



PRELIMINARY ECOLOGICAL APPRAISAL REPORT

CONTAINS CONFIDENTIAL BADGER INFORMATION

SITE LOCATION

The Old Rectory,
Rectory Lane,
Nuneaton,
CV13 0LS

ISSUE DATE

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NOTE:

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EXECUTIVE SUMMARY

Site Address	The Old Rectory, Rectory Lane, CV13 0LS
Grid Reference	SJ 35038 89210
Approximate Site Area	5150m ²
Current Site Use	Vacant residential building with associated garden and driveway.
Designated Sites within Zone of Influence	The site is located in the impact zone of; Ashby Canal Site of Special Scientific Interest located approximately 2.5km north west from the site boundary, Kendall's Meadow SSSI located approximately 4.8km south west from the site boundary and the River Mease SSSI located approximately 10km north west of the site boundary.
Notable Habitat Features	Line of trees considered notable.
Notable species applicable to this assessment	• Bats • Breeding birds • Terrestrial Mammals • Common and Notable Amphibians
Recommendations for Further Survey and Mitigation	• A nesting bird check should be undertaken if any trees or buildings are to be removed within the nesting bird season (March – September inclusive). • A sensitive lighting strategy should be adopted for the boundary features. • A pre commencement check for badger setts should be undertaken. • Reasonable avoidance measures for reptiles, amphibians, badgers and hedgehogs. • A 20m buffer to be maintained from the disused badger sett.
Recommended Further Survey	The Building was assessed as having high bat roosting potential. As such, it is recommended that a minimum of three further surveys are completed, following guidance set out in Collins (2016). The surveys are constrained between May to September.

TABLE OF CONTENTS

1. Introduction.....	6
1.1. Scope & Purpose.....	6
1.2. Location	6
1.3. Objectives	6
1.4. Proposed Development	6
2. Methodology.....	7
2.1. Desk Study.....	7
2.2. Vegetation & Habitat Assessment.....	7
2.3. Protected & Notable Species Assessment	7
2.4. Bat Activity Assessment	8
2.5. Preliminary Roost Assessment	8
2.6. Habitat Suitability Index.....	9
2.7. Survey Limitations	9
3. Survey Results	10
3.1. Site Context	10
3.2. Designated Sites	10
3.3. Priority Habitats	11
3.4. Habitats.....	11
4. Species.....	15
4.1. Flora.....	15
4.2. Invertebrates	15
4.3. Amphibians	15
4.4. Reptiles	17
4.5. Birds.....	17
4.6. Bats	17
4.7. Badger.....	21
4.8. Other Terrestrial Mammals	21
4.9. Non-Native Invasive Species	21
4.10. Species Discounted from Assessment	21
5. Recommendations and Mitigation.....	22
5.1. Designated Sites	22
5.2. Habitats.....	22
5.3. Amphibians	22
5.4. Reptiles	22

5.5.	Birds.....	23
5.6.	Bats	23
5.7.	Badgers.....	24
5.8.	Other Terrestrial Mammals	24
5.9.	Further Surveys Required	25
5.10.	Conclusion	25
6.	Bibliography	26

1. Introduction

1.1. Scope & Purpose

- 1.1.1. Seed Arboriculture Ltd were commissioned by Witherslack Group to undertake a Preliminary Ecological Appraisal (PEA) at The Old Rectory, Rectory Lane, Nuneaton, CV13 0LS. This report has been prepared to inform an outline planning application for a proposed school.
- 1.1.2. The author of this report is Katie Bird MEnvSci, ACIEEM Principal Ecologist. Katie is highly experienced managing schemes and has produced many ecological reports to inform planning management plans.

1.2. Location

- 1.2.1. Please refer to Figure 1 for the site location. The site is located within a residential area of Market Bosworth with agricultural fields on the southern aspect of the site boundary. The site is bound by Rectory Lane to the north.



Figure 1 - Site Location Plan

1.3. Objectives

- 1.3.1. The objectives of the Preliminary Ecological Appraisal are as follows:
- Identify the major habitats present.
 - Ascertain the presence or potential presence of any legally protected or notable species or habitats.
 - Identify any mitigation required and opportunities for strategic wildlife enhancements.

1.4. Proposed Development

- 1.4.1. This report has been prepared to inform an outline planning application for a proposed school. Designs provided include the creation of a car park, classroom block and multi-use recreational area.

2. Methodology

2.1. Desk Study

2.1.1. An initial desk-based assessment of the site was undertaken to collate baseline data. The desk study included:

- Review of Magic.gov.uk website for details of any designated sites, notable habitats and presence of European Protected Species Licences.
- Review of aerial and OS maps for habitat information, as well as determining locations of potential waterbodies to be considered in the assessment.
- Review of potential habitat links on and off site, to determine the potential zone of influence of the proposed development.
- A 1 km data search was undertaken by obtaining records from the local Environmental Records Centre Leicestershire and Rutland Environmental Records Centre (LRERC)

2.1.2. The above sources of information were used to make a judgement of the sites potential value for notable species and habitats.

2.2. Vegetation & Habitat Assessment

2.2.1. An Ecological Appraisal of the site was undertaken by Katie Bird MEnvSci, ACIEEM, Principal Ecologist. The survey was undertaken on 16th March 2023. Weather conditions were overcast (8/8 oktas), dry, 12°C and moderate wind speed.

