

# Adonis Ecology Ltd.

## Preliminary Ecological Appraisal of Land at Forge Barn, Wyverstone, Suffolk to Support a Planning Application

Project Ref: 1402

Prepared on behalf of:

**Mr Steve Ruthen**

Forge Barn  
Mill Road  
Wyverstone  
Suffolk  
IP14 4SE

**By:**



**Adonis Ecology Ltd.**

Unit 11 Lavenham Studios  
Brent Eleigh Road  
Lavenham, Sudbury  
Suffolk, CO10 9PE  
Tel: 01787 249 160

E-mail: [askus@adoniseology.co.uk](mailto:askus@adoniseology.co.uk)  
[www.adoniseology.co.uk](http://www.adoniseology.co.uk)

Registered in England and Wales No: 6208092  
Registered Office: Crane Court, 302 London Road, Ipswich, IP2 0AJ.

## Quality Assurance


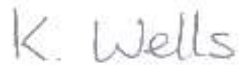
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The findings outlined within this report and the data we have provided are to our knowledge true, and express our bona fide professional opinions. This report has been prepared and provided in accordance with the Chartered Institute for Ecology and Environmental Management (CIEEM) Code of Professional Conduct and the British Standard BS 42020:2013 which provides a code of practice for biodiversity in planning and development (BSI, 2013). This standard also recommends compliance with CIEEM Guidelines for Preliminary Ecological Appraisals (CIEEM, 2013) and Guidelines for Ecological Report Writing (CIEEM, 2017) which includes model formats for Preliminary Ecological Appraisal and Ecological Impact Assessment.

As far as the author and report checker are aware, the only differences that occur in this report from the recommended layouts are:

- to enable greater clarity and reduce repetition (e.g. the report author is listed once on the quality assurance page in this report rather than on the front page, quality assurance page and introduction as in the CIEEM model formats);
- where there are inconsistencies in the guideline documents (e.g. the list of what should be included in the summary of an ecological report highlighted in the CIEEM Guidelines for Ecological Report Writing is different to that shown in the model formats in the same document); and
- to retain a proportionate approach in accordance with BS 42020:2013.

No method of assessment can completely remove the possibility of obtaining partially imprecise or incomplete information. Therefore, we cannot guarantee that this assessment completely defines the degree or extent of the occurrence of various species or habitats on the site, or the effectiveness of recommended actions as described in the report. In addition, as the ecological situation of a site is dynamic, this assessment pertains only to the conditions noted during the site visit. Therefore, to achieve the objectives of assessment as stated in this report, the conclusions are based on the information that was available during the time of the assessment and within the limits prescribed by our client in the agreement.

	Name	Signature
<b>Report prepared by:</b>	Stewart Wesley BSc (Hons) MCIEEM	
<b>Report checked by:</b>	Katrina Wells BSc (hons) MSc GradCIEEM	
<b>Survey conducted by:</b>	Stewart Wesley. Details of relevant training and experience available on request.	
<b>Date of survey:</b>	5 <sup>th</sup> January 2021	

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## 0 SUMMARY

- 0.1 Adonis Ecology Ltd. was commissioned by Mr Steve Ruthen to undertake a Preliminary Ecological Appraisal (PEA) of land at Forge Barn, Mill Road, Wyverstone, Stowmarket, Suffolk, IP14 4SE, Grid Reference TM 034 674. It was understood that it is proposed to remove the existing Nissan hut and construct a single residential dwelling on the site, with associated access, parking and garden areas.
- 0.2 A desk study was undertaken, in addition to an extended Phase 1 Habitat survey which was conducted on the 5<sup>th</sup> of January 2021. The site was checked for preferred habitat types, and signs or evidence of protected species and NERC Act 2006 Section 41 species and habitats.
- 0.3 The proposed works were considered to pose a potentially significant risk of impact on the following protected and/or Section 41 species/species groups:
- low risk of indirect impact to foraging and/or commuting bats from additional lighting on site;
  - moderate risk of harm to likely low numbers of great crested newts *Triturus cristatus* that are known to breed in nearby ponds and would likely use terrestrial habitats on site;
  - low risk of harm to individual badgers *Meles meles*, reptiles, hedgehogs *Erinaceous europaeus* and common toads *Bufo bufo* during site clearance works;
  - low risk of harm to common and Section 41 nesting birds from removal of the Nissan hut and trees/shrubs on site if any such are undertaken during the bird nesting season (taken to be March to end September).
- 0.4 A Natural England European Protected Species Licence for great crested newts will be required to allow the works to proceed lawfully, or the site will need to be registered under the Natural England District Level Licence (DLL). It was considered that there was sufficient space on the site to provide suitable habitat to mitigate any impact to great crested newts from habitat loss, with a medium sized population known in the local area (Adonis Ecology, 2020).
- 0.5 Lighting precautions are outlined to reduce risk of impact to potentially roosting, foraging and/or commuting bats that may occur on or adjacent to the site. Further impact avoidance measures are outlined for reptiles, hedgehogs and common toads, and should be undertaken in conjunction with any measures for great crested newts if required.
- 0.6 Overall, the site was considered to be of moderate value for wildlife at a local level, with potential for low numbers of great crested newts as well as other protected and/or Section 41 species. With the impact avoidance measures outlined in this report completed, and either mitigation implemented for great crested newts under a site licence, or the site being registered under the Natural England DLL, it was considered the proposed development could proceed with minimal risk of impact to protected or Section 41 species, Section 41 habitats or the local biodiversity. Further, there was considered to be some scope to enhance the site to the benefit of local wildlife.

# 1 INTRODUCTION

## 1.1 Background

1.1.1 Adonis Ecology Ltd. was commissioned by Mr Steve Ruthen to undertake a Preliminary Ecological Appraisal (PEA) of land at Forge Barn, Mill Road, Wyverstone, Stowmarket, Suffolk, IP14 4SE, Grid Reference TM 034 674.

### *Development Description*

1.1.2 The plan used to determine the boundaries of the site and the likely impacts from the proposed development was “Site and Location Plans”, Drawing No. 7388/200, rev D, dated August 2020 which was produced by Thurlow Architects.

1.1.3 The site was approximately 0.25ha in size and consisted of areas of scrub and trees either side of part of a pond/large ditch, a large, derelict Nissan hut with further adjacent scrub habitat and an area of amenity grassland and small trees. It was understood that it is proposed to construct a new access driveway over the pond (which will be retained as existing), with the Nissan hut to be demolished to make space for a new single dwelling with an associated parking area and garden. This will result in small areas of trees, scrub and shrubs being removed.

1.1.4 It was further understood that the Local Planning Authority (LPA) are expected to require a PEA to accompany the planning application for the site.

### *Aim and Objectives*

1.1.5 The aim of this report is to determine the potential impacts of the proposed development of the site on significant local biodiversity, taking into account the species and habitats that may be affected, positively or negatively, and the potential for impact avoidance, mitigation and enhancement measures on the site.

1.1.6 To achieve this aim, the report has the following objectives:

- to identify and describe potentially significant ecological impact risks relevant to planning associated with the proposed development;
- to identify ways in which any significant risk of deleterious impacts could be avoided, wherever reasonably possible;
- for any significant ecological risks that could not reasonably be avoided, to describe surveys that would be required to confirm presence/absence and severity of impact, and outline likely mitigation options;
- to identify and describe ways in which the proposed development could enhance local biodiversity.

