thought to be conflated with habitat loss and may have some positive impacts (Fahrig 2016 & 2017). Nevertheless, less connectivity reduces species' capacity to disperse through landscapes and improving connectivity in mainland Britain fits in with a key output of the Lawton reviews' (2010) '*bigger, better, more joined up*' recommendation for ecological sites and networks to the then UK Environment Secretary.

This assessment ranks connectivity on the following scale:

High – good connectivity, perhaps with direct linking features and habitats. No major or moderate dispersal barriers present.

Moderate – medium connectivity. Opportunities for dispersal are present, perhaps under certain conditions such as time of day or year, but dispersal barriers are present to some degree and may inhibit species' movement. More permeable corridors and habitats may be preferred.

Low – poor connectivity. At least one major dispersal barrier is present; there is negligible potential for movement to/from the Site.

2.4 Field study

A survey of the site was conducted on 15 January 2025 by Assistant Ecologist Megan Carter BSc (Hons) MSc.

The survey area was defined to include the Site and relevant zones of influence shown in Table 2.1. The survey area was subject to a walkover by the attending ecologist, where in the onsite habitats were identified and assessed in accordance with the UK Habitat Classification Version 2.0 (UKHab Ltd 2023). Flora species lists were compiled for each habitat and assigned positions on the DAFOR (Dominant, Abundant, Frequent, Occasional,

or Rare) scale as laid out in Walker *et al.* (2010). Additionally, the Site was assessed for its suitability for protected and notable species. Any evidence of such species, e.g. Badger setts and signs, was recorded and geo-referenced onsite.

An adaptation of Jukes (2021) ‘checklist’ for considering site suitability for invertebrates in initial scoping was employed in reference to onsite habitats. This method seeks to identify the presence/absence of ecological features that benefit invertebrate abundance and diversity.

2.5 Great Crested Newt Habitat Suitability Index

In England, great crested newt (GCN) have more stringent habitat requirements than other native amphibian species (Wilkinson *et al.* 2011). Thus, to inform the assessment of the Site in regard to this species, a GCN Habitat Suitability Index (HSI) was undertaken for all waterbodies present within the Site and within 250 m of the Site boundary.

The HSI is a process-based quantitative method developed by Oldham *et al.* (2000)—amended by Amphibian and Reptile groups UK (2010)—that models breeding suitability for GCN of specific water bodies. This approach generates a numerical value for each waterbody from 0-1 that denotes the relative suitability for GCN (see Table 2.2). Methods involve recording values of 10 biotic and abiotic factors known to influence the potential presence and persistence of GCN within a habitat. While there has been significant criticism of Oldham’s “simple model” and its reliability in determining GCN presence/absence (O’Brien *et al.* 2017; Seccombe & Salguero-Gomez 2022), there remains significant empirical evidence that higher HSI scores are correlated with the likelihood of GCN occupancy (Burgess 2020; Buxton *et al.* 2021), rather than lower HSI scores predicting GCN absence. It is for this purpose that the HSI has been employed in this assessment—HSI scores below 0.7 will not be used to predict GCN absence.

Table 2.2 – GCN HSI scoring system

HSI Score	Waterbody Suitability for Breeding GCN
>0.8	Excellent – near optimal conditions for GCN and a very high chance of presence
0.7-0.79	Good – multiple habitat features suitable for GCN and a high chance of presence
0.6-0.69	Average – suitable for GCN but with features that may reduce carrying capacity
0.5-0.59	Below Average – some suitability for GCN but with significant unsuitable features
<0.5	Poor – less suitable conditions for GCN; other waterbodies are likely to be preferred

2.6 Limitations

The survey of the Site was conducted in January 2025, outside the optimal botanical assessment period and habitat survey season (April – September inclusive). Thus, it is considered there was a moderate risk of notable plant species, such as invasive non-natives, habitat characteristic species and protected species, being missed by this survey. However, onsite habitats were common and widespread in Britain and were not considered to present complex ecological communities, such as flora-rich woodland floors or lowland meadow, that would be misidentified outside the optimal botanical assessment period. Thus, it is estimated that a full and complete habitat assessment of the Site was conducted.

While searches of open source aerial imagery are useful resources to provide data on the Site and its surrounding landscape, there are inevitable situations where some features, such as garden ponds, are not detected and other features misidentified. These limitations are considered to be unavoidable when employing such tools, however, this assessment does not provide significant enough weight to the results of these searches that they would impact its findings.

References to protected species within this report do not constitute full protected species survey results and should not be treated as such.

3. Results

3.1 Desk Study

3.1.1 Designated Sites

No European statutory designated sites notified for bats were identified within 10 km, and one statutory designated site was identified within 5 km of the Site (Table 3.1). Two non-statutory designated sites were identified within 2 km of the Site (Table 3.2).

Table 3.1 – statutory designated sites

Site and Designation	Distance and Direction	Connectivity	Site Description and Ecological Features
Kendall's Meadow Site of Scientific Special Interest (SSSI)	682 m NE	Low – SSSI lies beyond a river corridor and multiple public roadways.	A 2.7 ha site containing traditionally managed hay meadow. The sward is dominated by common bent (<i>Agrostis capillaris</i>), red fescue (<i>Festuca rubra</i>) and crested dog's tail (<i>Cynosurus cristatus</i>). Herbs that are present include yellow rattle (<i>Rhinanthus minor</i>), great burnet (<i>Sanguisorba officinalis</i>) and cat's ear (<i>Hypochoeris radicata</i>). Over fifty plant species have been recorded including saw-wort (<i>Serratula tinctoria</i>) and green-winged orchid (<i>Orchis morio</i>).