2.2.2. The walkover survey was undertaken broadly in line with standard UK HAB Methodology. The assessment is undertaken with consideration of methodology as per “Preliminary Ecological Appraisal” (CIEEM, 2018).

2.2.3. A UK HAB Plan has been produced and is presented in the Appendix of this report. Standard methodology has been used, though adjustments have been made based on judgement to demonstrate habitats in a clearer manner, or where standard guidance does not fit the conditions found on site.

2.3. Protected & Notable Species Assessment

2.3.1. A search for signs of protected and notable species of fauna was undertaken during the site walkover. This included both field signs of species, as well as potential for species to be present based on habitat availability.

2.3.2. The searches broadly included the following:

- Assessment of waterbodies and terrestrial habitats for suitability to support notable amphibians.
- Searches for field signs of, and habitat suitability for bats.
- Suitability of habitats to support reptiles, and searches for incidental field signs.
- Searches for field signs of badger, including setts, mammal paths, snuffle holes, badger hair and latrines to indicate activity.
- Searches of watercourses for signs of water vole and otter, and assessment of habitat availability for the species.
- Assessment of the suitability of the site to support notable bird species and recording any field sightings of birds during the walkover.

- Assessment of the sites ability to support notable invertebrates.
- Searches for non-native invasive species.

2.4. Bat Activity Assessment

2.4.1. The commuting and foraging assessment methodology is based on information contained within the Bat Conservation Trust guidelines 3rd edition (Collins, 2016). The categorisation within this report is based on that set out in Table 1, which is used as a basis for determining the requirement for further surveys and/or mitigation.

Table 1 – Bat Activity Assessment

Bat Roosting Potential	Description
Negligible	No features on site suitable for use by commuting and foraging bats.
Low	Habitat that could be used by small number of commuting bats such as; defunct hedgerow, isolated features not well connected to surrounding habitat or isolated habitat that could be used by a small number of foraging bats such as a lone tree or patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by commuting bats such as lines of trees, scrub or linked back gardens. Habitat connected to wider landscape that could be used for bats for foraging such as; trees, scrub, grassland or water.
High	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting or foraging bats such as; river valleys, streams, hedgerows, lines of trees or woodland edge. Site is close to or connected to known roosts.

2.5. Preliminary Roost Assessment

- 2.5.1. A Preliminary Roost Assessment (PRA) of the site was undertaken by Katie Bird who holds a Class 2 Bat Survey Licence from Natural England (Reference 2020-48950-CLS-CLS).
- 2.5.2. The survey was undertaken following guidance set out in Collins (2016). This includes undertaking a detailed internal and external inspection of any features to compile information on potential and actual bat entry/ exit points, roosting locations and evidence of bats. The buildings were assessed as per categories listed in Table 4.1 Collins (2016) and reproduced in **Table 2**.

Table 2 – Preliminary Roost Assessment

Bat Roosting Potential	Description
Negligible	Negligible features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/ or suitable surrounding habitats to be used on a regular basis by larger numbers of bats.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats, but unlikely to support a roost of high conservation status.
High	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 for longer periods of time.

2.6. Habitat Suitability Index

2.6.1. Ponds within 250m of the site boundary underwent a Habitat Suitability Index (HSI) assessment following the methodology set out in ARG UK Advice Notice 5 (Oldham et al., 2010). Ten habitat suitability indices were assessed and inputted into the HSI equation, which generates a score between 0 and 1. The calculated score corresponds to the estimated pond suitability for great crested newt.

2.7. Survey Limitations

- 2.7.1. This survey does not constitute a full botanical survey. Key species for each habitat type have been identified to give a broad representation of habitats present within the site.
- 2.7.2. It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation of the natural environment. This survey does not constitute a full botanical survey. Plant species may have been under-recorded, unidentifiable or not visible due to a number of factors including the time of year the survey was carried out.
- 2.7.3. The protected species assessment provides a preliminary view of the likelihood of protected species occurring on the site. This is based on the suitability of the habitat, known distribution of the species in the local area (provided by data searches) and any direct evidence within the survey area.
- 2.7.4. A full inspection of the loft void of the Building was not possible due to health and safety reason. An inspection was completed where safe to do so, and this constraint has been considered within the assessment.

3. Survey Results

3.1. Site Context

- 3.1.1. The site is located approximately 0.5km east from Market Bosworth town centre. Market Bosworth Country Park is located approximately 0.2km southeast from the site boundary which contains woodland and a body of water which connect to surrounding habitats. An area of agricultural land is located adjacent to the southern aspect of the site which connects to further habitats which includes the country park. A stream of water is also located approximately 0.2km south from the site which is connect to woodland and grassland habitats. It is anticipated that these surrounding areas will provide suitable habitats for a variety of local species.

