

**Preliminary Ecological Appraisal**  
of  
**Barns at Bedfield House,**  
**Bedfield**



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*The findings detailed in this report are based on evidence from thorough survey, where every effort has been taken to provide an accurate assessment of the site at the time of the survey. No liability can be assumed for omissions or changes after the survey has taken place.*

*This report was instructed by Phil Cobbold Planning Ltd., and following the brief agreed. Aspen Ecology has made every effort to meet the client's brief.*

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## 1 Executive Summary

Aspen Ecology was instructed by Phil Cobbold Planning Ltd. on behalf of their client to carry out a Preliminary Ecological Appraisal (PEA) of a Barn at Bedfield House, Earl Soham Rd, Bedfield hereafter referred to as 'the Site'. The central grid reference for the Site is TM 23483 65043. The site survey was undertaken on the 22<sup>nd</sup> September 2021.

The site comprises a U-shaped Barn surrounded by grass paddocks, a small area of woodland and hedgerows. A number of ponds are located in the gardens of Bedfield House to the north.

Three County wildlife sites are present within 2km, no Statutory or European sites are present within impact distance. No impacts are predicted to any non-statutory sites due to the location and scale of the proposals.

The development proposes conversion of the Barn to residential use with the construction of a new driveway and access into the site.

Evidence with the Barn suggests that it is used by low numbers of roosting bats likely brown long-eared and pipistrelle sp. Further surveys are recommended to assess the species and numbers of roosting bats to inform the conversion proposals. Precautionary clearance of suitable habitats will minimise the risk of causing harm to reptiles and amphibians that may use surrounding grassland and woodland habitats.

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## 2 Introduction

### 2.1 Background

Aspen Ecology was commissioned by Phil Cobbold Planning Ltd. on behalf of their client to undertake a Preliminary Ecological Appraisal of Barns at Bedfield House, Bedfield, Suffolk. The National Grid co-ordinates for the centre of the site are TM 23483 65043.

The assessment was required to inform an application for planning permission to convert the barns to residential use. This report presents the findings of the Preliminary Ecological Appraisal carried out by Aspen Ecology in September 2021.

### 2.2 Aims and Scope of Report

This report is a Preliminary Ecological Appraisal. According to CIEEM guidelines<sup>1</sup>, a Preliminary Ecological Appraisal “*can be used as a scoping report (for non-Environmental Impact Assessment (EIA) projects), but should not be submitted as part of a planning application unless it can be determined that the project would have no significant ecological effects, no mitigation is required and no further surveys are necessary.*”

This report is based on an extended Phase 1 habitat survey and desktop study aimed at assessing the suitability of the site to support protected species and notable habitats. This information allows an initial assessment of the biodiversity value of the site to be made, potential constraints to the proposed development to be identified and mitigation, compensation and enhancement measures to be developed.

The report assesses any potential impacts on legally protected species and habitats. Where potential for notable or protected species is identified, further surveys may be required to determine presence or likely absence and assess the conservation status of populations or assemblages present. The results of such work are required to fully assess the potential ecological impacts of the scheme.

### 2.3 Site Description

The site comprises a stable block/barn surrounded by grazed/mown paddocks, a small area of plantation woodland, menage, vegetable garden and compost heaps.

Bedfield House and its surrounding mature gardens are present to the north of the site, with arable farmland and a small number of rural residential properties in the wider area. Arable fields are surrounded by hedgerows and tree line with a number of small linear woodlands in the local area.

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<sup>1</sup> CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester

## 2.4 Planning Policy and Legislation

For the purposes of this report, protected species are taken to be those which are protected under UK legislation (The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019<sup>2</sup>, Wildlife and Countryside Act 1981<sup>3</sup>; Protection of Badgers Act 1992<sup>4</sup>).

Protected species, and Species of Principle Importance for conservation of biodiversity in England (SPIE species – formally Biodiversity Action Plan species), are a material consideration for individual planning consents under the National Planning Policy Framework<sup>5</sup> (NPPF), which places responsibility on LPAs to aim to conserve and enhance biodiversity in and around developments, promote the enhancement of natural and local environments through planning, and achieve net gains for biodiversity where possible.

### 2.4.1 Planning Policy

#### 2.4.1.1 National Policy

The National Planning Policy Framework (NPPF) sets out the government's requirements for the planning system in England. A number of sections of the NPPF are relevant when taking into account development proposals and the environment. As set out within Paragraph 11 of the NPPF "*So that sustainable development is pursued in a positive way, at the heart of the Framework is a presumption in favour of sustainable development*". However, Paragraph 182 goes on to state that "*The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site*".

The general impetus of the NPPF in relation to ecology and biodiversity is for development proposals to not only minimise the impacts on biodiversity but also to provide enhancement. Paragraph 174 states that the planning system should contribute to and enhance the natural environment by "*...minimising impacts on and providing net gains for biodiversity...*"

Paragraph 180 states that "*development whose primary objective is to conserve or enhance biodiversity should be supported*". A number of principles are set out in Paragraphs 180 including the principle that where harm cannot be adequately avoided then it should be mitigated for, or as a last resort, compensated for. Where impacts occur on nationally designated sites, the benefits must clearly outweigh any adverse impact and incorporating biodiversity in and around developments should be encouraged. Protection of irreplaceable habitats, such as ancient woodlands and those sites proposed as SPAs, SACs and Ramsar sites or acting as compensation for SPAs, SACs and Ramsar sites, should receive the same protection as Habitats Sites.