Table 3.2 – non-statutory designated sites

Site and Designation	Distance and Direction	Connectivity	Site Description and Ecological Features
Meadow and Pond, Brook Farm Wildlife LWS	826 m SW	Low – LWS lies beyond an urban area and multiple public roadways	A 2.82 ha LWS containing a meadow and a pond. The meadow contains 7 indicator species which meet the criteria of a mesotrophic grassland including cowslip (<i>Primula veris</i>), meadowsweet (<i>Filipendula ulmaria</i>) and meadow vetchling (<i>Lotus corniculatus</i>). The pond contains 6 species which meets the criteria for a standing water body including common reedmace (<i>Carex sp.</i>) and pond sedge (<i>Carex flacca</i>).
Mill Verges Wildlife LWS	1,439 m NW	Low – LWS lies beyond an urban area and multiple public roadways	A 984 m long LWS consisting of two roadside verges. Plant species that occur include bird's-foot trefoil (<i>Lotus corniculatus</i>), black knapweed (<i>Centaurea nigra</i>) and meadow vetchling (<i>Lathyrus pratensis</i>). Pedunculate oak seedlings are present on both verges.

3.1.2 Priority and Notable Habitats

Priority Habitats (habitats of Principle Importance to biodiversity Conservation in England as outlined in Section 41 of the Natural Environment and Rural Communities Act 2006 (as amended)) that were identified within 1 km of the Site on Defra's MAGIC tool are shown in Table 3.3.

Table 3.3 – Priority Habitats

Habitat	Number, Distance and Direction of Closest Parcel	Connectivity
Traditional Orchards	1 parcel; 370 m SW	<u>Low</u> – Lies beyond a river corridor and multiple public roadways.
Lowland Fens	1 parcel; 506 m SW	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Lowland Meadows	2 parcels; 700 m NW	<u>Low</u> – Lies beyond a river corridor and multiple public roadways.
Deciduous Woodland	1 parcel; 980 m SE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.

One record of ancient and veteran tree was identified within 1 km of the Site. This related to a veteran pedunculate oak (*Quercus robur*) trees 935 m southeast of the Site. The connectivity of this record was estimated to be low owing to the presence of actively managed agricultural field complexes and urban dispersal barriers including public roadways.

It is considered that multiple native hedgerows and ponds within 1 km of the Site may meet the criteria of Priority Habitats.

3.1.3 European Protected Species Licences

Two granted Natural England European Protected Species Applications are present within 2 km of the Site. This relates to a GCN licence from 2012 until 2014 located 300 m southwest of the Site and a bat licence from 2011 until 2014 located 970 m southeast of

the Site. The connectivity of these records is estimated to be low owing to the presence of multiple urban dispersal barriers in the form of public roadways.

3.2 Field Study

3.2.1 UK Habitat Classification Survey

This section outlines all habitats recorded within the Site on the 15 January 2025. A plan depicting the onsite habitats, their extent and location, and relevant target notes are shown in Appendix B; photographs of the Site are shown in Appendix C.

Four UKHab habitat was identified within the Site:

- Modified grassland – g4 (Secondary codes: 10 – scattered scrub, 16 – tall forbs and 510 – bare ground).
- Other developed land – u1b6 (Secondary codes: 203 mature tree and 804 – car park)
- Buildings – u1b5 (Secondary code: 516 – active management).
- Other woodland – mixed – mainly broadleaved – w1h5 (Secondary code: 33 – line of trees).

3.2.1.1 Modified Grassland

The majority of the Site comprised an amenity field dominated by modified grassland (Photograph 6). The sward was dominated by perennial ryegrass (*Lolium perenne*) with frequent cocksfoot (*Dactylis glomerata*) and red fescue (*Festuca rubra*). Tall forbs included common nettle (*Urtica dioica*), hogweed (*Heracleum sphondylium*) and spear thistle (*Cirsium vulgare*). Scattered scrub present included bramble (*Rubus fruticosus*). Other forbs included creeping buttercup (*Ranunculus repens*), common dandelion (*Taraxacum officinale*), common ragwort (*Jacobaea vulgaris*), cow parsley (*Anthriscus sylvestris*) and dove's-foot crane's-bill (*Geranium molle*).

3.2.1.2 Other Developed Land

An area of sealed surface hardstanding used for car parking was present to the southeast of the Site (Photograph 7). A single mature tree was present to the north of the hardstanding, the tree had been chopped but had signs of regrowth (Photograph 8).

3.2.1.3 Buildings

There are 4 existing buildings within the Site. The buildings are regularly used and disturbed. Further details of onsite buildings are discussed in section 3.3.2.1.

3.2.1.4 Other Woodland – Mixed – Mainly Broadleaved

A planted line of deciduous trees was present along the Site's eastern, western and northern boundary (Photograph 9). This feature formed part of the vegetated modified grassland field. Species included common ash (*Fraxinus excelsior*), English yew (*Taxus baccata*), hawthorn (*Crataegus monogyna*) and Norway spruce (*Picea abies*). Most individual trees were at least semi-mature and appeared to be managed to some degree by pruning etc.

3.3 Protected and Notable Species Evaluation

A search of local biological records was conducted by Leicestershire and Rutland Environmental Records Centre (LREC) up to a distance of 2 km from the Site boundary. Only records within the last 10 were included in this assessment. Certain records were selected in this assessment in reference to their relative relevance to the Site and project proposals. Any records not accurate to 100 m or less are considered to fall below the spatial accuracy threshold for this investigation and are not considered further.

All records of species protected under the Conservation of Habitats and Species Regulations 2017 (as amended), the Natural Environment and Rural Communities Act

2006 (as amended), and the Wildlife and Countryside Act 1981 (as amended) were included in this assessment, as well as additionally selected notable species records.

3.3.1 *Badger*

The local records returned fourteen occurrences of badger. The closest of these records was from 2021 and was located 179 m northwest of the Site. The connectivity of these records is estimated to be low owing to the presence of multiple urban dispersal barriers in the form of public roadways.

While the Site does have habitat suitable for badger sett-building behaviour and suitable foraging habitat, the wider landscape around the Site, i.e. large complexes of agricultural fields, are considered to provide more optimal conditions for viable badger populations.

No evidence of badger was identified onsite at the time of survey. However, a badger sett with suspected active entrances was located 90 m west of the Site in a deciduous woodland copse (Photograph 10).