3.2. Designated Sites

- 3.2.1. There are two Sites of Special Scientific Interest (SSSI) located within 5km of the site boundary:
- Ashby Canal SSSI – located approximately 2.5km north west from the site boundary. The Ashby Canal supports communities of aquatic and emergent plants that are representative of eutrophic standing water bodies in the English lowlands. The diversity of aquatic plants and invertebrates makes this one of the most important water bodies of its type in the East Midlands. The submerged plant community is of particular interest. Mare's-tail (*Hippuris vulgaris*), spiked water-milfoil (*Myriophyllum spicatum*) and perfoliate pondweed (*Potamogeton perfoliatus*) are locally abundant. Eight other species of pondweed have been recorded including grass-wrack pondweed (*P. compressus*) and flat-stalked pondweed (*P. friesii*) which are nationally uncommon. The Ashby Canal retains one of the richest invertebrate communities of eutrophic standing water still to be found in Leicestershire. Nine species of dragonfly have been recorded, including the locally scarce red-eyed damselfly (*Erythroma najas*). The water beetle fauna is diverse and it includes the nationally rare Haliplus (*Haliplus mucronatus*). The canal support native freshwater crayfish (*Austropotamobius pallipes*) and water shrew (*Neomys fodiens*).
 - Kendall's Meadow SSSI – located approximately 4.8km south west from the site boundary. A traditionally managed hay meadow with a diversity and richness of plant life unmatched in the south west of the County. Notably abundant herbs are yellow rattle (*Rhinanthus minor*), great burnet (*Sanguisorba officinalis*) and cat's ear (*Hypochoeris radicata*).
- 3.2.2. The data search returned four potential Local Wildlife Sites (LWS) within 1 km of the site boundary;
- Market Bosworth, Swan House Horse Chestnuts candidate LWS is located approximately 0.3 km north from the site boundary. This consists of three mature horse chestnut trees (*Aesculus hippocastanum*).
 - Market Bosworth Country Park grassland & pond candidate LWS is located approximately 0.4 km east from the site boundary. The park is made up of mostly amenity grassland and scattered broad-leaved trees.
 - Silk Hill Mature Trees candidate LWS is located approximately 0.5 km north west from the site boundary. This consists of 2 mature oak (*Quercus robur*) trees and one mature ash (*Fraxinus sp.*) tree.
 - Market Bosworth Shenton Lane hedge potential LWS is located approximately 0.6 km south west from the site boundary. This hedgerow was identified as meeting the Hedge Regulations criteria as important.
- 3.2.3. The site also falls within the Impact Risk Zone of the following Statutory Sites, based on consultation with magic.gov.uk;

- Ashby Canal SSSI – located approximately 2.5km north west from the site boundary.
- Kendall's Meadow SSSI – located approximately 4.8km south west from the site boundary.
- River Mease SSSI – located approximately 10 km north west from the site boundary. A lowland clay river supporting nationally significant populations of spined loach (*Cobitis taenia*) and (bullhead *Cottus gobio*), two internationally notable species of native freshwater fish with a restricted distribution in England.

3.3. Priority Habitats

3.3.1. Consultation with Magic.gov.uk highlighted the presence of the following Priority Habitats within 1 km of the site boundary.

- Ancient woodland is located approximately 0.8km south of the site boundary.
- Multiple areas of deciduous woodland are located within 1 km of the site boundary, but none of which are located within the site boundary.

3.4. Habitats

3.4.1. Please refer to **Appendix 1** for the Habitat Map for the site.

Developed Land; Sealed Surface

3.4.2. Developed land; sealed surface made up the access and turning circle, and the building. The road was constructed of tarmac, with stone flags surrounding the single building. Please refer to Section 4.1 for a description of the Building, as part of the PRA.

Modified Grassland

- 3.4.3. Modified grassland was present to the north and south of the site, both of which were well managed and cut to a short sward height. Species recorded included perennial rye-grass (*Lolium perenne*), creeping buttercup (*Ranunculus repens*), mosses (*Bryophyta* sp.), common daisy (*Bellis perennis*), white clover (*Trifolium repens*), common dandelion (*Taraxacum agg.*), cleavers (*Galium aparine*) and hairy bittercress (*Cardamine hirsuta*).
- 3.4.4. The following additional species were recorded within the southern parcel; Yorkshire-fog (*Holcus lanatus*), primrose (*Primula vulgaris*), herb-Robert (*Geranium robertianum*), common mouse-ear (*Cerastium fontanum*), ribwort plantain (*Plantago lanceolata*) and dove's-foot cranes-bill (*Geranium molle*).

Introduced Shrub

3.4.5. Introduced shrub was located to the north of the site, in relation to the access point at Rectory Lane and to the east of the northern modified grassland parcel. Species included; Leyland cypress (*Cupressus x leylandii*), cuckooflower (*Cardamine pratensis*), holly (*Ilex aquifolium*), butterfly-bush (*Buddleja davidii*), bigroot geranium (*Geranium macrorrhizum*), Japanese camellia (*Camellia japonica*), rose (*Rosa* sp.), huckleberry (*Vaccinium membranaceum*), Mexican orange (*Choisya ternata*), rock spray cotoneaster (*Cotoneaster horizontalis*), and dogrose (*Rosa canina agg.*).

Bareground

3.4.6. An area of bareground was present to the east of the building. Limited vegetation was observed, with scattered common ivy (*Hedera helix*), garlic mustard (*Alliaria petiolata*), cleavers and herb-Robert.