## **1.2 Planning Policy and Legislation**

1.2.1 Planning policy and guidance considered for this report included:

- National Planning Policy Framework (NPPF);
- National Planning Practice Guidance (NPPG) – Natural Environment.

1.2.2 Legislation considered for this report included:

- Protection of Badgers Act 1992;
- Wildlife and Countryside Act 1981, as amended;
- Countryside and Rights of Way Act 2000;
- Natural Environment and Rural Communities (NERC) Act 2006;
- Conservation of Habitat and Species Regulations 2017, as amended.

1.2.3 Key considerations from the NPPF and NPPG related to ecology and development include that impacts on legally protected species and habitats, as well as NERC Act (2006) Section 41 species and habitats are a material consideration for individual planning consents (MHCLG, 2019).

1.2.4 The NPPF also promotes the enhancement of natural and local environments through planning, and encourages a move towards securing measurable net gains for biodiversity (MHCLG, 2019).

## **2 METHODOLOGY**

### **2.1 Desk Study**

2.1.1 On behalf of Adonis Ecology Ltd., Suffolk Biodiversity Information Service (SBIS) undertook a search for records of protected, Section 41 and rare species, as well as statutory and non-statutory wildlife sites within 2km of the proposed development site.

2.1.2 Ordnance Survey maps, Google Earth and the Multi-agency Geographic Information for the Countryside (MAGIC) interactive map were used to locate ponds within a 500m radius of the site, as well as to assess the general surroundings of the site. The MAGIC map was also used to determine whether the site falls within any impact risk zones of nearby statutory wildlife sites, and to determine the closest Natura 2000 site to the proposed development where this falls further than 2km from the site.

2.1.3 These results were then combined with the findings of the site survey in order to assess the risk of ecology issues relevant to planning occurring on site.

## 2.2 Site Survey

### *Habitats, Plants and Surroundings*

2.2.1 The site was visited on the 5<sup>th</sup> of January 2021 to survey for ecology issues. This included the following:

- a Phase 1 Habitat Assessment recording dominant and higher plant species present on site, and a survey for Japanese knotweed *Fallopia japonica*, giant hogweed *Heracleum mantegazzianum* and other non-native, invasive plant species as listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended);
- an assessment of the suitability of habitats present on site for widespread reptiles, bats, great crested newts *Triturus cristatus* and other protected or Section 41 species;
- an assessment of the habitats surrounding the site and in the local area;
- a direct survey for evidence of protected species as far as possible within seasonal constraints, e.g. for bats and badgers *Meles meles*.

### *Survey Constraints*

2.2.2 The survey was undertaken outside of the peak time of year to survey the ecological value of a site, which is taken to be between April and September, though it was considered that sufficient plant species would be visible and could be identified at this time of year to determine habitat types on site, and to assess the likely value of these habitats for local wildlife. However, some later flowering species in particular may not have been visible above ground or identifiable to species level.

## 2.3 Protected Species

### *Bats – Survey Methodology*

2.3.1 A Preliminary Roost Assessment (PRA) was conducted in daylight, on the Nissan hut and trees on site, during the site visit on the 5<sup>th</sup> of January 2021. The assessment was conducted by an ecologist who holds a Natural England Level 2 Class licence for bats (2015-15636-CLS-CLS).

2.3.2 The bat survey methods followed Natural England Bat Mitigation Guidelines (Natural England, 2004) and Bat Conservation Trust (BCT) Good Practice Guidelines (Collins, 2016) and therefore considerations were:

- the availability of access points of a size large enough to allow entry of bats to roosts;
- the presence and suitability as roosts of cracks, crevices, holes, dense ivy *Hedera helix* covering and other places;
- signs of bat activity or presence.



2.3.3 Definite signs of bat activity were taken to be:

- the bats themselves;
- droppings;
- dead bats;
- audible bat squeaks;
- scratch marks;
- urine splatter.

2.3.4 Signs of possible bat presence were taken to be:

- grease marks;
- moth and butterfly wings.

2.3.5 Trees were checked externally for any gaps, holes, cracks or crevices suitable for roosting bats, as well as any signs or evidence of bats, in accordance with Natural England (2004) and BCT (Collins, 2016) guidelines.

2.3.6 The suitability of places to roost was assessed based upon potential for access and lack of cobwebs and dirt.

2.3.7 Inspection survey is a suitable method at any time of year for determining presence or likely absence of bats, according to Natural England guidelines (English Nature, 2004).

#### *Badgers*

2.3.8 The badger assessment, also conducted during the site visit consisted of a thorough search of the proposed development site for signs and evidence of badgers and badger setts.

2.3.9 Definite signs of badger activity were taken to be:

- badgers themselves;
- badger latrines;
- badger paw prints;
- badger hairs.

2.3.10 Signs of possible badger presence were taken to be:

- well trampled animal paths;
- snuffle holes;
- small piles of dry grass and similar on paths;

- any further signs.

*Great Crested Newt Assessment*

2.3.11 Adonis Ecology Ltd. undertook presence/absence and population estimate surveys of all except one pond that lies within 250m of the site, as well as the pond on site for another nearby project in Spring 2020, and therefore it was not considered necessary to assess the pond on site or other nearby ponds for suitability for great crested newts during the site visit.

2.3.12 The site itself was checked for terrestrial habitats and features suitable for foraging and sheltering great crested newts. The assessment was undertaken by a holder of a Natural England Level 2 Class Licence (2020-50743-CLS-CLS)

*Nesting Bird Assessment*

2.3.13 A nesting bird assessment was also undertaken during the site visit. Considerations were:

- the presence and suitability of places as nest/roost sites;
- signs of past nesting bird activity or presence.

2.3.14 Definite signs of nesting bird activity were taken to be:

- old “nests”;
- eggshells.

2.3.15 Trees and shrubs on site were assessed for suitability as nesting sites, and signs and evidence of old nests were searched for.

### **3 RESULTS AND EVALUATION**

#### **3.1 Site Location and Description**

*Site Location and Description*

3.1.1 The site was located off Mill Road, a small country lane in a rural location, approximately 355m to the south of Wyverstone Street and 870m to the southwest of Wyverstone, both of which were small villages, and approximately 8.7km to the north of the centre of Stowmarket (Google Earth, 2021).

3.1.2 The site was approximately 0.25ha in size and consisted of areas of scrub and trees either side of part of a pond/large ditch, a large, derelict Nissan hut with further adjacent scrub habitat and an area of amenity grassland and small trees .

## 3.2 The Surroundings

### *Description of Site Surroundings*

- 3.2.1 Immediately to the west of the site was further land associated with Forge Barn, which consisted of areas of concrete and gravel, a large garden area which was largely well-managed, though with some areas of tall ruderal habitat, particularly associated with a large moat. The moat lay approximately 11m from the proposed development site. Surveys of this pond conducted by Adonis Ecology Ltd. in spring 2020 for another nearby site showed this pond to support a low population of great crested newts, with a maximum adult count of three (Adonis Ecology, 2020).
- 3.2.2 The site was bordered by the quiet, single track Mill Road to the north, beyond which was a large, well-managed residential garden with some mature trees. Immediately to the east was another residential dwelling and large, mature garden, with a farmstead beyond containing some agricultural buildings. Immediately to the west was another residential dwelling with a small garden and a large associated meadow. To the south was a small patch of rough grassland and scrub, beyond which was an arable field (Google Earth, 2021).
- 3.2.3 Beyond this, the habitats were largely dominated by individual residential properties, grassland meadows and beyond, predominantly arable farmland with occasional hedgerows and small village/hamlet areas (Google Earth, 2021).