Therefore, it is considered that there is potential for the Site to support badger and impacts from the proposed works to this species may occur.

3.3.2 *Bat*

The Bat species that were returned by the local records are detailed in Table 3.4.

Table 3.4 – bat records

Species	Number of Records	Location & Direction (Closest Record)	Connectivity (All Records)
Common pipistrelle (<i>Pipistrellus pipistrellus</i>)	23	37 m SW	<u>High</u> – No major dispersal barriers.
Brown long eared bat (<i>Plecotus auritus</i>)	12	260 m SW	<u>Moderate</u> – Connected via vegetated gardens

Leisler's bat (<i>Nyctalus leisleri</i>)	1	260 m SW	<u>Moderate</u> – Connected via vegetated gardens
Natterer's bat (<i>Myotis nattereri</i>)	3	260 m SW	<u>Moderate</u> – Connected via vegetated gardens
Soprano pipistrellus (<i>Pipistrellus pygmaeus</i>)	8	260 m SW	<u>Moderate</u> – Connected via vegetated gardens
Nathusius's pipistrelle (<i>Pipistrellus nathusii</i>)	1	811 m SW	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Daubenton's bat (<i>Myotis daubentonii</i>)	2	817 m SW	<u>Low</u> – Lies beyond an urban area, river corridor, and multiple public roadways.
Noctule (<i>Nyctalus noctula</i>)	8	817 m SW	<u>Low</u> – Lies beyond an urban area, river corridor, and multiple public roadways.
Serotine (<i>Eptesicus serotinus</i>)	1	1, 402 m SW	<u>Low</u> – Lies beyond an urban area and multiple public roadways.

The Local records identified bats as locally present—a particularly high number of bat records were present in proximity to the Ashby canal and its associated habitat corridor.

3.3.2.1 Preliminary Roost Assessment

No onsite trees had potential roosting features for bats.

Details of all onsite buildings in the context of their suitability for roosting bats are shown in table 3.5.

Table 3.5 onsite buildings

Building	Suitability for roosting bats	Description
B1	Negligible	B1 was a commercial building present to the east of the Site (Photograph 11). B1 has a pitched tile roof with no gaps or other entrance features present. The interior is well lit, insulated, and regularly disturbed. The loft (Photograph 2) was well sealed and had no signs of roosting bats.
B2	Negligible	B2 was a garage present to the southeast of the Site (Photograph 2). B2 has a flat roof and is well sealed. The interior is well lit, well insulated and regularly disturbed.
B3	Negligible	B3 was a garage present to the northeast of the Site (Photograph 3). B3 has a flat roof and is well sealed. The interior is well lit, well insulated and regularly disturbed.
B4	Negligible	B4 is a dilapidated building present to the east of the Site (Photograph 4). and is highly exposed and disturbed. There is no roof present, and the front wall is missing with the other 3 walls partially gone.

There were no suitable roosting features for bats within the Site; no signs of roosting bats were identified at the time of the survey. Therefore, it is considering that potential for the Site to support roosting bats is negligible—no impacts from the proposed works to these species are anticipated.

It is estimated that more optimal habitat for foraging bat was present in the local vicinity in the form of more extensive hedgerows, woodland blocks, and waterbodies.

3.3.3 Birds

Birds that are protected or are Priority Species (species of Principle Importance to biodiversity Conservation in England as outlined in Section 41 of the Natural Environment and Rural Communities Act 2006 (as amended)) that were returned by the local records are detailed in Table 3.6.

Table 3.6 – bird records

Species	Number of Records	Location & Direction (Closest Record)	Connectivity (All Records)
Schedule 1			
Hobby (<i>Falco peregrinus</i>)	23	281 m NE	<u>Moderate</u> – Connected via vegetated gardens
Red Kite (<i>Milvus milvus</i>)	8	281 m NE	<u>Moderate</u> – Connected via vegetated gardens
Brambling (<i>Fringilla montifringilla</i>)	14	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Fieldfare (<i>Turdus pilaris</i>)	23	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Redwing (<i>Turdus iliacus</i>)	23	853 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Black Redstart (<i>Phoenicurus ochruros</i>)	2	1,026 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Kingfisher (<i>Alcedo atthis</i>)	28	1,026 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Barn owl (<i>Tyto alba</i>)	44	1,162 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways.

Peregrine (<i>Falco peregrinus</i>)	11	1, 706 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Green Sandpiper (<i>Tringa ochropus</i>)	14	1, 845 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Greenshank (<i>Tringa nebularia</i>)	4	1, 845 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Little Ringed Plover (<i>Charadrius dubius</i>)	29	1, 845 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Merlin (<i>Falco columbarius</i>)	1	1, 845 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Whimbrel (<i>Numenius phaeopus</i>)	3	1, 845 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Wood Sandpiper (<i>Tringa glareola</i>)	1	1, 845 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways.

Section 41 (Priority Species)

Cuckoo (<i>Cuculus canorus</i>)	12	281 m NE	<u>Moderate</u> – Connected via vegetated gardens
Curlew (<i>Numenius arquata</i>)	48	281 m NE	<u>Moderate</u> – Connected via vegetated gardens
Linnet (<i>Linaria cannabina</i>)	24	281 m NE	<u>Moderate</u> – Connected via vegetated gardens
Skylark (<i>Alauda arvensis</i>)	59	281 m NE	<u>Moderate</u> – Connected via vegetated gardens

Yellow wagtail (<i>Montacilla flava</i>)	13	281 m NE	<u>Moderate</u> – Connected via vegetated gardens
Lapwing (<i>Vanellus vanellus</i>)	85	362 m SW	<u>Moderate</u> – Connected via vegetated gardens
Yellowhammer (<i>Emberiza citrinella</i>)	84	798 m SW	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Tree Sparrow (<i>Passer montanus</i>)	53	819 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Bullfinch (<i>Pyrrhula pyrrhula</i>)	63	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Grey Partridge (<i>Perdix perdix</i>)	100	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
House Sparrow (<i>Passer domesticus</i>)	10	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Reed Bunting (<i>Emberiza schoeniclus</i>)	59	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Song Thrush (<i>Turdus Philomelos</i>)	36	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Starling (<i>Sturnus vulgaris</i>)	19	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Swift (<i>Apus apus</i>)	9	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.