Ruderal

- 3.4.7. A strip of ruderal was present along the southern boundary of the site. It was situated on a lower elevation of the adjacent modified grassland, with a brick wall. Species included; broadleaved dock (*Rumex obtusifolius*), common nettle (*Urtica dioica*), foxglove (*Digitalis purpurea*), cleavers, hogweed (*Heracleum sphondylium*), garlic mustard, snowdrop (*Galanthus nivalis*), cuckoo plant, Yorkshire fog and common ivy.

Broadleaved Woodland

- 3.4.8. A parcel of broadleaved woodland was situated to the south east of the site boundary. Tree species included; wild cherry (*Prunus avium*), ash (*Fraxinus excelsior*), cedar of Lebanon (*Cedrus libani*) and holly (*Ilex aquifolium*). A dry ornamental pond was located within this woodland and appeared to have been dry for some time.

Line of Trees

- 3.4.9. Line of trees were present to the north west, west and east of the site boundary. Tree species included; Scot's pine, wych elm, horse chestnut, sycamore, holly, Norway spruce (*Picea abies*), common apple (*Malus domestica*), European larch (*Larix decidua*), common lime (*Tilia x europaea*) and common beech (*Fagus sylvatica*).
- 3.4.10. The understorey was dominated by introduced shrub; holly, cherry laurel (*Prunus laurocerasus*), rose, cotoneaster, Oregon boxleaf (*Paxistima myrsinites*) and Chinese privet (*Ligustrum sinense*). The ground flora was dominated by common ivy for the majority of the cover, with the addition of; common dandelion, bramble (*Rubus fruticosus agg.*), creeping buttercup, broadleaf dock, strawberry (*Fragaria sp.*), common lungwort (*Pulmonaria officinalis*), cleavers, ivy-leaved cyclamen (*Cyclamen hederifolium*), snow drop, heart leaf bergenia (*Bergenia crassifolia*), herb Robert, yew (*Taxus baccata*) and lesser celandine (*Ficaria verna*).

Native Hedgerow

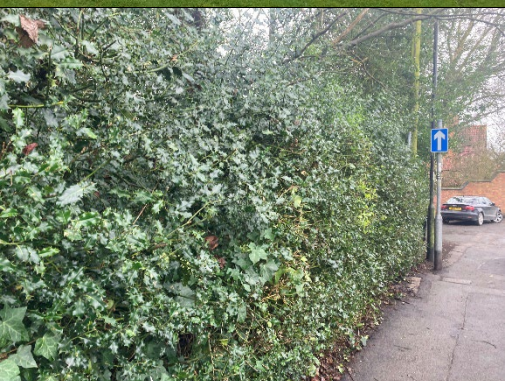
- 3.4.11. A holly hedgerow was located on the northern aspect of the separate, separating the site and the offsite road, and also along the northeastern aspect of the site. It was approximately 2m tall and 1m wide.

Urban Trees

- 3.4.12. One urban tree was present within the modified grassland and comprised a yew.

Table 3 – Site Photographs

Feature	Photograph	
Northern modified grassland parcel		
Southern modified grassland parcel		
Introduced Shrub	 	
Bareground		

Ruderal			
Northern and western Line of Trees			
Eastern Line of Trees			
Native hedgerow			

4. Species

4.1. Flora

- 4.1.1. The data search returned multiple records of notable flora including cornflower (*Centaurea cyanus*). These records mostly relate to Bosworth Park wildflower meadow.
- 4.1.2. The site comprised well-managed habitats with limited floristic diversity. It is anticipated that the managed habitats are unlikely to support any notable plant species whilst the extensive planting of introduced shrub may out-compete locally native species. As such, no notable flora is anticipated to be present.

4.2. Invertebrates

- 4.2.1. The data search returned a total of 35 records of notable invertebrates within 1 km of the site. Species included (not limited to); cinnabar (*Tyria jacobaeae*), small phoenix (*Ecliptopera silaceata*), small heath (*Coenonympha pamphilus*) and rustic (*Hoplodrina blanda*).
- 4.2.2. The site comprised well-managed habitats with limited floristic diversity. It is possible some notable species such as cinnabar could be present though, the site is not considered to be of significant value with higher valued habitats within the local area.

4.3. Amphibians

- 4.3.1. The data search returned one record of great crested newt (*Triturus cristatus*) (GCN). This was located approximately 0.4 km north west from the site boundary. No connecting ponds exist between this location and the site. Common amphibian species such as smooth newt (*Lissotriton vulgaris*) and common frog (*Rana temporaria*) were recorded within 1km of the site boundary.
- 4.3.2. No Granted European Protected Species Licenses were identified within 5km of the site, based on consultation with magic.gov.uk.
- 4.3.3. There were three GCN records within 5km of the site boundary, based on consultation with MAGIC;
- A GCN class survey license result is located approximately 1.8km east of the site boundary (SK426029). This found GCN to be present within the pond in 2017.
 - A GCN class survey license result is located approximately 2.5km east of the site boundary (SK433030). This found that GCN were present within the pond in 2014.
 - A GCN class survey license result is located approximately 4.5km north of the site boundary (SK41400740). This found that GCN were present within the pond between 2016 and 2017.
- 4.3.4. Within 5km of the site boundary, a total of two surveys took place between 2017-2019. These surveys showed GCN were not present within the ponds surveyed.
- 4.3.5. Two ponds were located within 250m of the site boundary, as demonstrated on Figure 2.