### *Waterbodies within 500m*

- 3.2.4 Adonis Ecology Ltd. undertook Habitat Suitability Index (HSI) assessments of the vast majority of ponds and waterbodies within 250m of the site in spring 2020 for another proposed development site which lay approximately 22m to the northeast of the northern boundary of the land at Forge Barn. The 1:10000 Ordnance Survey map provided by Promap (2021) showed only one additional pond/waterbody within 250m of the proposed development site which had not been assessed or surveyed in spring 2020, this being approximately 145m to the south of the southern boundary of the site.
- 3.2.5 The population estimate survey of the local ponds had revealed a medium sized population with a maximum count of 49 in all ponds in any one survey night (Adonis Ecology, 2020).

### *Woodlands within 500m*

- 3.2.6 There was a relatively small woodland copse approximately 250m to the northeast of the site and another smaller woodland copse approximately 495m to the northwest of the site. No other woodland occurred within 500m of the site and the closest larger area of woodland to the site was approximately 5km to the north (Google Earth, 2021).

Table 1: Key Habitat Features Surrounding Land at Forge Barn, Wyverstone

Feature	Value
Percentage deciduous tree cover within 500m of site	2%
Percentage non-illuminated tree/tall shrub cover (over 4m) within 50m of the site	20%
Number of non-illuminated tree/tall shrub lines within 50m of the site	5
Distance to nearest medium-large pond, lake, river or open stream	0m to pond
Percentage of rough grassland within 500m of the site	20%
Degree to which surrounding 500m is built up (rural, suburban, urban)	Rural

#### *Statutory Designated Sites*

- 3.2.7 There were no statutory wildlife sites within 2km of the proposed development site (SBIS, 2021), the closest being The Gardens, Great Ashfield Site of Special Scientific Interest (SSSI) which lies approximately 3.45km to the east of the proposed development site. The closest Natura 2000 site to the proposed development site was the Waveney & Little Ouse Valley Fens Special Area for Conservation (SAC) which lay approximately 11.3km to the north of the site (MAGIC, 2021).
- 3.2.8 The site falls within Impact Risk Zones of the above and other sites, but there was no requirement for the Local Planning Authority (LPA) to consult Natural England on residential developments in this location (MAGIC, 2021).

#### *Non-Statutory Designated Sites*

- 3.2.9 There were no non-statutory wildlife sites within 2km of the proposed development site (SBIS, 2021).

### **3.3 Building and Significant Species Signs on Site**

- 3.3.1 A Phase 1 Habitat plan showing the building on site and highlighting any key features found is provided in Figure 1 in Appendix 1.
- 3.3.2 Towards the centre of the site was a large, derelict Nissan hut (see Photograph 1 in Appendix 2). The Nissan hut had a narrow metal and wood frame which provided no potential for roosting bats. The corrugated metal sheet covering was collapsing in many places and also provided no potential for roosting bats. No signs or evidence of bats were found in or on the hut. A low number of old bird nests were observed within the hut. There was a significant amount of log piles, refuse and laying dead wood internally, with the larger of the piles being towards the northern end. The southern end was becoming overgrown, with small cherry *Prunus* sp. trees and elder *Sambucus nigra* shrubs growing within the hut, in addition to bramble *Rubus fruticosus* agg., ivy and nettles *Urtica dioica* (see Photograph 2 in Appendix 2). Some hart's tongue fern *Asplenium scolopendrium* and male fern *Dryopteris filix-mas* were also present.

### 3.4 Habitats and Significant Species Signs on Site

- 3.4.1 A Phase 1 Habitat plan showing the habitats on site and highlighting the key features found in the area of impact is provided in Figure 1 in Appendix 1.
- 3.4.2 To the east of the hut was an overgrown area containing tall ruderal dominated by common nettles at the northern end, some dense bramble scrub to a height of approximately 2.5m in the centre and an area of sparse nettles, bare earth and small trees (mostly cherry and other prunus *Prunus* spp.) to the south (see Photograph 3 in Appendix 2).
- 3.4.3 To the north of the Nissan hut was an area of concrete, to the north and east of which was tall ruderal and scrub habitat dominated by common nettles, blackthorn *Prunus spinosa* and bramble (see Photograph 4 in Appendix 2). Within this area, at the northeast corner of the Nissan hut was a large hazel *Corylus avellana* within which was an old bird nest. The scrub habitat lay on the banks of a pond/enlarged ditch (see Photograph 5 in Appendix 2). This pond was also surveyed for presence/absence of great crested newts by Adonis Ecology Ltd. in the spring of 2020, with great crested newts found to be absent in this pond (Adonis Ecology, 2020). To the northern side of the pond was an area of scrub, ruderal and tree habitat (see Photograph 6 in Appendix 2). Small areas of nettle in this habitat had been cleared, with other areas being bare or covered with moss, but elder, hazel, hawthorn *Crataegus monogyna* and blackthorn scrub remained, as well as some dense bramble and ivy scrub and some small and moderate sized trees including weeping willow *Salix babylonica* and horse chestnuts *Aesculus hippocastanum*. There was a large horse chestnut at the far southeast corner of the site. Neither this nor any of the other trees in this area had any potential for roosting bats. One small animal burrow was found on the southern bank of the pond. No signs or evidence of water voles were found associated with the pond (nor were observed at any time during the great crested newt presence/absence survey in spring 2020) and it was considered the hole was most likely used by rats.
- 3.4.4 A narrow (1m wide) strip of tall ruderal habitat lay adjacent to the western wall of the Nissan hut, which was dominated by common nettles and bramble, with false oat grass *Arrhenatherum elatius*, spear thistle *Cirsium arvense*, teasel *Dipsacus fullonum*, white bryony *Bryonia dioica*, willowherb *Epilobium* sp. also present. Adjacent to this strip was some short cut (approximately 4cm in height) grassland within which were three young trees which included a paper birch *Betula papyrifera* (see Photograph 7 in Appendix 2).
- 3.4.5 The short grassland habitat continued to the south of the Nissan hut. Within this area were again some small trees, mostly fruit trees including cherry trees (see Photograph 8 in Appendix 2). This included a small patch of prunus trees with some bare ground beneath, within which were some possible badger snuffle holes. At the far southern end of the site was an area of low, bramble dominated scrub over a small, raised area of earth.
- 3.4.6 Other than the bird nests found and possible badger snuffle holes, no specific signs or evidence of any protected or Section 41 species were found on site and there were no Schedule 9, non-native, invasive plant species.

### 3.5 Evaluation – Species and Habitats

3.5.1 Tables 2 and 3 below summarise the site evaluation for protected and Section 41 species. The following explains each column:

- **Species or Species Group:** the protected species or group of protected species being assessed. Some species and species groups in Table 2 are also Section 41 species. Only those species where the relevant legislation is limited to Section 41 are included in Table 3.
- **Species present in data search:** summarises relevant findings for that species or species group from the data search.
- **Signs found:** indicates whether signs of that protected species or species group were found in the zone of influence during the survey visit or visits.
- **Connectivity of site to other suitable habitat:** indicates, for that species or species group, the relative degree to which the site is considered to be connected to suitable habitat, taking into account the quantity, suitability and distance of nearby suitable habitat. Habitat out to 500m from the site is taken into account when considering this connectivity.
- **Estimated zone of influence carrying capacity:** indicates the estimated size of population the zone of influence could potentially support (i.e. the size of population that could be affected by the proposed works), given the suitability of habitat and the quantity of suitable habitat found during the survey visit and desk study. A high level would indicate the zone of influence could support a relatively large population for the local area.
- **Likelihood of presence in zone of influence:** how likely individuals of the species are to occur with the zone of influence (area of potential impact), taking into account the findings of the data search, signs found on site (where there would be a reasonable likelihood of finding of finding signs, if the species was present, in the survey visits undertaken), connectivity to other suitable habitat, and site carrying capacity (as smaller populations due to a lower site carrying capacity would be more likely to have gone extinct or failed to establish). The zone of influence may include only parts of the site and/or may extend off site, depending upon the scale and form of development and the ecology of the species concerned.