In addition to the NPPF, Circular 06/05 provides guidance on the application of the law relating to planning and nature conservation as it applies in England. Paragraph 98 states "*the*

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<sup>2</sup> HMSO (2019) The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations. HMSO, London.

<sup>3</sup> HMSO (1981) Wildlife and Countryside Act (as amended). HMSO, London.

<sup>4</sup> HMSO (1992) Protection of Badgers Act, HMSO London.

<sup>5</sup> National Planning Policy Framework (July 2021)

*presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat". Whilst paragraph 99 states "it is essential that the presence or otherwise of a protected species, and the extent that they may be affected by the proposed development, is established before planning permission is granted".*

#### **2.4.1.2 Local Policy**

The site is covered by Mid Suffolk District Council who are in the process of preparing a New Joint Local Plan Document with Babergh District Council. The New Local Plan will include all major planning policy for the District in a single document and will need to meet the requirements of the National Planning Policy Framework (NPPF). Once complete it will replace both the Core Strategy (2008) and the Local Plan Alteration No.2 (1998). A new Local Development Scheme (LDS) which sets out the revised timetable for the production of the Joint Local Plan was approved by Babergh District Council on 21st July 2020 and Mid Suffolk District Council on 23rd July 2020.

Mid Suffolk's Core Strategy was adopted in September 2008. As the key Development Plan Document it sets out the vision, objectives, spatial strategy and core policies that will guide development across the district until 2025, and beyond. A Core Strategy Focussed Review was undertaken and adopted by the Council on 20<sup>th</sup> December 2012.

Current adopted Local planning policy within Mid Suffolk is provided by the Core Strategy 2008. A single overarching policy within the Core Strategy makes specific reference to ecology and biodiversity:

- **Policy CS5:** Mid Suffolk's Environment

All development will maintain and enhance the environment, including the historic environment, and retain the local distinctiveness of the area.

To protect, manage and enhance Mid Suffolk's biodiversity and geodiversity based on a network of:

- Designated Sites (international, national, regional and local)
- Biodiversity Action Plan Species and Habitats, geodiversity interests within the wider environment
- Wildlife Corridors and Ecological Networks

and where appropriate increase opportunities for access and appreciation of biodiversity and geodiversity conservation for all sections of the community.

Emphasis will be given to the creation new habitats particularly along the Gipping, Upper Waveney and Deben river valley's in connection with flood management schemes and to contribute towards green tourism opportunities.



## 3 Methodology

### 3.1 Site Survey

The site survey was undertaken by Mary Power BSc (Hons) MSc MCIEEM, a full member of the Chartered Institute of Ecology & Environmental Management, subject to the CIEEM Professional Code of Conduct and licensed by Natural England to survey for great crested newts (WML-CL08; Level 1) and bats (WML-CL18; Level 2).

During the survey on 22<sup>nd</sup> September 2021 the temperature was 18°C; the wind was Beaufort scale 0-1, 5% cloud cover and good visibility.

The survey was undertaken in accordance with Guidelines for Preliminary Ecology Appraisal<sup>6</sup> and the broad methodology and principles of the Joint Nature Conservation Committee (JNCC) Phase 1 Habitat Survey<sup>7</sup>, which included mapping habitat types and identifying plant species observed on the site, including Wildlife and Countryside Act Schedule 9 invasive plant species.

The Phase 1 Habitat Map in Appendix B shows main habitat types, and features of interest identified as target notes.

The potential for presence of protected, Species of Principal Importance in England (SPIE) and rare species was assessed as follows:

**Amphibians** - Known ponds adjacent to the site were addressed for potential to support breeding amphibians where accessible. Habitat on the site, was surveyed for potential to support amphibians during their terrestrial or aquatic phase. 250m is a standardised search radius to assist in the assessment of the potential of a site and its surrounding habitat to support great crested newt, based on current Natural England guidance<sup>8</sup>.

**Bats** – Habitat within, and adjacent to, the site boundary was assessed for potential to support roosting, foraging and commuting bats, aided by aerial photographs of the surrounding landscape. The survey conformed to current Bat Conservation Trust guidelines<sup>9</sup>.

**Dormice** – the site was assessed for potential to support dormice: Wooded/scrub areas or hedges with good under-storey/shrub layer and a diversity of foraging opportunities covering the active dormouse season.

**Reptiles** – Habitats were assessed for potential to support foraging or breeding reptiles and hibernation or refuge opportunities<sup>10,11</sup>.

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<sup>6</sup> CIEEM (2017) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester

<sup>7</sup> JNCC (2010) Handbook for Phase 1 habitat survey: a technique for environmental audit (revised reprint) JNCC: Peterborough.

<sup>8</sup> English Nature (2001) Great Crested Newt Mitigation Guidelines. Peterborough

<sup>9</sup> Collins, J. (Ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (Third Edition). The Bat Conservation Trust, London.

<sup>10</sup> Froglife (1999) Reptile Survey. An Introduction to Planning, Conducting and Interpreting Surveys for Snake and Lizard Conservation.

<sup>11</sup> Gent, A.H. and Gibson, S.D., eds. (1998) Herpetofauna Workers' Manual. Peterborough, Joint Nature Conservation Committee.

**Invertebrates** - The site was surveyed for high quality aquatic, deadwood or other habitats which could be used by significant assemblages of invertebrates, or by invertebrates identified in the data search. During the Phase 1 survey there was no attempt made to identify species present and where a site supports features that may be of importance to invertebrates then further Phase 2 surveys may be required to assess the importance of the site.

**Flora and habitats** - A walkover survey identified broad vegetation types, which were then classified against Phase 1 habitat types, where appropriate. Any invasive species<sup>12</sup> encountered as an incidental result of the survey are noted.