Lesser Redpoll (<i>Acanthis cabaret</i>)	1	1,026 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Willow Tit (<i>Poecile montanus</i>)	4	1, 424 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Herring Gull (<i>Larus argentatus</i>)	2	1, 805 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Spotted Flycatcher (<i>Muscicapa striata</i>)	4	1, 805 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Tree Pipit (<i>Anthus trivialis</i>)	2	1, 845 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways.

The online opensource tool Swift Mapper identified no records of swift (*Apus apus*) within 2 km of the Site.

While records of notable and protected birds are present within the zone of influence for these taxa, they are relatively low in numbers and opportunities for these species within the small amenity grassland of the Site are negligible. Nevertheless, all British birds are protected while nesting and habitats such as a line of trees and scattered scrub offer some potential to support nesting birds.

Therefore, it is considering that nesting birds may be present within the Site and be impacted by the proposed works.

3.3.4 Great Crested Newt

The local records identified 11 location records of great crested newt (GCN) populations.

The closest record was from 2019 and located 575 m southeast of the Site. The connectivity of these records is estimated to be low owing to multiple urban dispersal barriers in the form of public roadways.

No water waterbodies are present within the Site. One pond was identified within 250 m of the Site boundary by opensource aerial imagery and mapping. This is detailed in Table 3.7.

Table 3.7 – ponds within 250 m of the Site

Pond	Distance and Direction	Habitat Suitability Index Score	Connectivity	Site Description and Ecological Features
P1	90 m E	0.59 – below average	Moderate – P1 lies beyond an agricultural field parcel.	P1 (Photograph 11; TM 39543 97324) lies within a woodland block next to a residential garden. As such surface runoff is considered unlikely to be high and or negatively impact the water quality. Marginal vegetation was dominated by bramble (<i>Rubus fruticosus</i>) and semi-mature deciduous trees, including common ash (<i>Fraxinus excelsior</i>). The pond contained a lot of woody debris and therefore relatively shaded.

Habitats within the Site have potential to support great crested newt in their terrestrial phase in the form of grassland, scattered scrub and a treeline.

Considering the presence of suitable habitat for breeding GCN (meta)populations in the landscape around the site, and the resources for this species within the Site and in adjacent habitats, it is estimated that there is a moderate risk of great crested newt utilising the Site.

Therefore, it is considered that GCN may be present within the Site and be impacted by the proposed works.

3.3.5 Hazel Dormouse

No occurrences of hazel dormouse were returned in the local records. The onsite native tree line was isolated and unsuitable for viable hazel dormouse populations—this species has a naturally low population density, 1.75-2.5 individuals per ha on average (Bright *et al.* 2006) and therefore generally requires larger blocks of suitable habitat (or connected areas of habitat) to support breeding populations.

Therefore, it is considered that the potential for the Site to support breeding hazel dormouse is negligible—no impacts from the proposed works to this species are anticipated.

3.3.6 Invertebrates

43 records of an invertebrate Priority Species were returned from the local records and are detailed in table 3.8.

Table 3.8 – invertebrate records

Species	Number of Records	Location & Direction (Closest Record)	Connectivity (All Records)
Cinnabar (<i>Tyria jacobaeae</i>)	13	308 m NE	<u>Moderate</u> – Connected via vegetated gardens

White Admiral (<i>Limenitis Camilla</i>)	1	317 m SW	<u>Moderate</u> – Connected via vegetated gardens
Grey Dagger (<i>Acronicta psi</i>)	2	465 m NE	<u>Moderate</u> – Connected via vegetated gardens
Beaded Chestnut (<i>Agrochola lychidis</i>)	39	858 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Blood-vein (<i>Timandra comae</i>)	34	858 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Brindled beauty (<i>Lycia hirtaria</i>)	14	858 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Broom moth (<i>Melanchtra pisi</i>)	4	858 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Brown-spot pinion (<i>Anchoscelis litura</i>)	8	858 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Buff Ermine (<i>Spilosoma lutea</i>)	51	858 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Centre-barred Sallow (<i>Atethmia centrago</i>)	25	858 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Dark-barred twin-spot carpet (<i>Xanthorhoe ferrugata</i>)	1	858 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Deep-brown Dart (<i>Aporophyla lutulenta</i>)	24	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways

Dot Moth (<i>Melanochra persicariae</i>)	7	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Double Dart (<i>Graphiphora augur</i>)	3	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Dusky Brocade (<i>Apamea remissa</i>)	1	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Dusky Thorn (<i>Ennomos fuscantaria</i>)	39	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Flounced Chestnut (<i>Anchoscelis helvola</i>)	1	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Ghost Moth (<i>Hepialus humuli</i>)	7	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Green-brindled Crescent (<i>Allophyes oxyacanthalae</i>)	11	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Knot Grass (<i>Acronicta rumicis</i>)	10	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Large Nutmeg (<i>Apamea anceps</i>)	24	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Large Wainscot (<i>Rhizedra lutosa</i>)	6	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways

Latticed Heath (<i>Chiasmia clathrata</i>)	10	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Mottled Rustic (<i>Caradrina morpheus</i>)	43	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Mouse Moth (<i>Amphipyra tragopoginis</i>)	9	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Oak Hook-tip (<i>Watsonalla binaria</i>)	7	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Pale Eggar (<i>Trichiura crataegi</i>)	8	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Powdered Quaker (<i>Orthosia gracilis</i>)	10	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Rosy Minor (<i>Litoligia literosa</i>)	5	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Rosy Rustic (<i>Hydrea micacea</i>)	47	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Rustic (<i>Hoplodrina blanda</i>)	44	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Sallow (<i>Cirrhia icteritia</i>)	8	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways

September Thron(<i>Ennomos erosaria</i>)	2	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Shaded Broad bar (<i>Scotopteryx chenopodiata</i>)	5	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Shoulder-striped Wainscot (<i>Leucania comma</i>)	28	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Small Phenix (<i>Ecliptopera silace</i>)	6	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Small Square-spot (<i>Diarsia rubi</i>)	58	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Spinach (Eulithis mellinata)	1	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Sprawler (<i>Asteroscopus sphinx</i>)	2	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
White Ermine (<i>Spilosoma lubricipeda</i>)	39	858 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Small Heath (<i>Coenonympha pamphilus</i>)	84	996 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways
Wall (<i>Lasiommata megera</i>)	2	996 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways

White-letter Hairstreak (<i>Satyrrium w-album</i>)	2	1, 907 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways
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The larval foodplants of small heath, latticed heath and white ermine, nettles, clovers and fine grasses such as fescues and meadow grasses, are likely common and widespread in the vicinity of the Site. However, the relatively small scale and low impact nature of the proposed works is not considered likely to impact these butterflies and moths or their habitat resources. Moreover, the periphery habitats that contain this forage are likely to be largely retained within the proposals.

No other notable invertebrate species were recorded on the Site and the onsite habitats are not deemed suitable to support other notable and protected invertebrates such as Roman snail.

Table 3.9 outlines an adaptation of Jukes (2021) good practice guidance on invertebrate ecology surveying on initial site assessments regarding the results of the Site survey.

Table 3.9 – Jukes (2021) criteria for good invertebrate sites

Criteria of Good Invertebrate Habitat	Site Passes Criteria (Y/N)	Rationale
Range of habitat types or features	Y	Building, hardstanding, modified grassland, scattered scrub, bare ground, and semi-mature trees are present within the Site.
Structural variation within habitats	N	Onsite habitats were relatively uniform.
Variation in topography	N	The Site was a flat parcel of land.
Abundance of flowering plants	N	A poor diversity and abundance of flowering plants was present within the Site.
Availability of sunlight	Y	The Site is largely open with sunlight being readily available.

The Site does not lie within a Buglife Important Invertebrate Area and does not lie within a B-line.

Considering the lack of suitable onsite habitat, and the relatively small scale and low impact nature of the proposed works, it is estimated that the potential for the Site to support and impact protected invertebrates is negligible—no impacts from the proposed works to these species are anticipated.

3.3.7 Other Mammals

Two occurrences of other notable mammals were returned from the local records and are detailed in 3.10

Table 3.10 – other mammal records

Species	Number of Records	Location & Direction (Closest Record)	Connectivity (All Records)
Hedgehog (<i>Erinaceus europaeus</i>)	4	364 m NE	<u>Moderate</u> – Connected via vegetated gardens
Hare (<i>Lepus europaeus</i>)	6	1, 559 m NE	<u>Low</u> – Lies beyond an urban area and multiple public roadways

While the Site would not have the large open habitats required to support brown hare, the grassland habitats and tree line would be suitable for breeding and foraging hedgehog.

Therefore, it is considered that breeding and foraging hedgehog may be present within the Site and be impacted by the proposed works.

3.3.8 Plants

Three records of vascular plants listed under Schedule 8 or 9 of the Wildlife and Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2017 (as amended), or the Natural Environment and Rural Communities Act 2006 (as amended) were returned by the local record search and are detailed in table 3.11.

Table 3.11 - plant species

Species	Number of Records	Location & Direction (Closest Record)	Connectivity (All Records)
Common Rhododendron (<i>Rhododendron ponticum</i>)	1	970 m SE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Japanese Knotweed (<i>Fallopia japonica</i>)	4	1, 275 m SE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Yellow Archangel (<i>Lamiastrum galeobdolon subsp. argentatum</i>)	1	1, 275 m SE	<u>Low</u> – Lies beyond an urban area and multiple public roadways.

No protected, notable, or invasive vascular plant species were recorded onsite at the time of survey.

No impacts from the proposed works to these species are anticipated.

3.3.9 Reptiles

Two occurrences of reptile were returned from the local records search and are detailed in table 3.12.

Table 3.12 – *reptile* species

Species	Number of Records	Location & Direction (Closest Record)	Connectivity (All Records)
Adder (<i>Vipera berus</i>)	1	1, 479 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways.
Grass Snake (<i>Natrix helvetica</i>)	1	1, 907 m NW	<u>Low</u> – Lies beyond an urban area and multiple public roadways.

Habitats within the Site suitable for common and widespread reptiles were present in the form of basking and commuting resources within the onsite grassland, scattered scrub and suboptimal sheltering habitat provided by the tree line. The bare ground had potential to be used as a basking resource. There are no significant dispersal barriers that would inhibit reptiles commuting to/from the Site from the surrounding landscape.

Therefore, it is considered that there is potential for the Site to support reptiles. Impacts from the proposed works to these species are possible.

3.3.10 Watercourse Species

Two records of beaver, fish, otter, water vole, or white-clawed crayfish were returned from the local records search and are detailed in table 4.3.

Table 4.3– watercourse species

Species	Number of Records	Location & Direction (Closest Record)	Connectivity (All Records)
Otter (<i>Lutra lutra</i>)	10	345 m NW	<u>Low</u> – Lies beyond an urban area, river corridors and multiple public roadways.
Water Vole (<i>Arvicola amphibius</i>)	23	538 m NW	<u>Low</u> – Lies beyond an urban area, river

corridors and multiple public roadways.

There were no watercourses within the Site.

Therefore, it is considered that the potential for the Site to support watercourse species is negligible—no impacts from the proposed works to these species are anticipated.

3.4 Evaluation

Evidenced by the results of this assessment, Table 4.4 outlines the various ecological features associated with the Site and project proposals and determines the need for further actions.