3.5.2 Where the likelihood of presence of any species or species group was considered to be greater than negligible (highlighted in red), the legislation surrounding such species and the risk are detailed in the following section.

Table 2: Evaluation of Protected Species Likelihood on Land at Forge Barn, Wyverstone

Species or species group	Species present in data search	Signs found	Connectivity of site to other suitable habitat	Estimated zone of influence carrying capacity	Likelihood of presence in zone of influence
Roosting bats – Nissan hut	Common pipistrelle, soprano pipistrelle, brown long-eared, noctule, Daubenton's. Natterer's and barbastelle	None*	Moderate	Negligible	Negligible
Roosting bats - trees		None*		Negligible	Negligible
Foraging/ commuting bats		N/A		Moderate	<b>Moderate</b>
Badger setts	Yes	None	Moderate	Negligible	Negligible
Badger foraging/ dispersing		Possible snuffle holes		Low	<b>Low</b>
Dormouse	No	None*	Negligible	Negligible	Negligible
Otter	Yes	None	Low	Negligible	Negligible
Water vole	No	None	Low	Negligible	Negligible
White-clawed crayfish	No	None*	Low	Negligible	Negligible
Great crested newts - breeding	Yes	Shown absent in pond on site in spring 2020	High	Negligible	Negligible
Great crested newts – dispersing and refuges		None*		Low	<b>High</b>
Reptiles	Grass snake and slow-worm	None*	Low	Low	<b>Low</b>
Schedule 1 nesting birds	Barn owl, black redstart, fieldfare, green sandpiper, hen harrier, hobby, kingfisher merlin, peregrine, red kite and redwing	None	Low	Negligible	Negligible
Common nesting birds	Numerous	Low numbers of old nests	High	Low	<b>High</b>
Protected plants/fungi	No	None	Low	Negligible	Negligible
Protected invertebrates	No	None*	Low	Negligible	Negligible
Other protected species relevant to development	No	None*	None	None	None



\* Denotes where signs and evidence are unlikely to be found in a single survey visit, even if species present.

**Table 3: Evaluation of Section 41 Species Likelihood on Land at Forge Barn, Wyverstone**

Species or species group	Species present in data search	Signs found	Connectivity of site to other suitable habitat	Estimated zone of influence carrying capacity	Likelihood of presence in zone of influence
Hedgehog	Yes	None*	High	Very Low	<b>Low</b>
Brown hare	Yes	None	Very Low	Negligible	Negligible
Polecat	No	None*	Very Low	Negligible	Negligible
Harvest mouse	No	None*	Low	Negligible	Negligible
Common toad	Yes	None*	High	Low	<b>Moderate</b>
Section 41 plants and fungi	No	None	Low	Negligible	Negligible
Section 41 breeding birds	Cuckoo, grasshopper warbler, grey partridge, house sparrow, lapwing, reed bunting, skylark, spotted flycatcher, turtle dove and yellowhammer	None	Moderate	Negligible	<b>Very Low</b>
Section 41 invertebrates	No	None*	Low	Negligible	Negligible
Section 41 fish	No	None*	None	Negligible	Negligible
Other Section 41 species	No	None	None	None	None

\*Denotes where signs and evidence are unlikely to be found in a single survey visit, even if species present.

3.5.3 Table 4 below lists the Section 41 habitats that are most likely to be encountered inland in lowland England, their occurrence on site and the amount of each habitat considered likely to be impacted by the proposed development. Habitats on site were assessed against JNCC criteria for UK BAP habitats (JNCC, 2016), which are those habitats listed for Section 41.

**Table 4: Section 41 Habitats and Amounts Expected to be Impacted by Proposed Development of Land at Forge Barn, Wyverstone**

Section 41 Habitats	Approximate Amount on site (ha unless otherwise stated)	Comments	Likely amount of impact (ha/m)
Rivers	0	No similar habitat on site	0
Ponds	0	Pond on site which was shown not to support breeding great crested newts is not considered to meet S41 criteria	0
Eutrophic Standing Waters	0	No similar habitat on site	0
Arable Field Margins	0	No similar habitat on site	0



Section 41 Habitats	Approximate Amount on site (ha unless otherwise stated)	Comments	Likely amount of impact (ha/m)
Hedgerows	0m	No similar habitat on site	0
Traditional Orchards	0	No similar habitat on site	0
Wood Pasture & Parkland	0	No similar habitat on site	0
Lowland Beech & Yew Woodland	0	No similar habitat on site	0
Wet Woodland	0	No similar habitat on site	0
Lowland Mixed Deciduous Woodland	0	Area of scrub and trees at northern end of site not considered to meet S41 woodland criteria	0
Lowland Dry Acid Grassland	0	Grassland on site lacked acid grassland indicator species	0
Lowland Calcareous Grassland	0	Grassland on site lacked calcareous grassland indicator species	0
Lowland Meadows	0	Grassland on site species poor and lacked sufficient unimproved neutral grassland indicator species	0
Coastal and Flood Plain Grazing Marsh	0	No similar habitat on site	0
Lowland Heathland	0	No similar habitat on site	0
Purple Moor-grass and Rush Pastures	0	No similar habitat on site	0
Lowland Fens	0	No similar habitat on site	0
Reedbeds	0	No similar habitat on site	0
Lowland Raised Bog	0	No similar habitat on site	0
Open Mosaic Habitats on Previously Developed Land	0	No similar habitat on site	0

### 3.6 Overall Ecological Value of the Site

3.6.1 Overall, the site was considered to be of likely moderate value for wildlife at a local level, with the predominant value coming from the site's rural location, the more natural area of habitat to the north of the site and the low potential of the site to act as terrestrial habitat for great crested newts that are known to occur in the local area. This can also be seen from evaluation of the site using the criteria as set out in Table 5 in Appendix 3.

## 4 LEGISLATION AND IMPACT RISK ASSESSMENT

### 4.1 Bats

#### *Summary of Relevant Legislation*

4.1.1 Bats are protected under the Conservation of Habitats and Species Regulations 2017 (as amended), as well as the Wildlife and Countryside Act 1981 as amended by the Countryside and Rights of Way Act 2000. Offences likely to be relevant to development are to:

- deliberately capture, injure or kill a bat;
- deliberately disturb a bat in a way that would affect its ability to survive, breed, rear young, hibernate or migrate or significantly affect the local distribution or abundance of the species;
- damage or destroy a roost;
- intentionally or recklessly disturb a bat at a roost;
- intentionally or recklessly obstruct access to a roost.

#### *Foraging and Commuting Bats – Impact Risk*

4.1.2 The areas of scrub and trees to be directly impacted by the works were considered to provide a small amount of moderate value habitat for foraging and/or commuting bats, whilst the Nissan hut with associated vegetation and areas of grassland were considered to have only low intrinsic value for foraging bats. The pond would provide some further potential foraging habitat for bats, though other than the access drive to be bridged over the pond, there will be no direct impact to the pond itself. It was considered that, given the extent of other tree, shrub and pond habitats in the nearby surroundings, the loss of a very small amount of moderate value habitat and small areas of low value habitat from the site would pose a negligible risk of direct impact to foraging and/or commuting bats.