Figure 2 – Pond Location within 250m of the Site

- 4.3.6. P1 was located approximately 250m south east of the site boundary. It was inspected during the survey and was a fishing pond. As such, it is not anticipated great crested newts are present within P1, as fish stocked ponds are often not used for breeding purposes.
- 4.3.7. P2 was located approximately 230m north east of the site boundary. It comprised a moat, in association with Bosworth Hall Hotel and Spa which appeared to be used for ornamental use and mallard (*Anas platyrhynchos*) were observed. It was subject to an HSI assessment and scored Average - 0.64, detailed in Table 4. P2 was separated to the site via The Park which was curbed which is considered a significant dispersal barrier, whilst the pond is situated on the upper dispersal level. As such, it is not considered GCN would commute to site, should they be present within P2. As such, GCN are deemed likely absent from site.

Table 4 – Habitat Suitability Index

		Suitability Indices								
Pond 1	Zone A	400m ²	Never dries	Poor	50%	Minor	Possible	5	Poor	20%
	1	0.8	0.9	0.33	1	0.67	0.67	0.7	0.33	0.5

- 4.3.8. The majority of the habitats on site are considered to be of limited suitability for common amphibians due to comprising managed grassland or hardstanding/buildings. However, the hedgerows and line of trees are anticipated to provide cover and foraging resources for the species group.

4.4. Reptiles

- 4.4.1. The data search returned four records of grass snake (*Natrix helvetica*) within 1 km of the site boundary, with the closest located approximately 217 m west of the site. No other records of reptile species within the local area.
- 4.4.2. The site provides limited value for reptiles, given the majority of the site comprised modified grassland and hardstanding, which lack the structure and habitat quality to support the species group. The boundary features and tall ruderal may provide suitability habitat for reptiles, though these are restricted to the boundaries of the site.

4.5. Birds

- 4.5.1. A total of 145 records of birds were returned during the 1 km data search. Records relevant to the site included (not limited to); yellowhammer (*Emberiza citrinella*), house sparrow (*Passer domesticus*), common quail (*Coturnix coturnix*), hen harrier (*Circus Cyaneus*), reed bunting (*Emberiza schoeniclus*), Eurasian bullfinch (*Pyrrhula pyrrhula*), Eurasian wren (*Troglodytes troglodytes*), common starling (*Sturnus vulgaris*), swallow (*Hirundo rustica*), cuckoo (*Cuculidae sp.*), barn owl (*Tyto alba*) and song thrush (*Turdus philomelus*).
- 4.5.2. The site provides a range of potential breeding habitats for a variety of birds in association with the hedgerows and line of trees. House sparrow (*Passer domesticus*), wood pigeon (*Columba palumbus*) and magpie (*Pica pica*) were observed onsite during the survey. Notable bird species associated with boundary habitats may be present such as dunnoek (*Prunella modularis*).
- 4.5.3. The Building may also provide suitable nesting habitat such as swallow.
- 4.5.4. The site is considered to be of limited value for ground nesting birds due to the presence of mature broadleaved trees which will provide suitable perches for birds of prey and being located within a residential area and the increased possibility of domestic cats.

4.6. Bats

- 4.6.1. A total of 238 records of bats were returned within 1 km of the site boundary, these are related to activity and roosting activity, with the closest roost located approximately 75m north west of the site boundary. Species included soprano pipistrelle (*Pipistrellus pygmaeus*), unidentified pipistrelle (*Pipistrellus sp.*), common pipistrelle (*Pipistrellus pipistrellus*), brown long-eared bat (*Plecotus auratus*) and Noctule (*Nyctalus noctule*).
- 4.6.2. The following Granted European Protected Species Licences were identified within 5km of the site, based on consultation with magic.gov.uk;
- 2020-44716-EPS-MIT-1 – Located approximately 0.4km west from the site boundary. This allowed for the destruction of a resting place for common pipistrelle between 06/03/2020 and 31/03/2021.
 - EPSM2009-1495 – Located approximately 0.9km west of the site boundary. This allowed for the destruction of a resting place for common pipistrelle between 12/02/2010 and 31/07/2011.
 - 2017-31325-EPS-MIT – Located approximately 2.2km south west of the site boundary. This allowed for the destruction of a resting place for brown long-eared bat between 03/10/2017 and 26/09/2022.
 - 2018-36967-EPS-MIT – Located approximately 2.6km south of the site boundary. This allowed for the damage of a resting place for brown long-eared bat between 23/08/2018 and 30/04/2019.