Table 4.4– ecological feature evaluation

Ecological Feature	Further consideration	Rationale
Designated sites	No	The identified designated and non-designated sites are considered to be located relatively far from the Site with generally low connectivity. The project proposals are small scale and low impact and are therefore considered to have negligible potential to impact designated sites.
Priority Habitats	No	As the proposed project does not involve the removal of large areas of habitat or extensive development, no impacts to these habitats are anticipated.
Onsite habitats	No	All onsite habitats are common and widespread within Britain. Potential to support nesting birds and great crested newt was identified.
Badger	Yes	Evidence of an offsite badger sett was recorded at the time of the survey.
Bat	No	The onsite habitats and features are considered to have negligible potential to support roosting bats.

		The wider landscape is estimated to have myriad opportunities for foraging and commuting bats.
Birds	Yes	Onsite scattered shrubs and the tree line have potential to support nesting birds.
Great crested newt	Yes	One pond was present within 250 m and habitats within the Site are considered to have potential to support great crested newt in their terrestrial phase.
Hazel dormouse	No	No stands capable of supporting viable hazel dormouse populations were present within the Site or within adjacent habitats.
Invertebrates	No	Habitats within the Site offer relatively little resources for common and widespread invertebrate species.
Other mammals	Yes	Habitats within the Site may support commuting, foraging and sheltering hedgehog. Feature only considered further in regard to hedgehog.
Plants	No	No protected, notable or invasive plants were recorded within the Site.
Reptiles	Yes	Onsite habitats had potential to support basking, commuting, and sheltering behaviour in the form of scattered scrub and a treeline.
Watercourse species	No	There are no watercourses or riparian zone habitats within the Site.

4. Outputs and Opportunities

4.1 Further Work & Surveys

The following recommendations are required regarding protected species within the Site.

The outputs will inform more detailed mitigation and potential licencing recommendations in the context of the project proposals.

4.1.1 *Nesting bird*

Clearance/management of any onsite vegetation higher than 300 mm should take place outside of the core nesting bird season (March-August inclusive). **If this cannot be achieved**, it is recommended that a pre-works check by a suitably qualified ecologist should take place within 48 hrs prior of any works.

Any identified nests may need to be buffered by 5 m, or greater, exclusion zones where no works can take place until the young have fledged or the nest is deemed to be no longer active.

4.1.2 *Non-licensed Method Statement*

To discharge the potential risks to great crested newt, badger, and reptiles, a Non-licensed Method Statement (NLMS) should be produced that will outline appropriate mitigation and protection measures to be employed during the project phases. The NLMS should include a pre-works check by a suitably qualified ecologist to identify potential constraints associated with the target species, e.g. evidence of badger sett building within the Site.

It is considered that if the details outlined in the NLMS are upheld through the project phases, the proposals will not impact protected or notable species and no further ecological surveys will be required.

4.2 Mitigation

4.2.1 Hedgehog

Any refugia with potential to be used by hedgehog, such as vegetation piles and scrub, should be avoided by the works. If individual hedgehog are encountered within the works area, **all works must stop** and a suitably qualified ecologist consulted before proceeding.

4.2.2 General Animal Protection Measures

The following measures should be adhered to throughout the project to protect local fauna:

- If any potentially protected, notable or vulnerable animals, such as newts, bats, or reptiles, are encountered in the works area or in directly adjacent habitats, **all works must stop** and a suitably qualified ecologist consulted before proceeding.
- Any trenches/excavations to be covered overnight or a means of escape for fauna provided. Ramps should not exceed 45 degrees steepness.
- Creation of unintended habitat features that may be used by terrestrial fauna, e.g. spoil piles and brash piles, to be avoided during works where possible.
- No works to take place between sunset and sunrise.
- Avoidance of artificial lighting after dusk to minimise potential impacts to nocturnal fauna—lighting scheme to be in line with guidance set-out in Institution of Lighting Professionals (2023).

4.2.3 General Environmental Protection Measures

The following measures should be adhered to throughout the project to protect the local environment:

- Avoid unnecessary chemicals, herbicides, pesticides, vermicides and creating debris on the Site as these substances could harm wildlife. Liquid chemicals could further drain into the groundwater, causing contamination of the wider landscape.
- Plant, equipment, and/or materials should be stored on areas of hardstanding where possible.
- Fuel considerations to avoid leakage and pollution of the local environment:
 - All equipment, machinery and/or plant used in the scope of the proposed works should be fitted with fuel drip trays where possible.
 - All storing of fuel and re-fuelling of equipment, machinery and/or plant should take place with the use of drip-capture devices.
 - All onsite personnel should have access to spill mitigation devices for other equipment capable of leaking fuel or oil.
- Activities generating dust should be avoided or dampened where possible.

4.3 Enhancement

All enhancements set out in this section seek to uplift biodiversity—the variability within and among living organisms, species and ecosystems—local to the Site. These recommendations will adhere to the principles and guidance set-out in The National Pollinator Strategy: for bees and other pollinators in England (Defra 2014), the Environmental Improvement Plan (Defra 2023a), Making Space for Nature: A review of England's Wildlife Sites and Ecological Network (Lawton *et al.* 2010), and the National Planning Policy Framework (Department for Leveling Up, Housing & Communities 2023), among other documents, as well as following standing advise from Buglife, Championing the Farmed Environment, the Environment Agency, Farm wildlife, Hedgelink, Natural England, and the People's Trust for Endangered Species.

4.3.1 Taxa-specific Biodiversity Enhancement Opportunities

The proposed works have potential to provide taxa-specific enhancements to benefit local biodiversity in the following recommended ways:

- Artificial bird boxes to benefit threatened, protected and notable species. To include features for swift, starling, and barn owl, among other species. Boxes to be affixed to buildings or mature trees.
- Artificial bat boxes to benefit all bat species. Boxes to be affixed to buildings, mature trees, or to be pole mounted.
- Features for invertebrates to provide novel resources for a variety of niches. To include deadwood features, seed sowing and general planting for pollinators, and artificial nesting habitat for solitary bees.