4.1.3 However, any additional lighting on site, either during works or post-development, would pose a moderate risk of indirect impact to likely low numbers of potentially foraging and/or commuting bats. Therefore, impact avoidance measures outlined in Section 5 of this report should be undertaken to reduce this risk to negligible.

### 4.2 Badgers

#### *Summary of Relevant Legislation*

4.2.1 Badgers are not considered rare but are protected, along with their setts, under the Protection of Badgers Act 1992, and Schedule 6 of the Wildlife and Countryside Act (1981) as amended for animal welfare reasons. The following are offences under the Protection of Badgers Act 1992:

- wilfully kill, injure, take or attempt to kill, injure, possess or take a badger;
- cruelly ill-treat a badger;
- dig for a badger;
- disturb a badger while it is occupying a sett, or cause a dog to enter a sett;
- interfere with a badger sett by e.g. damaging, destroying or obstructing a sett or any part of it.

4.2.2 The Protection of Badgers Act 1992 defines a badger sett as “any structure or place which displays signs indicating current use by a badger” (OPSI, 2007).

4.2.3 More recent guidance (Natural England, 2009) states that badgers are relatively tolerant of moderate levels of disturbance, however, any activity that is likely to cause interference (such as damaging a sett tunnel or chamber or obstructing access to a sett entrance) will require a licence.

#### *Impact Assessment*

4.2.4 Some possible badger snuffle holes were observed on the site, and given the rural surroundings and as there were records of badgers in the local data search (SBIS, 2021), it was considered possible that badgers would on occasion use the site. However, there were no signs of any badger setts on or near the site, and the risk of any impact to a badger sett from the proposed works was considered to be negligible. Given the extent of other suitable habitats in the surroundings, the lack of any significant extent of foraging signs on the site, and as much of the grassland areas of the site would be retained, the loss of any small amount of scrub and shrub habitat from the proposed development was also considered likely to have a negligible impact on any local badger population.

4.2.5 However, it was considered the proposed works on site would pose a low risk of harm to badgers during the works, and the general precautions outlined in Section 5.3 of this report should be completed to reduce this risk to negligible.

### **4.3 Herpetofauna**

#### *Great Crested Newts – Relevant Legislation*

4.3.1 Great crested newts are protected under the Conservation of Habitats and Species Regulations 2017 (as amended), as well as the Wildlife and Countryside Act 1981 as amended by the Countryside Rights of Way Act 2000. Offences likely to be relevant to development are to:

- damage or destroy a breeding site or resting place;
- intentionally or deliberately capture or kill;
- intentionally injure;

- deliberately disturb, or intentionally or recklessly disturb in a place of shelter or protection;
- intentionally or recklessly damage, destroy or obstruct access to a place used for shelter or protection.

*Great Crested Newts – Impact Risk*

- 4.3.2 The pond on site which will undergo minor direct impact during the creation of an access road over the site had been found to be absent of breeding great crested newts during surveys of the pond conducted in spring 2020 (Adonis Ecology, 2020). Therefore, it was considered the risk of any direct harm to a great crested newt breeding site from the proposed works would be negligible.
- 4.3.3 However, there were other ponds very close to the proposed development site, with a medium population recorded in the local area, and therefore it was considered highly likely that great crested newts would occur in terrestrial habitats on site. The piles of refuse and logs within the Nissan hut were considered to provide potential shelter habitat for great crested newts, and areas of trees, shrubs, scrub and ruderal habitat on the site were considered to provide further potential shelter habitat, as well as foraging and traversing potential. The grassland area was considered to provide no potential shelter habitat but could be used by traversing newts. Given the relatively small area of suitable habitats on site and the known medium local population of newts, it was considered likely that low to moderate numbers of great crested newts would most likely occur on the site. Given the significant areas of scrub/tree areas and grassland will be retained on the site, the risk of impact to the local population from the proposed development was considered to be very low.
- 4.3.4 However, given the high likelihood of great crested newts occurring on the site, it was considered that without mitigation, the proposed works would likely kill or harm great crested newts. This was also shown from the rapid risk assessment conducted for the site (Natural England, 2020) which based on the known presence of breeding great crested newts in the closest pond, and taking into account the size of the entire site, gave the result of '0.5 – Offence Likely'.
- 4.3.5 Given that population estimate surveys were conducted on the vast majority of the ponds within 250m of the site in 2020, it was considered that further surveys of local ponds at this time would provide no further information relevant to the planning application for the site. Although one pond within 250m of the site had not been surveyed, this pond was small and relatively distant to the other very nearby ponds. Further, as the population count from ten local ponds gave a peak count of 49 adults, it was considered highly unlikely that surveys of this additional pond would show a large local population (for which a peak count of over 100 would be required). However, recommendations provided in Section 5 of this report should be followed to ensure the works are undertaken lawfully, with minimal risk of impact to the local great crested newt population.

- 4.3.6 Please note, no clearance works or management of the site (different to any already undertaken regularly such as mowing of the grassland) should be undertaken without the recommendations of this report first being undertaken.

*Reptiles – Relevant Legislation*

- 4.3.7 Widespread reptile species, adder *Vipera berus*, common lizard *Zootoca vivipara*, grass snake *Natrix hevetica* and slow-worm *Anguis fragilis* are protected under the Wildlife and Countryside Act 1981 from intentional killing and injuring. They are also all Section 41 species.

*Reptiles – Impact Risk*

- 4.3.8 The ruderal and scrub habitats on site were considered to provide a small amount of low value sheltering, basking and foraging habitat for widespread reptile species, while the log and refuse piles within the Nissan hut could provide some further potential shelter and overwintering habitat. Surrounding garden habitats had some moderate potential for reptiles and as two species were recorded in the local data search (SBIS, 2021) it was considered possible that likely low numbers of reptiles may occur on the site. Given the extent of other low to moderate value habitat in the surroundings, it was considered that even if reptiles were present on the site, the number of individuals would be low and the risk of impact to any local population of reptiles from the proposed development was considered to be negligible. However, impact avoidance measures are outlined in Section 5 of this report to reduce any risk of impact to individual reptiles during site works to negligible.

#### **4.4 Nesting Birds**

*Summary of Relevant Legislation*

- 4.4.1 Wild birds are protected under the Wildlife and Countryside Act 1981 and, with certain exceptions (where certain species are causing a public health risk), it is an offence to intentionally:

- kill or injure any wild bird;
- take, damage or destroy the nest of any wild bird while it is in use or being built;
- take or destroy the egg of any wild bird.

*Impact Assessment*

- 4.4.2 The trees and larger shrubs on the site were considered to provide a small amount of potential nesting habitat for common bird species, as did the Nissan hut, and a low number of old nests were observed within the site. It was understood many of the trees and shrubs will be retained within the proposed development and therefore the risk of impact to any local bird population would be very low. It was further considered that the removal of the Nissan hut, as well as any felling of trees or removal of shrubs (as required), if undertaken during the bird nesting season (taken to be March to end September), would

pose a high risk of harm to likely low numbers of common nesting birds. Impact avoidance measures outlined in Section 5 of this report should be undertaken to reduce this risk of impact to negligible.