**Water voles and otters** – Water bodies within impact distance of the site were assessed for potential to support water voles and otters.

**Badgers** - A visual assessment for setts, hair, latrines, prints, foraging disturbance or other signs of badgers was undertaken within, and directly adjacent to, the site boundary.

**Birds** - The assessment of breeding birds and wintering birds on the site was based on the suitability of habitat present, evidence of nesting such as old or currently active nests and the presence of bird species that may potentially nest within the available habitat.

**Adjacent habitat** - Aerial photographs, available maps and survey of the area outside the site boundary (where access was available) was used to identify any habitat in the wider landscape which could be impacted by proposed works.

### 3.2 Desk Study and Biodiversity Information Consultation

A 2km radius search for statutory designated sites was conducted using “MAGIC”, the Multi-Agency Geographic Information system for the Countryside<sup>13</sup>. The search radius was extended to 13km for sites previously designated under European Legislation: Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites, where the potential risk of impact to the qualifying features (species or habitats) of these sites may extend over a wider area.

Suffolk Biodiversity Information Service (SBIS) was consulted for records of protected and locally rare species within a 2km radius of the site (data provided on 22<sup>nd</sup> September 2021). The site is covered by the Local BAP for Suffolk.

## 4 Results and Discussion

### 4.1 Desk Study

MAGIC<sup>14</sup>, was accessed (4<sup>th</sup> October 2021), to identify the presence of statutory designated sites and habitats.

No statutory sites are located within 2km; and no European sites within 13km of the site. Three non-statutory County Wildlife Sites were located within 2km of the site (Table 4.1).

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<sup>12</sup> Plant species included on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

<sup>13</sup> <http://defra.magic.gov.uk>

<sup>14</sup> <http://defra.magic.gov.uk>

No sites have been granted European Protected Species Licences (as recorded on MAGIC – accessed 4<sup>th</sup> October 2021) within 2km of the site boundary.

**Table 4.1:** Non-statutory County Wildlife Sites within 2km.

Site Name	Designation	Approx. distance from Site	Description
RNR 146	CWS & RNR	10m SW	Boulder Clay Flora. This site is also a Roadside Nature Reserve. (roadside verge on opposite side of Earl Soham Rd)
Saxtead Green	CWS	1.7km SE	This small area of species-rich neutral grassland (Priority habitat) situated in front of the Saxtead Mill supports number of plants, such as pepper saxifrage, ox-eye daisy and agrimony. A dense stand of a garden variety of sneezewort is also present. Two ponds lie in close proximity to the Mill. The western-most pond provides suitable conditions for a good diversity of marginal vegetation including false fox sedge, hairy willowherb and gypsywort. The structural variation and habitat on the green provides habitat opportunities for a range of species of invertebrates, ground feeding birds, small mammals and amphibians. Hedgehog (Priority species), smooth newt and a number of common butterfly species have been recorded here previously. The site is managed as a hay meadow.
RNR 188	CWS & RNR	1km NW	Sulphur Clover. This is also a Roadside Nature Reserve.

## 4.2 Biodiversity Information Consultation

A full list of SPIE (formally UK BAP) protected mammals, reptiles, invertebrates and plants is shown below in Table 4.3. A reduced list of UK BAP and protected birds is shown, these have been selected based on their likelihood of being recorded at the site, given the habitat types present. No records of bats were provided.

**Table 4.3:** Protected, SPIE and locally scarce species records (SBIS, 22<sup>nd</sup> September 2021).

Species	Protection	Records: Date and distance to the site
<b>Bats</b>		
No records of bats were provided		
<b>Other Mammals</b>		
Hedgehog <i>Erinaceus europaeus</i>	SPIE, SBAP	Twenty records (2004-2018). Closest record 640m NW.
Water vole <i>Arvicola amphibius</i>	WCA; SPIE; SBAP	Single record (2007) 960m NW.
Harvest mouse <i>Micromys minutus</i>	SPIE; SBAP	Single record (2009) 1.6km SW.

Species	Protection	Records: Date and distance to the site
<b>Amphibians</b>		
Toad <i>Bufo bufo</i>	SPIE, SBAP	Single record (2009) 730m NW.
Great crested newt <i>Triturus cristatus</i>	CHS(EU Exit)R 2019; WCA; SBAP	Ten records (2005-2019). Closest record 100m NW.
<b>Reptiles</b>		
Grass snake <i>Natrix helvetica</i>	WCA; SPIE; SBAP	Four records (2005-2015). Closest record 320m SE.
<b>Nesting and protected, WCA, SPIE birds</b>		
<p>A number of birds were identified in the desk study, many of which would not use habitats at the site. The following SPIE/EBAP species have been recorded within 2km, and could use habitats within the site for nesting or foraging:</p> <p><b>SPIE/BAP and Red-listed Birds of Conservation Concern (BoCC):</b> Cuckoo, song thrush, starling, house sparrow, tree sparrow, spotted flycatcher, linnet, corn bunting, yellowhammer, turtle, dove.</p> <p><b>SPIE/BAP and Amber-listed Birds of Conservation Concern (BoCC):</b> dunnock, bullfinch, reed bunting.</p> <p><b>WCA Schedule 1 birds:</b> Kingfisher, barn owl, brambling, fieldfare, redwing.</p>		
<b>Protected and SPIE plants</b>		
<p>The following plants listed as vulnerable or endangered on the Red list of Great Britain &amp; England have been recorded within 2km of the site:</p> <p>Sulphur clover <i>Trifolium ochroleucon</i> &amp; bluebell <i>Hyacinthoides non-scripta</i> (WCA Sch8).</p>		
<b>Protected and SPIE invertebrates</b>		
Invertebrates	SPIE	Lepidoptera species include small heath & wall butterflies.