4.3.2 General Biodiversity Enhancement Opportunities

The following measures are recommended to provide supplementary enhancements to benefit local biodiversity:

- Proposed new building structures within the project should seek to include biodiverse green roofs to benefit local wildlife, particularly bats, birds, and insects.
- Habitat Aid Woodland Edge Seed Mix (available from: habitataid.co.uk) should be sown on areas of landscaping and bare ground where possible within the scheme.
- Where biological resources are used on Site, such as wood for fences, materials should be sustainable and locally sourced where possible; Forestry Stewardship Council certified for timber resources.
- Avoid transporting offsite soil onto the Site. Where unavoidable, ensure that soil is peat free and suitable for the proposed transplant location. Peat free soil/compost retains water reducing the amount of watering required, it also releases nutrients

slowly and has a reduced impact on the environment when compared with compost containing peat.

- Avoid pollutants and general litter/debris which can cause harm to wildlife.
- Naturally occurring vertebrate carcases to be left in situ if deemed not to be a danger to public health. This promotes necrobiome ecology and encourages taxa such as fungi and beetles—keystone species in woodland habitats (Mondor *et al.* 2012).

References

Methods & Professional Standards

- **Amphibian and Reptile Groups of the UK (2010)** *Advice Note 5: Great Crested Newt Habitat Suitability Index*. London, Amphibian and Reptile Groups of the UK.
- **British Standards (2012)** *BS 5837: 2012 – Trees in relation to design, demolition and construction*. London, British Standards Institution.
- **British Standards (2020)** *BS 42020: 2013 - Biodiversity Code of Practice for Planning and Development*. London, British Standards Institution.
- **British Standards (2021)** *BS 8683: 2021 - Process for designing and implementing Biodiversity Net Gain*. London, British Standards Institution.
- **CIEEM (2017a)** *Guidelines for Preliminary Ecological Appraisals* (2nd Edition). Winchester, CIEEM.
- **CIEEM (2017b)** *Guidelines on Ecological Report Writing* (2nd Edition). Winchester, CIEEM.
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APPENDIX A: Planning Policy & Legislation

Relevant Planning Policy

National Planning Policy Framework 2023

Section 15 of the NPPF states that planning policies and decisions should contribute and enhance the natural and local environment by:

- Protecting and enhancing sites of biodiversity value.
- Recognising the character and beauty of the countryside and the benefits of natural capital and ecosystem services.
- Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks.
- Preventing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans.

This section goes on to recommend that plans should:

- Distinguish between international, national and locally designated sites.
- Allocate land with the least environmental or amenity value.
- Maintain and enhance habitats and green infrastructure networks.
- Enhance natural capital at a catchment or landscape scale across local authority boundaries.
- Give weight to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty.
- Map and safeguard components of local wildlife-rich habitats and wider ecological networks, including wildlife corridors and stepping stones, and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation.
- Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species.

Hinkley and Bosworth Joint Local Plan

Policy SP24 – Protecting biodiversity states that development must:

- safeguard international and national designated sites, irreplaceable habitats and locally important sites by only permitting development at these sites in exceptional circumstances only. Development proposals should not have an adverse impact on the river Mease Special Area of Conservation (SAC).
- seek to protect and enhance sites of biodiversity and geological conservation interest and requires local plans to distinguish between the hierarchy of international, national and locally designated sites and the protection afforded to them.
- consider separate legislation, acts, regulations, planning guidance and any subsequent replacement Supplementary Planning Documents and laws preventing interference with protected species. They should also be aware of the need to undertake relevant assessments, studies and surveys as required prior to the submission of a planning application. All proposals should consider protection and enhancement of biodiversity from the outset and seek to protect features such as trees, hedgerows, ponds and woodland.
- where there is a reason to suspect the presence of protected species, development proposals should be accompanied by a protected species survey undertaken by a suitably qualified ecologist and submitted with the application. The survey should include an appraisal of the likelihood and level of presence of the protected species.

Main Environmental and wildlife Legislation (England)

Environment Act 2021

Schedule 14 of The Environment Act 2021 makes it mandatory for all new developments (with some limited exceptions) to achieve a biodiversity net gain (BNG) of at least 10% by the time the development is completed compared to the pre-development biodiversity value of the onsite habitat. This percentage may be amended in the future by the Secretary of State.

Conservation of Habitats and Species regulations 2017 (as amended).

Section 43 of Part 3 of this legislation makes it an offence to do any of the following with regards to European Protected Species (animals) as listed on Schedule 2:

- Deliberately capture, injure or kill any wild animal of a European protected species.
- Deliberately disturb wild animals of any such species.
- Deliberately takes or destroy the eggs of such an animal.
- Damage or destroy a breeding site or resting place of such an animal. (*Note: no intentionality is necessary to prosecute this activity*).

Section 43 of Part 3 of this legislation makes it an offence to do any of the following with regards to European Protected Species (plants) as listed on Schedule 5:

- Deliberately pick, collect, cut, uproot or destroy a wild plant of a European Protected Species.
- Be in position of or to transport said plant.

Natural Environment and Rural Communities Act (as amended).

Section 40 of Part 3 of this act compels public bodies (local authorities, police, fire and health authorities, and utility companies) with exercisable functions within England to consider actions to be taken to conserve and enhance biodiversity in England—in particular to have regard to the United Nations Environmental Programme Convention on Biological Diversity of 1992, any relevant local nature recovery strategies, and any relevant species conservation strategy or protected site strategy (prepared by Natural England).

Section 41 of Part 3 of this Act ensures the publishing of a list containing species and habitat types that are of principle importance for the purpose of conserving or enhancing biodiversity in England.

Wild Mammals (Protection) Act 1996.

Under this legislation it is an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with the intent to inflict unnecessary suffering.

Protection of Badgers Act 1992

Under this legislation it is an offence to (or intend to, or to be reckless as to whether your actions would have these consequences):

- Wilfully kill, injure or take a badger (or attempts to do so).
- Damage or destroy any part of a badger sett. (Note: no intentionality is necessary to prosecute these activities).
- Obstruct access to a badger sett. (Note: no intentionality is necessary to prosecute these activities).
- Disturb a badger when it is occupying a sett. (Note: no intentionality is necessary to prosecute these activities).