#### **4.5 Section 41 Species**

##### *Summary of Relevant Legislation*

- 4.5.1 Hedgehogs *Erinaceous europaeus* and common toads *Bufo bufo* are NERC Act 2006 Section 41 species as are a number of bird species. The local conservation of any Section 41 species is a material consideration for any planning application.

##### *Impact Assessment – Hedgehogs and Common Toads*

- 4.5.2 The ruderal, scrub, shrub and treed habitats on site were considered to provide a small amount of suitable habitat for foraging and sheltering hedgehogs and common toads. Log and refuse piles within the Nissan hut may also provide some potential shelter habitat for these species, and the grassland area would provide further potential foraging habitat for hedgehogs. Given that some of the tree and shrub areas will be retained, and as the surrounding habitats provided similar suitable habitat, it was considered the loss of the habitats on site would pose a negligible risk of impact to any local populations of these species. However, impact avoidance measures outlined in Section 5 of this report should be undertaken to reduce any risk of harm to individuals of these species which may occur on site.

##### *Impact Assessment – Section 41 Nesting Birds*

- 4.5.3 The tree and shrub habitats on site, as well as potentially the Nissan hut were considered to provide a very small amount of potential nesting habitat for Section 41 bird species on the site. Given the small amount of habitat on site, that some of the shrubs and trees will be retained, and given the extent of other suitable habitat in the surroundings, it was considered the risk of impact to any local population of Section 41 bird species would be negligible. Further, the impact avoidance measures outlined for common nesting birds would reduce any risk of impact to individual Section 41 nesting birds which may occur on the site to negligible.

#### **4.6 Designated Sites**

##### *Statutory Designated Sites*

- 4.6.1 Given the significant distance of any statutory wildlife sites to the proposed development site (over 3.45km from the site), the small scale of the proposed development (single residential dwelling), and as there was no requirement for the Local Planning Authority (LPA) to consult Natural England on the type of development proposed for this site, the risk of impact to the interest features of any statutory wildlife sites from the proposed development was considered to be negligible.

*Non-Statutory Designated Sites*

- 4.6.2 As there were no non-statutory wildlife sites within 2km of the proposed development site, it was considered highly unlikely that the proposed development works would impact on the interest features of any non-statutory wildlife sites.

## **5 RECOMMENDATIONS**

### **5.1 Further Surveys**

*Great Crested Newts*

- 5.1.1 Although one pond within 250m of the site had not been surveyed in spring 2020, as this pond was relatively distant from all other local ponds (190m to closest other pond) and was 180m from the works area of the proposed development site, and as the surveys of the ten local ponds gave a peak count of 49, it was considered likely that if this pond had been included, it would be highly unlikely that a large population would have been recorded. Therefore, it was considered that the information available on the local ponds at present, was sufficient to determine the likely impact to great crested newts from the proposed works, and further/repeat presence/absence and population estimate surveys were not considered to be required at this time as they would provide no additional material information relevant to the planning application.
- 5.1.2 However, as it was considered that the proposed works will impact at least low numbers of great crested newts, a Natural England European Protected Species Licence (EPSL) would need to be obtained for the site, or the site will need to register with the Natural England District Level Licence (DLL) to allow the works on site to proceed lawfully.
- 5.1.3 If it is decided to obtain a Natural England EPSL for the site, a presence/absence and population estimate survey of all ponds/waterbodies within 250m of the site would be required to accompany the licence application. The survey data should be no more than two survey seasons old (a survey season being from mid-March to mid-June) at the time works are to be undertaken on the site. It was further considered that there was significant scope within the site boundary (likely at the southern end of the site) to provide sufficient habitat to mitigate the loss of small areas of suitable shrub/scrub/treed habitat and refuse piles on the site.
- 5.1.4 If it is decided to register the site under the Suffolk DLL, no further surveys or mitigation works would be required on the site. Further information on the DLL scheme can be found at <https://www.gov.uk/government/publications/great-crested-newts-district-level-licensing-schemes>.
- 5.1.5 Please note, no site clearance works should be undertaken until either an EPSL has been obtained for the site or the site is confirmed as registered under the DLL. If any minor works are required on site prior to this time, an ecologist must be consulted to confirm whether the works can proceed without



risk of impact to great crested newts either with or without ecological supervision.

#### *Other Species*

- 5.1.6 It was considered that no further surveys for any other protected or Section 41 species were necessary, as with the impact avoidance measures undertaken as outlined in this report, the risk of impact to any protected and/or Section 41 species was considered to be negligible.

#### *Validity of PEA*

- 5.1.7 If site works do not commence for more than 18 months from the date of the survey undertaken for this report, the ecology of the site should be re-assessed as the ecological situation may have changed in the intervening time.

## **5.2 Impact Avoidance Measures**

- 5.2.1 It is recommended that, if the Local Planning Authority are minded to grant planning consent, the impact avoidance measures described below be conditioned.

#### *Foraging and Commuting Bats*

- 5.2.2 In order to reduce the risk of indirect disturbance to bats that are likely to be foraging and/or commuting on site, both during and post-development, sensitive lighting of the site should be used and the guidelines below should be followed:

- minimise lighting on site so far as possible;
- use hoods or directional lighting to avoid light directed at the adjacent pond, hedgerows, trees or the sky;
- have external lighting on as short a timer as possible so that lights are turned off when not in use.

- 5.2.3 Further, it is recommended that where possible, warm spectrum LED lights (ideally less than 2700K) are used, as LED bulbs produce the least amount of UV light possible. Lighting should also feature peak wavelengths higher than 550nm to avoid the light components that are most disturbing to bats. The brightness of the lamps should also be kept as low as feasibly possible, with significant impacts shown on bats at 3.6 lux, with bats shown to peak in foraging levels at 0.45 lux. Lighting should also be kept at as low a height level as possible, using low level bollards or down lights where possible. Lighting which emit an ultraviolet component or that have a blue spectral content have high attraction effects on insects and should be avoided (ILP, 2018).

- 5.2.4 It is also recommended that the development works should not take place between sunset and sunrise between April and September (the main season of bat activity), and any security or spot lighting required should be kept to a



minimum, and where possible be placed on a short timer to reduce the extent of lighting on site during development.

*Widespread Reptiles, Nesting Birds, Hedgehogs and Common Toads*

5.2.5 If it is decided to obtain an EPSL for the site for great crested newts, the following impact avoidance measures should be undertaken in association with any requirements of the EPSL. Otherwise, these works should only be undertaken once it is confirmed that the site is registered under the local DLL scheme:

- scrub and shrub habitats should be cut to a height of approximately 10cm above ground level between October and the end of February to avoid impact to potentially nesting birds;
- the scrub/shrub areas should then be cleared to ground level, along with the clearance of the ruderal habitats. These works should be undertaken between March and mid-October when most animals are active, avoiding June or July if possible as this would be when hedgehogs would be most likely to have young. The works should be undertaken in weather considered to be suitable for reptiles to be active (above 10°C, dry and with little wind);
- the ruderal habitat should first be strimmed to a height of approximately 10-15cm in height. The ruderal areas, and the previously cleared scrub/shrub areas should then be cut to ground level. All stages of clearance should be undertaken carefully, using strimmers, and any cut vegetation should be raked up after each cut and should be cleared from the site immediately to avoid creating potentially higher value habitat for these species on the site. If any reptiles or other animals are found during the works, the ecologist should capture the animal(s) and place them in a sheltered part of the site which will not be impacted by the remaining works on site.
- given the potential for great crested newts to be encountered, a suitably licensed ecologist should be present during all works at ground level.