SBAP = Suffolk Biodiversity Action Plan; SPIE = Species of Principal Importance in England; CHS(EU Exit)R = Conservation of Habitats and Species (Amendment) (EU Exit) Regulations; WCA = Wildlife and Countryside Act.

### 4.3 Potential for Protected Species and Habitats

The site was assessed to identify whether the proposals could potentially impact on protected or locally rare species or habitats, either during the conversion, or operational phase.

#### 4.3.1 Habitats and Flora

The survey was undertaken in September, which at the end of the optimum botanical survey season. No rare or priority plant species were recorded during the survey.

The site comprised a u-shaped stable block/barn surrounded by grazed/mown paddocks with a small plantation woodland, hedgerows and a pond adjacent to the northern boundary. A small kitchen garden, menage and compost heaps are also present.

#### **4.3.1.1 Semi-improved grassland**

The paddock areas to the south and west of the Barn were managed through cutting at the time of survey with a sward height of approximately 10cm. Species were dominated by grasses including Yorkshire fog *Holcus lanatus*, cocksfoot, *Dactylis glomerata* and red fescue *Festuca rubra*. Common forbs were occasional and included creeping buttercup *Ranunculus repens*, yarrow *Achillea millefolium*, common knapweed *Centaurea nigra*, common sorrel *Rumex acetosa* and creeping thistle *Cirsium arvense*.

#### **4.3.1.2 Plantation Woodland**

A small area of plantation woodland <25 years old was present in the western part of the site. Canopy species included ash *Fraxinus excelsior*, cherry *Prunus sp.* and oak *Quercus robur*, the understorey was quite open with species including hawthorn *Crataegus monogyna*, hazel *Corylus avellana*, spindle *Euonymus europaeus* and field maple *Acer campestre*. Ground flora was relatively bare, with species including cow parsley *Anthriscus sylvestris*, coarse grasses and ivy *Hedera helix*. Due to the age of the woodland it is considered to be of site level importance only.

An area to the south of the woodland will be thinned to facilitate the new driveway construction, it is recommended that where possible larger trees are retained along the driveway edge that in time will close the canopy gap, minimising the impact on the woodland area.

#### **4.3.1.3 Hedgerows**

Hedgerows were present around the boundaries of the site, however these are unlikely to be classified as 'Important' under the Hedgerow Regulations (1997) due to the lack of species diversity. However they would be classified as Hedgerow Priority Habitat under BAP criteria:

*A hedgerow is defined as any boundary line of trees or shrubs over 20m long and less than 5m wide, and where any gaps between the trees or shrub species are less than 20m wide<sup>15</sup>.*

Hedges form ecologically important linear features, linking habitats in the wider landscape. Hedgerows will be retained under the current proposals, a small gap will be created in the southern end of the hedgerow along the western boundary (H3) to facilitate a new entrance into the site, however this is not considered a significant impact.

#### **4.3.1.4 Invasive Flora and WCA Schedule 9 Species**

No invasive species or species listed on Schedule 9 of the Wildlife and Countryside Act (1981 as amended) were recorded at the site.

#### **4.3.2 Bats**

All UK species of bats are protected under the Wildlife and Countryside Act 1981 and the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. No records of bats were provided by Suffolk Biological Information Service, however this is likely due to a lack of surveys in the area rather than a lack of the species.

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<sup>15</sup> Bickmore, C. J. (2002) Hedgerow survey handbook: a standard procedure for local surveys in the UK. London: DEFRA.

#### **4.3.2.1 Roosting Bats - structures**

The Barn (B1) is of brick and block construction with vertical timber cladding externally, with pitched tiled roofs. The building is a U-shape construction (oriented west to east) with stables present within the 'arms' of the U and a large storage space in the central section. A moderate sized enclosed void is present above the southern section of the storage area.

Externally the vertical timber cladding is generally well sealed, however a small number of boards have gaps associated, providing potential crevice roosting opportunities. Timber boxed eaves are also similarly well sealed, however a small number of gaps and holes were present. Timber bargeboards were present at the gable ends with gaps associated with soffits providing potential access into the loft void in the southern section of the storage area. Roof tiles are generally in a good state of repair, however numerous gaps beneath tiles provide access to gaps between external tiles and internal felt lining.

The roofs of all section of the building are lined with bitumen felt which was well sealed with no gaps or tears noted. Internally the stable blocks were accessible to bats through the louvered windows and scattered droppings, likely *Pipistrelle sp.* and long-eared type, were present.

The enclosed loft void was access through an open staircase from the central storage area. An accumulation of droppings was present beneath the ridge beam in this section with a number of droppings adhered to the southern gable wall, indicating that an access point may be present in this location. Droppings were of various ages suggesting long-term use of the roost and two distinct types were present; likely *Pipistrelle sp.* and long-eared type. No significant accumulation of droppings was present suggesting that the roost is used by low numbers of bats and unlikely to be a maternity roost.

The proposed conversion of the Barn will cause destruction of the roost in its current location and as such a Natural England Mitigation Licence will be necessary to allow the proposed works to proceed. Further surveys should be undertaken to inform the licence application.

The proposals for the conversion include a new enclosed void space created within the southern 'arm' of the U-shape which could be used as a mitigation bat roost. New access points would be created to allow access internally and crevice and void roosting opportunities included into the design.