Wildlife and Countryside Act 1981 (as amended).

Part 1 of this act makes it an offence to intentionally or recklessly kill, injure or take any wild bird, to take, damage or destroy the nest of any wild bird while that nest is in use or being built, and/or to take or destroy an egg of any wild bird.

Part 1 also makes it an offence to intentionally or recklessly disturb any wild bird included in Schedule 1 of the act, and to take, damage, or destroy the nest of any wild bird included in Schedule ZA1.

Schedule 5 lists non-avian species that are afforded various protections under Sections 9.1a, 9.1b, 9.2, 9.4a, 9.4a (Whales), 9.4b, 9.4c, 9.5a and 9.5b.

Schedule 8 lists plant species that are protected from intentionally picking, uprooting or destroying under Section 13.

Schedule 9 lists non-native invasive plants for which it is an offence under Section 14 to plant or otherwise cause to grow in the wild any part of said plants. (Note: no intentionality is necessary to prosecute these activities).

Other Legislation (England)

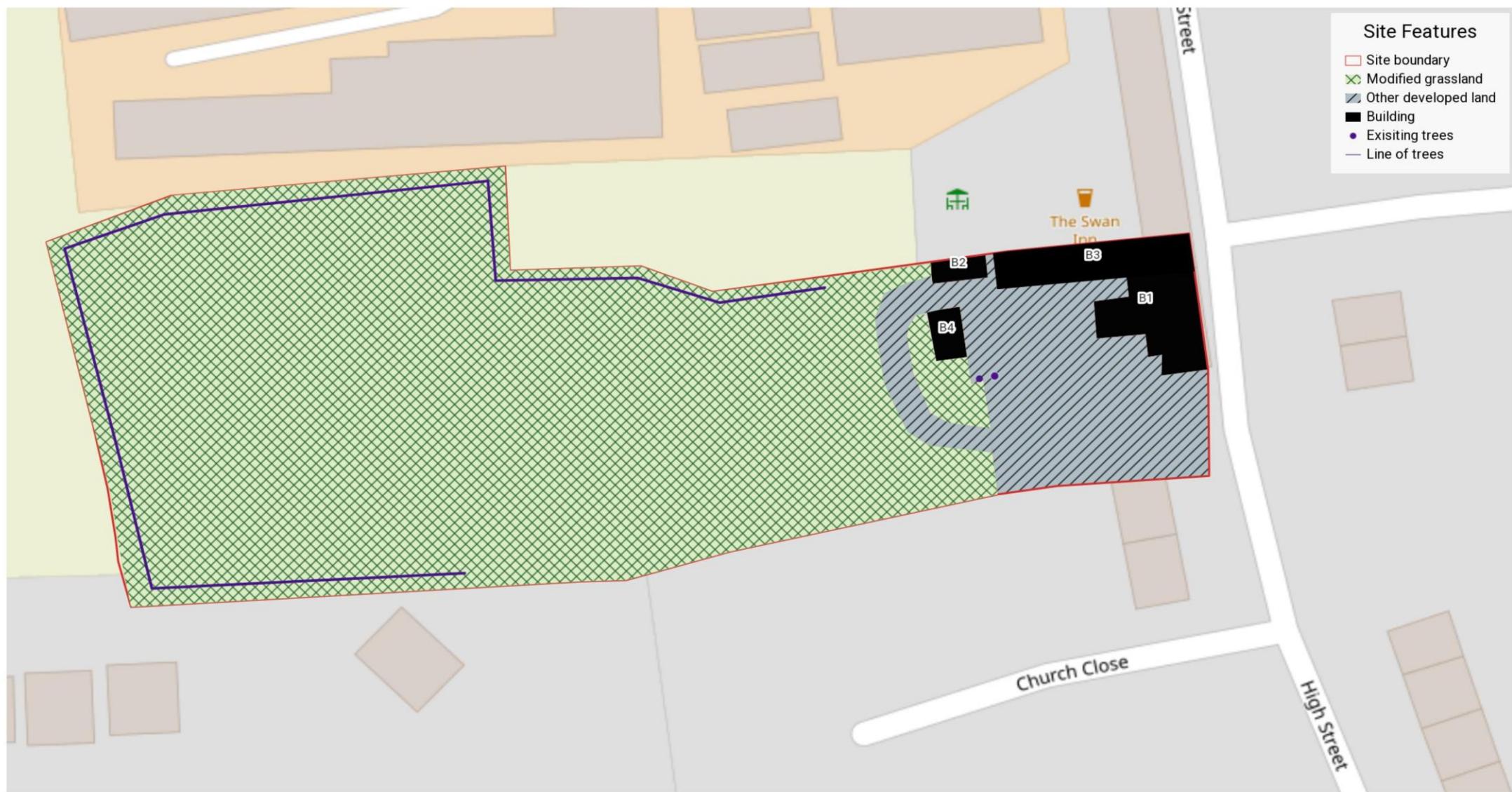
- **The Environmental Impact Assessment (EIA) Regulations 2017**
- **Anti-social Behaviour Act 2003** (as amended).
- **Countryside and Rights of Way Act 2000**

- **Hedgerows Regulations 1997.**
- **Weeds Act 1959.**

APPENDIX B: Site Habitat Plan

See overleaf

Plans are indicative approximations of the layout of onsite habitats and are not drawn to measurable scale.



APPENDIX C: Photographs



Photograph 1: B1 in the south of the Site



Photograph 2: Internal loft void of B1



Photograph 3: B2 in the southeast of the Site.



Photograph 4: B3 in the southeast of the Site



Photograph 5: B3 in the south of the Site



Photograph 6: Modified grassland to the north of the Site



Photograph 7: Hardstanding to the southwest of the Site.



Photograph 8: An individual mature tree to the south of the Site.



Photograph 9: Line of tree present to the north, eastern and western Site boundaries.



Photograph 10: An active badger sett was present 90 m east from the Site



Photograph 11: P1 present 90 m east from the Site