5.2.6 If it is not possible to undertake the first cut of scrub/shrub areas between October and end February, the vegetation should be checked by an ecologist for active bird nests no more than seven days before works begin. Any trees to be felled and the demolition of the Nissan hut should also be undertaken between October and the end of February, otherwise an ecologist should also check these features for occupied nests. If any occupied nest is found, works that could disturb the nesting birds should be postponed until an ecologist confirms the nest is no longer in use. To mitigate the minor loss of nesting potential on the site, three bird nest boxes should be provided on site. This should consist of:

- 1 x Schwegler 1SP Sparrow Terrace or CedarPlus Triple Sparrow House – for the red-listed BoCC and Section 41 species house sparrow *Passer domesticus*, best located under eaves;

- 1 x Eco Small Bird Box (25mm) from the Nestbox Company suitable for blue tits *Cyanistes caeruleus*.
- 1 x Eco Small Bird Box (32mm) from the Nestbox Company suitable for great tits *Parus major* and coal tits *Periparus ater*.

### 5.3 General Precautions

5.3.1 To prevent risk of harm to badgers, reptiles, hedgehogs, common toads or any other small animals that may be present on site, the following general precautions should be undertaken:

- any trenches or holes which will be left overnight should either be fully covered, or have a wooden plank placed in them in such a way that any wildlife that falls in can climb out safely. Alternatively, one end of the trench should be sloped or stepped to allow animals to climb out;
- materials brought to the site for the construction works should be kept off the ground on pallets, so as to prevent small animals seeking refuge within them and coming into harm's way;
- rubbish and waste should be removed off site immediately or placed in a skip, to prevent small animals using the waste as a refuge, and thus coming into harm's way.

### 5.4 Enhancement Suggestions

5.4.1 It was considered that there was scope within the proposals to provide biodiversity enhancements. The following are actions that could be undertaken to enhance aspects of the biodiversity of the site, which are not considered to be necessary for mitigation or compensation of impacts, and are in addition to measures proposed or that may be required for great crested newts, for avoidance, mitigation or compensation of impacts as outlined above. With all of the measures undertaken as described below, it was considered a biodiversity net gain would likely be achieved.

#### *Flower-rich Amenity Grassland Planting*

5.4.2 Lawn areas on site could be enhanced to the benefit of local wildlife by creating species-rich lawns. This would either be achieved by seeding with a flowering lawn mix (such as the WFG20-Species Rich Lawn mix by Germinal), or by using species-rich turf on the site (such as the Species Rich Lawn Turf by Wildflower Turf).

#### *Native Tree and Shrub Planting*

5.4.3 Increasing the proportion of the site given over to native vegetation such as shrubs and/or trees would likely benefit wildlife. As practical, native trees, shrubs and hedgerows could be planted in appropriate areas on site; combined with the existing trees and shrubs, these would increase the structural diversity of the site and attract a greater number and diversity of animal species. It was considered appropriate planting would consist of a

native hedgerow with tree standards along the entire length of the western boundary. A list of native tree species which could be used can be found in Table 6 in Appendix 3. The planting of other nectar rich and fruiting species (such as damsons and plums) would also benefit native invertebrates. If possible, trees and shrubs of local provenance should be sourced, as these have a better chance of thriving. For bio-security purposes, only UK-grown species should be planted. A list of native plant suppliers can be found on the Flora Locale website at: <http://www.floralocale.org>.

#### *Bird Boxes*

5.4.4 The addition of further bird boxes in appropriate areas on the new building or retained trees on site would benefit nesting birds. The boxes should be installed above 2m, out of the reach of predatory cats, and should not be in direct sunlight, to avoid nestlings overheating and dying. There are a wide variety of bird boxes available. Alternatively, boxes are available which can be incorporated into walls and/or soffits to reduce accidental damage and visual impact. The following nest boxes were considered to be appropriate for the site, or alternative boxes should be approved by an ecologist:

- 1 x Schwegler 1SP Sparrow Terrace or CedarPlus Triple Sparrow House – for the red-listed BoCC and Section 41 species house sparrow *Passer domesticus*, best located under eaves;
- 2 x Eco Small Bird Box (25mm) from the Nestbox Company suitable for blue tits *Cyanistes caeruleus*;
- 2 x Eco Small Bird Box (32mm) from the Nestbox Company suitable for great tits *Parus major* and coal tits *Periparus ater*.

#### *Bat Boxes*

5.4.5 The addition of at least three bat boxes on external walls of the new building on site would greatly increase the roosting potential for these European protected species.

5.4.6 The Schwegler 1FE Bat Box (fitted with optional back plate) or 2FE Bat Box are recommended for external roosts, or others as approved by an ecologist. These are all suitable for most common bat species, require no maintenance and there are no diseases known to be associated with bat droppings. Each bat box should be positioned at a height of more than 4m above ground level, away from external lighting, and where there is a clear path of flight to the boxes. The three bat boxes should each face a different aspect, preferably with one facing north, one facing southeast and the other facing southwest. This allows the bats to choose the box which provides the most suitable conditions each day.

#### *Bee Boxes/Insect Nesting Aid*

5.4.7 One Schwegler Clay and Reed Insect Nest could be provided to benefit native bees, or others as approved by an ecologist. The nest box should be installed firmly (not allowed to swing) in sheltered and sunny positions on trees,

buildings or fences (above 2m) on site, preferably near to vegetated areas. These nests are designed to attract only harmless insects, including solitary bees which are harmless to humans and pets and are useful pollinators.

## **6 CONCLUSION**

- 6.1 Overall, the site was considered to be of moderate value for wildlife at a local level, with some potential for low numbers of great crested newts as well as low numbers of other protected and/or Section 41 species. With the impact avoidance measures of this report completed either in conjunction with mitigation for great crested newts (to be confirmed in an EPSL to be obtained for the site), or with the site registered under the Suffolk DLL, it was considered the proposed development could proceed with minimal risk of impact to protected or Section 41 species, Section 41 habitats or the local biodiversity. Further, there was considered to be some scope to enhance the site to the benefit of local wildlife.