A small play house is present within the woodland area (B2), this timber constructed building has a pitched timber roof which is lined internally with bitumen felt. A small number of long-eared type droppings and moth wings were present below the ridge suggesting that it is used occasionally by an individual bat. Given the high light levels during the day it is considered likely that the structure is used as a night roost/ feeding perch only. This structure will be unaffected by the proposals, and no impacts are predicted.

#### **4.3.2.2 Roosting Bats – trees**

A number of trees within the southern hedgerow were considered to have low to high bat roost potential due to gaps under bark, dense ivy cladding and aerial deadwood. These trees will

not be directly impacted by the proposals, however lighting restrictions (see Section 5.1) are recommended to minimise the risk of causing disturbance to any roosts that may be present.

#### **4.3.2.3 Foraging and Commuting Bats**

The habitats surrounding within and surrounding the site provide moderate quality foraging habitat with trees and grassland providing a potential invertebrate foraging resource. Lighting minimisation recommendations provided in Section 5 should be followed to ensure that habitat within the wider site and off-site foraging opportunities are not impacted by the proposals.

#### **4.3.3 Reptiles**

All UK reptile species are protected under the Wildlife and Countryside Act 1981, with two species afforded higher levels of protection under the European Habitat Regulations.

The buildings themselves are not considered suitable for reptiles, however the surrounding grassland and woodland could be used by species such as grass snakes, common lizard and slow worms. Grassland areas are regularly managed and as such are of limited potential providing potential basking and foraging habitat, shelter opportunities are available within the boundary hedgerows and woodland area.

A new driveway will be created through the grassland areas which has the potential to disturb and/or harm reptiles if present at the time of works. Due to the small scale of the proposed works and the abundance of other suitable habitat within the site it is considered unlikely that the local reptile population will be significantly impacted.

However, it is recommended that the driveway areas are subject to precautionary clearance prior to the start of ground works to encourage any individual reptiles that may be present to disperse into adjacent suitable habitat. Driveway construction works should be undertaken during the reptiles active season (April – September) following precautionary clearance of the area (See Section 5.1 for details).

#### **4.3.4 Amphibians**

There are no waterbodies within the site however three ponds that are considered to provide suitable breeding habitat are present within the adjacent Bedfield House gardens with one pond situated adjacent to the northern boundary of the site. Great crested newts have been recorded within a pond approximately 100m north east.

The site itself provides potential foraging and shelter habitat for amphibians including great crested newts associated with grassland paddocks, woodland and hedgerows, however there will be limited impacts to these habitats.

No ponds will be directly impacted by the proposals, however clearance of areas of woodland/hedgerow and grassland to facilitate driveway and terrace construction have the potential to disturb and/or harm amphibians including great crested newts, if present at the time of works.

The proposed driveway is approximately 0.6ha in area and passes through areas within 100m of potential breeding ponds. A Natural England Rapid Risk Assessment suggests that the proposals are 'likely to cause an offence'.

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.3
Land 100-250m from any breeding pond(s)	No effect	0
Land >250m from any breeding pond(s)	No effect	0
Individual great crested newts	No effect	0
	Maximum:	0.3
Rapid risk assessment result:		<b>AMBER: OFFENCE LIKELY</b>

However ‘the risk assessment tool has been developed as a general guide only, and it is inevitably rather simplistic. The following factors are not taken into consideration for sake of simplicity, though they will often have an important role in determining whether an offence would occur: terrestrial habitat quality, timing and duration of works, detailed layout of development in relation to newt resting and dispersal. The following factors could decrease the risk: poor terrestrial habitat, small development footprint, short construction period’.

The proposed driveway is located as far away from the existing ponds as possible, and all the existing ponds in within 250m of the site are located to the north, with suitable existing terrestrial habitats surrounding the waterbodies, making it unlikely that amphibians would disperse southwards into the site. No immediate terrestrial habitat will be lost surrounding the ponds, with only small areas of suitable habitat removed to facilitate the construction of the driveway and terrace.

It is recommended that ground works are undertaken during the peak amphibian breeding season (April-May), then it is considered unlikely that there would be a significant impact on the local populations. Precautionary clearance methods (See Section 5.1) should be used to reduce the suitability of habitats prior to the start of ground works and all works should be supervised by a suitably experienced ecologist.

#### 4.3.5 Birds

##### 4.3.5.1 BAP/SPIE/Red-list Birds

A number of local BAP, national SPIE, and Schedule 1 bird records were provided by SBIS from the local area. The buildings themselves provide suitable nesting opportunities and the surrounding grassland, woodland and hedgerows provide addition nesting opportunities and a potential foraging resource.

##### 4.3.5.2 Nesting Birds

All nesting birds and their eggs are protected under the Wildlife & Countryside Act 1981.

Birds nests were recorded within the boxed eaves of the Barn and swallow nests were recorded within the Stable areas. Trees within the woodland and hedgerows also provide suitable nesting opportunities for passerine birds.

The proposed conversion works should be started outside of the bird nesting season (March-August), if this is not possible a nesting bird survey should be undertaken prior to the start of works.



Clearance of hedgerows and thinning of the woodland to facilitate the new driveway/access should be undertaken outside the bird nesting season (March-August), if this is not possible a nesting bird survey should be undertaken prior to the start of works.

#### **4.3.6 Other Mammals**

##### **4.3.6.1 Badger**

Badgers and active setts are protected under the Protection of Badgers Act 1992. Areas of grassland provide potential foraging opportunities and the woodland provides potential sett creation habitat.