- EPSM2009-481 – Located approximately 2.8km north east of the site boundary. This allowed for the destruction of a breeding site and resting place for common pipistrelle between 09/02/2009 and 30/09/2010.
- EPSM2010-2594 – Located approximately 2.8km north east of the site boundary. This allowed for the destruction of a breeding site for common pipistrelle between 07/12/2010 and 31/12/2012.
- 2015-14530-EPS-MIT – Located approximately 3.1km west of the site boundary. This allowed for the damage of a breeding site and resting place for common pipistrelle and brown long-eared bat between 28/09/2015 and 27/09/2020.
- EPSM2013-6503 – Located approximately 4.6km south of the site boundary. This allowed for the destruction of a resting place for common pipistrelle and brown long-eared bat between 24/10/2013 and 31/08/2014.
- EPSM2013-6587 – Located approximately 4.6km north west of the site boundary. This allowed for the destruction of a resting place for common pipistrelle and brown long-eared bat between 07/11/2013 and 31/03/2014.
- 2014-669-EPS-MIT – Located approximately 4.6km north west of the site boundary. This allowed for the destruction for a resting place for common pipistrelle and brown long-eared bat between 21/05/2014 and 21/12/2014.

4.6.3. Upon review of the adjacent planning application, relating to the conversion of barns, ecology surveys were completed. Bat surveys were conducted in 2022 by BJ Collins found that three roosts were present; common pipistrelle, brown long-eared bat and myotis. There is no evidence however, that this building supported a maternity roost due to the number of bats recorded (four) and amount of droppings identified. A European Protected Species Licence is to be obtained to allow the proposed development to proceed.

4.6.4. The Building and trees were subject to a PRA, as detailed in Table 5.

Table 5 – Preliminary Roost Assessment

Description	Photograph
<u>Building 1 (B1)</u> Two storey red brick building, currently vacant with multiple windows and doorways located across its extent. A single storey annex was located on its western aspect. The brick across its extent was in generally in condition. Mortar was missing on the eastern aspect on the upper elevation which may provide suitable crevices for single or low numbers of bats within the brick work. Whilst mortar was missing at some stones situated above the windows, again providing a PRF. The roof was multi-pitched comprising tiles and chimney stacks, and overhanging eaves. The overhanging eaves were flush to the brick work with no potential access points observed. However, multiple slate and ridge tiles were observed as missing, and mortar was missing at joints of the roof and at the ridge tiles which may provide internal access to a loft space or a PRF. In addition, some of the lead flashing was found to be lifted that may provide a PRF. These features were observed across the roof. On the northwestern aspect, a section of slightly lifted lead flashing was observed, which may provide a suitable PRF. The western annex was constructed in 2000 and in better condition. An air gap on it's southeastern aspect appeared to lead to a cavity which bats may utilise. The lead flashing on this roof was flush to the building and roof, and no other PRFs or potential access points relating to the Annex was present. The majority of windows and doorways were flush to the brick work. Smaller windows in association to the loft were boarded up, though appeared that some gaps were present which may provide internal access points to the loft. An internal inspection of the loft of the main house was completed, and demonstrated it was connected throughout. The eastern aspect of the roof comprised bare slate positioned on the wooden beams, where	

light gaps were observed indicating potential access points. The western aspect of the loft was lined with wooden boarding, which was in poor condition, with some gaps present. Scattered bat and mouse droppings were observed on the floor, which could be accessed. It was difficult to determine to what extent were bat droppings. The loft was partially naturally lit due to the presence of windows.

As the loft space was found to un-cluttered, with multiple potential access points, bat droppings and PRFs observed relating to the loft itself and the roof structure, the loft was considered suitable for a maternity roost.

B1 was assessed as having high bat roosting potential.



Tree 1

Approx. grid reference: SK 40771 02993
Mature horse chestnut which generally appeared in good condition, though due to dense ivy growth, may provide a PRF.

Low bat roosting potential.



Tree 2 and 3

Approx. grid reference: SK 40782 02950
Northern tree has lifted bark located on the highest elevation of tree, with the addition of pruning wounds, though these appeared superficial.
Southern tree had had pruning work completed with a pruning wound located approximately 5m from ground level on the southern aspect.

Low bat roosting potential.



4.6.5. The habitats on site are anticipated to provide value for foraging bats due to comprising mosaic of managed habitats which will attract invertebrate prey. Whilst the hedgerows and line of trees may be utilised for commuting and are connected to further linear features within the local area. The site has the potential to support roosting bats whilst the habitats were assessed as having moderate value.

4.7. Badger

4.7.1. Multiple records of Eurasian badger (*Meles meles*) were returned during the 1km data search, their location is to remain confidential.

4.7.2. Mammal paths were observed within the line of trees, with potential snuffle holes within the modified grassland on the eastern aspect. A disused badger sett was located to the south east of the site boundary (grid reference: SK 40794 02903) and appeared partially collapsed. It was located close to a well-used mammal path, where a badger footprint was observed confirming the species presence. Badger was confirmed present on site.

4.8. Other Terrestrial Mammals

4.8.1. Four records of west European hedgehog (*Erinaceus europaeus*) were located within the 1km search area. Given the habitats present within the site including hedgerows and lines of trees connecting to adjacent farmland, it is anticipated that hedgehog could be present within the site.

4.8.2. Four records of brown hare (*Lepus europaeus*) were recorded within 1km of the site. The site is anticipated to have limited value for the species due to the sites use as predominantly modified grassland and are not considered present.

4.9. Non-Native Invasive Species

4.9.1. Multiple records of non-native invasive flora species were located within the 1 km search area. Species includes giant hogweed (*Heracleum mantegazzianum*), giant knotweed (*Fallopia sachalinensis*), variegated yellow archangel (*Lamium galeobdolon subsp. argentatum*), parrot's-feather (*Myriophyllum aquaticum*), Japanese rose (*Rosa rugosa*) and rhododendron (*Rhododendron ponticum*).