No signs indicating the presence of badgers were recorded within the site. It is unlikely that badgers would be impacted by the proposals, however, precautions are detailed to protect nocturnal animals, including badgers, during the initial construction/conversion phase. No further surveys are considered necessary.

##### **4.3.6.2 Hedgehogs**

A number of hedgehog records were provided by SBIS, and although the buildings themselves are not considered suitable the surrounding grassland, hedgerows and woodland provide foraging and shelter opportunities. It is considered unlikely that the proposals would significantly impact the local hedgehog population due to the small scale of habitat loss and abundance of alternative habitat in the local area.

No further surveys are necessary, however precautionary methods (Section 5), should be followed during the construction phase to minimise the risk of causing harm to this (and other nocturnal) species.

##### **4.3.6.3 Hares**

Brown hares (SBAP and SPIE species) generally use arable land and long grassland habitats such as those adjacent to the site associated with surrounding arable farmland and are unlikely to use habitats at the site. They may occasionally pass through the site or forage within the grassland, however the proposals are not considered to impact the local population significantly. No further survey is necessary.

##### **4.3.6.4 Dormice**

There are no records of dormice within the local area and habitats within the site were generally not suitable to support dormice. Woodland lacked a dense understorey and was not well linked to other woodland in the local area. Hedgerows at the boundaries provide potential habitat for dormice, however these are not well linked to any areas of other potentially suitable habitat in the local area.

No further surveys or precautions are considered necessary.

##### **4.3.6.5 Otter/Water Vole**

The site does not contain any suitable habitat for otter or water vole, and there are no significant watercourses in the local area.

Adjacent ponds within the garden of Bedfield House may provide suitable habitat for water voles and foraging otter, however these are not linked to any significant watercourse and therefore it is considered unlikely that these species are present. No further surveys are

necessary.

#### **4.3.7 Invertebrates**

Areas of grassland, woodland and hedgerow provide potential habitat for invertebrates, however the majority of these habitats will be unaffected by the proposals. It is considered unlikely that any protected or rare invertebrates are present or would be significantly impacted by the proposals. No further surveys are necessary.

#### **4.3.8 Impact on Local Wildlife Sites & European Protected Sites**

The proposed development will not directly impact on any local wildlife sites, and there are no statutory of European Sites within impact distance.

### **4.4 Limitations and Assumptions**

The baseline conditions reported and assessed in this document represent those identified during a single site survey, on the 22<sup>nd</sup> September 2021. A reasonable assessment of habitats can be made during a single survey; however, seasonal variations cannot be observed. The survey provides an overview of the likelihood of protected species occurring on the site: Where no evidence is found, this does not mean that species are not present, or using the site. Further surveys are only recommended if there is a significant likelihood that protected species may be present and impacted by the proposed development, based on the suitability of the habitat and any direct evidence.

The desk study used records and historical data provided by SBIS, which depend on the availability of recorders and survey effort in the area, and do not list all species likely to be present. Data supplement the site visit, but absence of records does not confirm absence of species.

All areas of the site were accessible on the day of survey.

## 5 Recommendations

### 5.1 Further Surveys

The Barns are considered to provide high bat roosting potential with evidence of use by at least two species of bats, therefore further surveys should be undertaken to assess the species and numbers of roosting bats. At least three surveys should be undertaken during the bat active season (May to August/September) and include at least one dusk emergence surveys and a separate dawn re-entry survey. Survey findings will be used to inform a Natural England Mitigation Licence for the site.

### 5.2 Precautionary Methods

#### 5.2.1 Precautionary Clearance: Reptiles & Amphibians

Areas of grassland and hedgerow/woodland (approximately 500-600m<sup>2</sup>) will be cleared to create a new driveway/access for the site.

Vegetation at the site should be cleared in a two-phase operation using hand tools to avoid directly harming reptiles/amphibians that may be present:

- The first cut should be to a height of no less than c.150mm above ground level using hand tools; and
- The second phase should cut vegetation to ground level using hand tools with a minimum of one hour between phases to allow animals to disperse into adjacent habitat.

Vegetation should be cut in an south to north/east to west direction to allow individuals to disperse into surrounding suitable habitat. All arisings should be removed from the site and the area left for a period of at least 24hrs to allow wildlife to disperse prior to the start of ground works. Following this the vegetation can be removed mechanically using a small digger with a tinned bucket under the supervision of an ecologist. If reptiles are found at this stage they should be moved to areas of suitable habitat outside the construction zone that will not be impacted. If great crested newts are discovered at any time all works should stop and the project Ecologist informed.

All vegetation and site clearance works should be undertaken during the reptile active season and within the amphibian peak breeding season (April-May) under suitable weather conditions when the species are likely to be active.

#### 5.2.2 Nesting birds

Works to the Barns and any woodland/hedgerow clearance should be started outside the nesting bird season (March-August). If this is not feasible, a precautionary survey of the site prior to start of works, should be carried out, to check for active bird nests, and avoid infringing legislation which protects all nesting birds (WCA 1981). If an active nest is recorded, works will be postponed until all young birds have fledged and left the area. Schedule 1 birds such as barn owl are additionally protected from disturbance during nesting.

#### 5.2.3 Nocturnal Animals

Any deep holes or foundations left uncovered overnight should have an escape ramp (secured scaffold board), to enable any nocturnal animals that become trapped to escape.

#### 5.2.4 Sensitive Lighting

To minimise risk of disturbance to potential foraging and commuting bats using the site and surrounding habitats (both during and post development), any new external lighting should be minimised as follows:

- Any task lighting (during construction) should not be directed at adjacent trees, woodland, ponds or hedgerows.
- Any necessary security lighting should be set on short timers and be sensitive to large moving objects only.
- New lighting should be low-level, bollard-type, or directed downward and shielded to minimise light spillage where possible.
- Hoods, cowls or directional lighting should be used to avoid light directed at the sky or towards the adjacent trees and hedgerows.
- If the new access or parking areas will be lit, low-level, bollard-style lighting should be considered.
- Low pressure sodium security lights with glass glazing are recommended, as these produce the least amount of UV light. Avoid white and blue wavelengths of the light spectrum. The brightness of the lamps should be kept as low as feasibly possible for security and safety only<sup>1617</sup>.

### 5.3 Enhancement Recommendations

These additional recommendations are not legal requirements but would enhance the value of the site for wildlife, as encouraged through the NPPF, and to help achieve Suffolk BAP targets.

#### 5.3.1 Wildlife Attracting Planting

Additional tree and shrub planting at the boundaries of the grassland or within the woodland area would provide additional foraging opportunities for birds, bats and invertebrates.

The following native fruit and berry bearing species could be used: hazel *Corylus avellana*, crab apple *Malus sylvestris*, dog rose *Rosa canina*, guelder rose *Viburnum opulus*, blackthorn *Prunus spinosa*, hawthorn *Crataegus monogyna* and spindle *Euonymus europaeus*.

#### 5.3.2 Bird Boxes

Bird boxes could be installed on suitable retained trees at the boundaries of the site, within the woodland or on the converted barn. These should be installed at least 3m above the ground and should avoid direct sunlight (not directly south-facing), prevailing wind and be out of reach of cats and other predators:

- Smaller, open-fronted box, made to BTO dimensions (for spotted flycatcher and song thrush – Suffolk BAP species).

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<sup>16</sup> BCT (2014) Artificial lighting and wildlife: Interim Guidance: Recommendations to help minimise the impact artificial lighting.

<sup>17</sup> Institution of Lighting Professionals (2011) Guidance Notes for the Reduction of Obtrusive Light GN01:2011.

- Nest boxes with 32mm holes for house sparrow (SPIE species) could be added to the barn. These should be located close together for this colonial nesting species, in a sheltered, minimally disturbed area (on the western aspect).

### **5.3.3 Bat Boxes**

A bat box could be installed on retained mature trees at the boundaries of the site or within the woodland. Woodcrete boxes such as the Vivara pro Woodstone box are suitable for crevice roosting species and would be suitable for installing on mature trees at the site. Bat boxes should ideally be erected at least 3m above the ground in a southerly direction (south-east to south-west).

### **5.3.4 Hedgehog shelter**

The inclusion of a hedgehog shelter or brash pile within the woodland area would provide habitat for small mammals including hedgehogs for shelter and offer hibernation opportunities.

### **5.3.5 Compost heaps**

Retention of large compost heaps at the boundary of the site would maintain this habitat type, providing potential shelter and breeding habitat for reptiles.

## **6 Conclusion**

Evidence suggests that the Barn is used by low numbers of bats and further surveys are recommended to assess the species and numbers present to inform mitigation requirements. Areas of grassland, woodland and hedgerows could be used by reptiles and amphibians including great crested newts during their terrestrial phase. To minimise the risk of causing disturbance or harm to reptiles and great crested newts it is recommended that any suitable habitat is precautionarily cleared during the active season (April-May) prior to the start of ground works to facilitate the new access/driveway and terrace.

## **7 Appendix A – Legislation**

### **7.1 Habitat Regulations**

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 transpose EU Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive) and the Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive) into domestic law, making it an offence to deliberately capture, kill or disturb wild animals listed under Schedule 2 of the Regulations. It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time).

### **7.2 Wildlife & Countryside Act**

The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way Act (CROW) 2000 and the Natural Environment and Rural Communities Act (NERC) 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act; intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act; intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act.

Sites of Special Scientific Interest (SSSI) are designated under this Act.

Special Protection Areas (SPA) are strictly protected sites, designated under the Birds Directive, for rare and vulnerable birds and for regularly occurring migratory species.