4.9.2. Rockspray cotoneaster was identified scattered within the line of trees.

4.10. Species Discounted from Assessment

4.10.1. Water vole (*Arvicola amphibius*), otter (*Lutra lutra*), beaver (*Castor fiber*) and white-clawed crayfish (*Austropotamobius pallipes*) have been discounted from assessment as no aquatic habitats are located on site therefore does not have the suitable habitat.

- 4.10.2. Red squirrel (*Sciurus vulgaris*) has been discounted from the assessment. Red squirrel populations are limited to small areas of northern England and are not known to be present in the Market Bosworth area; with no previous records returned in the data search. It is anticipated that high abundances of grey squirrel are present within this region (Shuttleworth/RSST n.d.). This species will displace red squirrel through competition as well as cause increased red squirrel mortality through the spread of squirrel pox (The Mammal Society, 2020).

5. Recommendations and Mitigation

5.1. Designated Sites

- 5.1.1. The site is located within the Impact Risk Zone of several SSSI sites and Potential LWSs. It is anticipated that the designated sites are a sufficient distance away and are separated by anthropogenic barriers such as the residential areas, such that no impacts as a result of development are anticipated. Whilst the development relates to the use of an education centre, which will not increase the number of visitors to the nearby designated sites, as such, no further consideration relating to designated sites is required.

5.2. Habitats

- 5.2.1. Based on the current proposals the majority of trees and hedgerows will be retained. Generally, the protection measures of retained trees will be through use of temporary protective demarcation fencing to protect the trees and shrubs. The fencing must extend outside the canopy of the retained trees and must remain in position until all plots have been developed to ensure protection is provided throughout the construction phase. The fencing will be in accordance with BS 5837:2012 Trees in Relation to Design, Demolition and Construction: Recommendations, and is detailed within the Arboricultural Impact Assessment (to be produced).

5.3. Amphibians

- 5.3.1. Common amphibians may occur on site, and it is recommended that consideration of amphibian presence during habitat removal is considered. Any debris is to be cleared by hand, and any common amphibians located moved carefully, by hand, to outside of the impacted area.

5.4. Reptiles

- 5.4.1. Suitable habitat for reptiles is present, and the site is connected to other suitable habitat within the wider area. The majority of the suitable habitat is to be retained, as such, the following Reasonable Avoidance Measures (RAMs) should be followed during the site clearance works.
- 5.4.2. RAM's will be followed to minimise the likelihood of killing, injuring or disturbing any reptiles present on the site:
- An experienced ECoW shall be appointed to ensure RAM's are enforced;
 - A copy of this CEMP must be kept on site (we suggest having a laminated copy in the site office/compound);
 - A walkover of the area should be undertaken by the ECoW to determine any change in status of the habitats/structures on site prior to the initiation of any works;
 - A toolbox talk by the appointed ECoW will be given to the site manager and all contractors working on site with respect to the surrounding habitats and potential for protected/notable species. A copy of species factsheets relating to reptiles and breeding birds will be provided for display within the site office.

- Suitable vegetation is to be strimmed under ECoW to approximately 15cm in a northern to southern direction. It is to be checked by the ECoW following strimming to identify individuals. If discovered, they will be removed from the working area and covered. Once the areas are deemed reptile free, they are to be strimmed to ground level and maintained at this length for the remaining works.
- Any excavations will be back-filled on the same day as excavation, or checked by the ECoW immediately prior to backfilling. If not possible, a ramp, will be provided in all excavations that cannot be backfilled on the same day or alternatively, all excavations should be well-covered with plywood.
- No piles of loose construction materials are to be created during works – all material will be kept on hardstanding, stored on pallets, removed immediately from the site or checked by an ECoW prior to being removed.
- In the event reptiles are discovered, works will halt immediately and the ECoW will be contacted for advice. Contractors are not to handle reptiles unless informed to do so by the ECoW.

5.4.3. The precautionary destructive search work will be undertaken during the summer at a time of year when reptiles are active. The ecologist will be present during the strimming works. Any reptiles found during the destructive search will be relocated to the retained grassland to the south of the site.

5.5. Birds

- 5.5.1. The habitats of highest potential value are mainly to be retained and protected, as such it is not anticipated the development will have a significant impact on the local bird population.
- 5.5.2. Any vegetation removal and works relating to the building, is required within the breeding bird season (March – September inclusive), a nesting bird check should first be undertaken by a suitably experienced ecologist. If any nests, or nests in construction are located, a suitable buffer zone should be maintained until the young have fledged. The vegetation should be removed within 48 hours of the nesting bird check.