### **7.3 Natural Environment & Rural Communities Act**

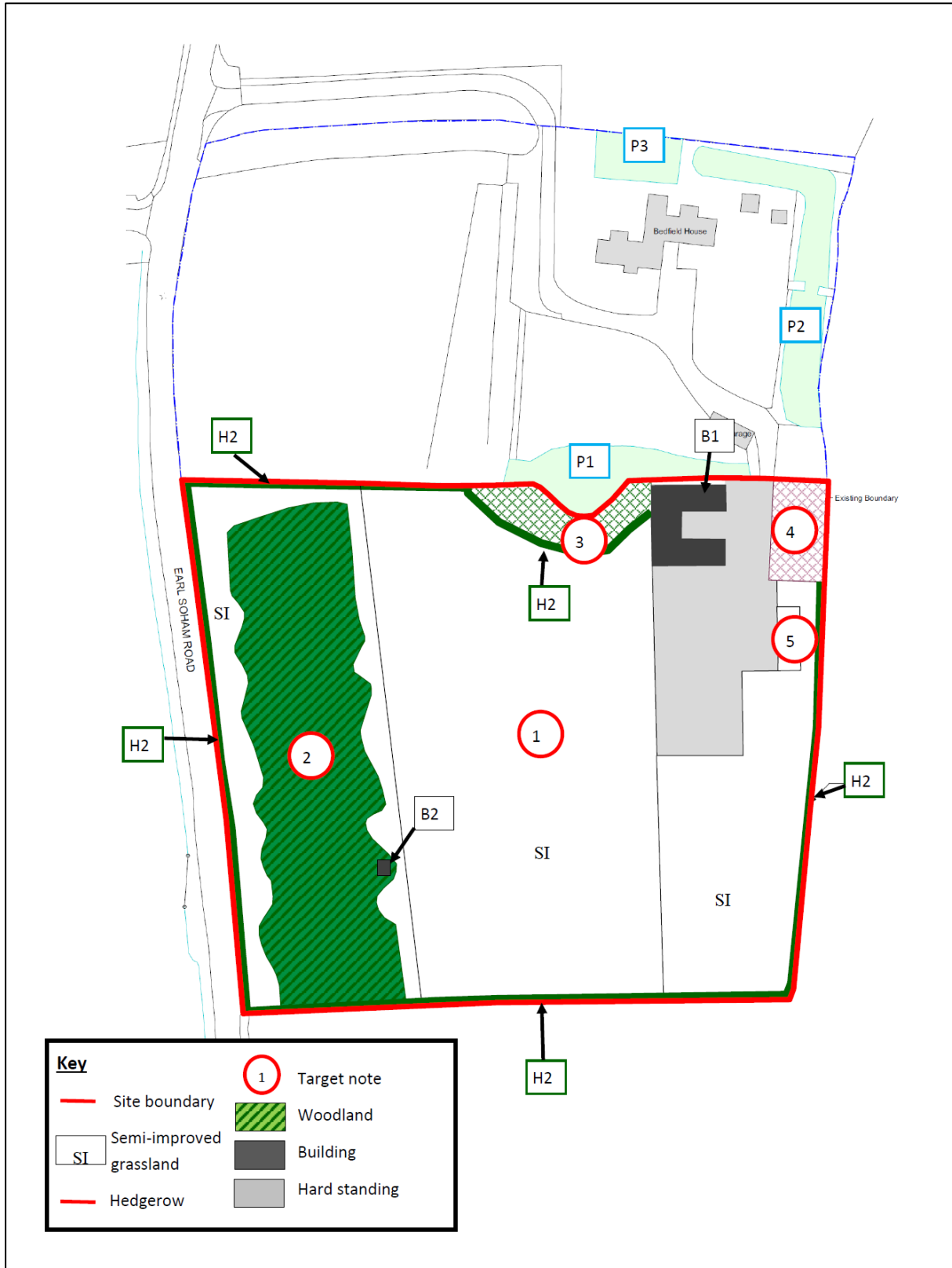
The NERC 2006 places a duty on authorities to have due regard for biodiversity and nature conservation during the course of their operations.

### **7.4 Biodiversity Action Plans**




The UK Biodiversity Action Plan (UKBAP) was organised to fulfil the Rio Convention on Biological Diversity in 1992, to which the UK is a signatory.

There is no longer a UK Biodiversity Action Plan; this has been replaced by the UK Post-2010 Biodiversity Framework (2012). The England Biodiversity Strategy has been replaced by Biodiversity 2020: A strategy for England's wildlife and ecosystem services (2011). As a result, the BAP process has been devolved to local level with each county deciding its own way forward.




## 8 Appendix B - Phase 1 Habitat Survey Plan










## Target Notes





Target note	Habitat Description	Photo
B1	U-shaped Barn with stables and storage area. Brick, block construction with vertical timber cladding to the exterior. Pitched pan tiled roof.	
B1a	Scattered droppings & urine stains within the stable areas – likely pipistrelle & long-eared type.	
B1b	Accumulation of droppings below the ridge beam within the enclosed loft void – likely long-eared type with scattered pipistrelle.	



<p>B1c</p>	<p>Droppings adhered to the southern gable of the internal void.</p>	
<p>B2</p>	<p>Timber play house. Small accumulation of long-eared type droppings and moth wings below ridge beam.</p>	
<p>1</p>	<p>Semi-improved grassland – managed through mowing and grazing. Species dominated by grasses with occasional common forbs.</p>	

2	<p>Plantation woodland with canopy species of ash, oak and cherry. Relatively open understorey with species including hazel, spindle, hawthorn and field maple.</p>	
3	<p>Shrub/dense scrub surrounding Pond P1. Species include dogwood, mahonia, willow and rose.</p>	
4	<p>Kitchen garden</p>	

5	Compost heaps/grass clippings	
H1	Immature willow hedgerow.	
H2	4m tall, 1.5m wide along the line of a dry ditch. Species include cherry plum, hawthorn, blackthorn and dogwood.	
H3	4m tall, 1m wide, regularly managed hedgerow along the line of a dry ditch. Species include elm, blackthorn, dog rose, hawthorn and field maple.	

<p>H4</p>	<p>Hedgerow with trees, 1.5m tall, 1m wide with species including field maple, hawthorn, holly and blackthorn. Standard trees include oak, ash and field maple with low to high bat roost potential.</p>	
<p>H5</p>	<p>3-8m tall, 1.5m wide with minimal management. Species include elm, blackthorn and hawthorn with standard field maple and ash.</p>	
<p>P1</p>	<p>Holding very little water at the time of survey, with 100% aquatic vegetation including lesser reedmace, sedges and reed.</p>	
<p>P2</p>	<p>Large moat/pond with 100% aquatic vegetation cover including sedges, broad-leaved pondweed and duckweed. 60% shade from overhanging trees. Surrounded by garden habitats, hedgerows and arable farmland.</p>	
<p>P3</p>	<p>Small pond with duckweed covering 100% of the water surface. Steep banks and 40% shade from surrounding trees. Surrounded by garden habitats and hedgerows.</p>	