5.6. Bats

- 5.6.1. The building was assessed as having high bat roosting potential. Further surveys are recommended on the Building (see Section 6).
- 5.6.2. It is unknown whether T1-3 will require removal, however if T1-3 require removal, they should be removed using the soft-fell approach, as detailed within the relevant bat guidance, Collins (2016). This would involve being inspected by a licensed bat worker with an endoscope before felling or utilising a soft felling technique (which involves practises like removing limbs separately and lowering them to the ground and then leaving for 24 hours before clearing).
- 5.6.3. The habitats of highest potential value for commuting and foraging bats comprise the boundary features, whilst the grassland may provide some foraging value. The majority of these habitats are to be retained and protected, as such, it is not anticipated the local bat population will be affected by the proposed development. Proposed landscaped areas should include species rich grassland to attract invertebrate prey.
- 5.6.4. Slow-flying species are sensitive to lighting and may be impacted by the proposed development, should no mitigation for lighting be considered. Any proposed lighting/existing lighting should follow the guidance outlined in the Institute for Lighting Engineers document “Guidance for the Reduction of Obtrusive Lighting” (2005) and BCT’s “Bats and Artificial Lighting in the UK” (2018).

5.6.5. An External Lighting Scheme had not been produced on the writing of this report. As such, the following recommendations are to be considered within the scheme during its condition, to minimise impacts of lighting. The recommendations are as follows:

- Keep site lighting to minimum levels.
- Luminaries should lack UV elements and preferably LED lighting with a warm white light should be used over cool white light (ideally <2700Kelvin).
- Lighting should feature peak wavelengths greater than 550nm.
- Light placement should be downward facing to prevent excess horizontal or vertical light spill.
- The use of integrated fittings such as cowls, shields, louvres and hoods, that effectively contain light spill from unintended areas.
- Avoid illuminating habitats of value.
- Use of timed security lights should be set on motion-sensors and using short, 1-minute timers, to minimise light use.
- Column heights of lighting can be considered to minimise light spill.

5.7. Badgers

5.7.1. A single badger sett was located on the south eastern aspect of the site. As there are currently no proposals, it is recommended that a minimum 20m buffer is maintained from the sett. It is difficult to determine whether the sett is within the site boundary. If it is, and the 20m buffer is not feasible, a Method Statement should be produced to close the sett. If the sett is confirmed to be inactive, a licence from Natural England would not be required.

5.7.2. The following Precautionary Working Methods will be adhered to during the construction phase to ensure that no badgers are impacted by the proposed development:

- Updated badger walkover to be completed immediately prior to the construction phase to confirm presence or absence of badgers.
- All site operatives will be inducted to the potential presence of the species and the species legal protection.
- All site operatives will be inducted as to identifying potential badger setts and should be vigilant if they suspect they locate a new sett during works and inform the site manager immediately. A minimum 20m buffer will be maintained from the potential sett until an ecologist has been to site.
- All excavations will be battened at a 45 degree angle or ramps to be positioned to allow escape should animals become trapped.
- All site machinery and materials will be appropriately stored to avoid harm to the species, notably between July and November each year when extra care is needed to avoid potential impacts on pregnant females.

5.8. Other Terrestrial Mammals

5.8.1. The site provides value for hedgehog. It is recommended that areas of vegetation to be removed should first be checked by hand for hedgehogs. If any hedgehogs are located, they should be carefully relocated to an area away from harm but within the close vicinity of the site to ensure they remain in their home territory.

5.9. Further Surveys Required

Nocturnal Bat Survey

- 5.9.1. The Building was found to provide high bat roosting potential, and therefore, in accordance with Best Practice guidance (Collins, 2016). A minimum of three further nocturnal emergence/ re- entry surveys should be undertaken between May-September (inclusive) to determine usage by roosting bats.
- 5.9.2. The results of the further surveys will determine if any mitigation is required for roosting bats. If roosting bats are located within any of the buildings, a Natural England Mitigation Licence may be required for development to proceed. The Licence can only be obtained once planning permission has been granted and all wildlife conditions discharged. However, the bat emergence surveys must be undertaken prior to planning permission being applied for as they are a material consideration.
- 5.9.3. Please refer to the table below for a summary of further surveys required.

Survey	Timescale
Nocturnal Bat Surveys (Building)	May to September (inclusive)

5.10. Conclusion

- 5.10.1. The proposals are not anticipated to have a significant negative impact on any ecological features or receptors within the local area if the above detailed mitigation is followed, and further surveys are carried out to determine bat mitigation.

6. Bibliography

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- English Nature (2001). Great Crested Newt Mitigation Guidelines.
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- JNCC (2010). Handbook for Phase 1 habitat survey: A technique for environmental audit. English Field Unit, Nature Conservancy Council.
- Mitchell-Jones (2004). Bat Mitigation Guidelines: Working Today for Natura Tomorrow. English Nature.
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- Wildlife and Countryside Act (2010) Schedule 9 of the Wildlife and Countryside Act 1981.

Appendix 1 – Habitat Plan



Drawing Title: Habitat Map
Date: 21/03/2023

-  Site boundary
- Woodland
 -  w1g - other woodland-broadleaved
- Introduced shrub
 -  u - urban
- Tall ruderal
 -  g3c - other neutral grassland
- Bareground
 -  s - sparsely vegetated land
- Modified grassland
 -  g4 - modified grassland
- Developed land; sealed surface
 -  u1b - developed land. sealed surface
-  Native hedgerow
-  Line of trees

Scale: 1:1500

Drawn By: KB

Checked By: OC

Approved By: SH



Client: Witherslack Group

Site: The Old Rectory, Rectory Lane

Rev: 1.0

Seed 2023