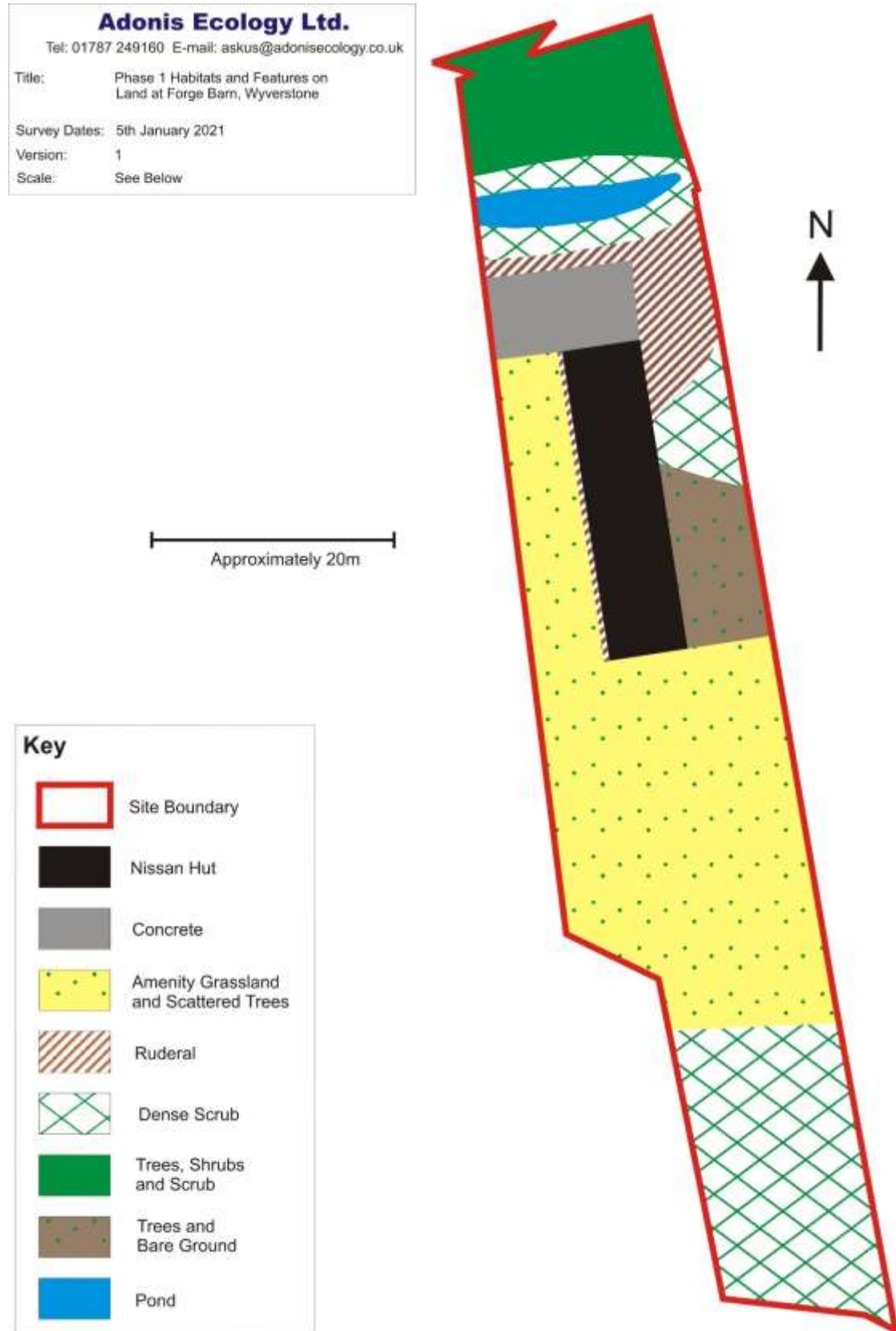
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## 8 APPENDICES

### 8.1 Appendix 1: Figure

Figure 1: Phase 1 Habitats and Features on Land at Forge Barn, Wyverstone. 5<sup>th</sup> January 2021





## 8.2 Appendix 2: Photographs

All photographs taken by Stewart Wesley (surveyor) on 5<sup>th</sup> January 2021

**Photograph 1: Nissan Hut on Land at Forge Barn, Wyverstone.**



**Photograph 2: Inside of Nissan Hut on Land at Forge Barn, Wyverstone.**





Photograph 3: Trees and Scrub to East of Nissan Hut on Land at Forge Barn, Wyverstone.



Photograph 4: Ruderal and Scrub to North of Nissan Hut on Land at Forge Barn, Wyverstone.





**Photograph 5: Pond and Scrub on Banks on Land at Forge Barn, Wyverstone.**



**Photograph 6: Ruderal, Scrub and Trees at Northern Edge of Land at Forge Barn, Wyverstone.**





**Photograph 7: Amenity Grassland and Young Trees to West of Nissan Hut on Land at Forge Barn, Wyverstone.**



**Photograph 8: Amenity Grassland and Small Trees at Southern End of Land at Forge Barn, Wyverstone.**



## 8.3 Appendix 3: Tables

Table 5: Site Evaluation Score for Land at Forge Barn, Wyverstone. 5<sup>th</sup> January 2021

Criteria	Rating/ Value	Example Levels	Score	Site Score
Size/Extent	Very High	>50 hectares	5	
	High	>10 but <50 hectares	4	
	Medium	>3 but <10 hectares	3	
	Low	>1 but <3 hectares	2	
	Very Low	<1 hectare	1	X
Diversity – Species	Very High	150 or more native plant species found/expected on site.	15	
	High	Between 100 – 149 native plant species found/expected on site.	10	
	Medium	Between 60 – 99 native plant species found/expected on site.	6	
	Low	Between 30 – 59 native plant species found/expected on site.	3	X
	Very Low	Less than 30 native plant species found/expected on site.	1	
Diversity – Habitats	Very High	More than 10 habitat types present on site with a mix of terrestrial and aquatic habitats present.	15	
	High	Between 5 – 10 different habitat types on site with a mix of terrestrial and aquatic habitat types.	10	
	Medium	>3 terrestrial habitats on site but either none or very limited aquatic habitat present.	6	X
	Low	>2 habitat types present on site but with a predominance of one terrestrial habitat type covering over 60% of the total area and no aquatic habitats.	3	
	Very Low	Only 1 or 2 habitat types present on site with a predominance of one terrestrial habitat type which covers over 90% of the total area.	1	
Naturalness	Very High	Predominant habitats unmanaged, slow developing and difficult to recreate, such as ancient woodland, species rich hedgerows. If known, land that has been unmanaged for more than 25 years.	10	
	High	Habitats largely unmanaged or traditionally managed in line with historic management of the site, if known, this may include derelict land that has been unmanaged for between 10 and 25 years.	8	
	Medium	Over 40% of the site consisting of natural features as opposed to hardstanding/buildings. Some degree of management may occur on a rotational or at a significantly low level. If known, land that has been derelict and unmanaged for no more than 10 years.	5	X
	Low	Limited area of natural habitats on site and/or these are predominantly well managed/maintained e.g. garden beds, intensively grazed pasture. If known, this may include derelict land that has been unmanaged for no more than 3 years.	3	
	Very Low	Few natural habitats found on site (hardstanding, intensive one crop agricultural land, short cut amenity grassland. If land is derelict/unmanaged, this must have been for no more than one year.	1	
Rare or Exceptional Features	Very High	Species or habitat present in quantity that is considered very rare and important at national and local levels.	20	
	High	Species or habitat present in quantity that is considered rare and of high importance at a local level, e.g. large population of a Section 41 species.	16	
	Medium	Species or habitat present that is considered moderately important at a local level.	10	X
	Low	Species or habitats present in quantity not considered to be particularly rare or important at a local level.	4	
	Very Low	Species or habitats present considered to be widespread and common at both a local and national level or very common at a local level	1	



Criteria	Rating/ Value	Example Levels	Score	Site Score
Fragility	Very High	Habitat unable to be recreated within a reasonable timescale (<50 years) if lost such as ancient woodland/trees, unimproved grassland etc.	10	
	High	Habitat difficult to recreate to the same standard within a reasonable timescale (<50 years) such as species-rich hedgerows	8	
	Medium	Habitats likely to be recreated to the same or close degree of similarity within 25 years such as semi-improved grasslands	5	X
	Low	Habitats relatively easy to recreate within 2-10 years such as improved grassland, non species-rich hedgerows	3	
	Very Low	Habitats easy to recreate and likely to establish within 1-2 years such as amenity grassland.	1	
Typicalness	Very High	Habitats on site rare at a national and/or regional level and/or considered to be very rare within the local context.	5	
	High	Habitats largely different to those nearby but with some similar areas known within the region.	4	
	Medium	Some habitats on site both similar and differing from those within a local context.	3	X
	Low	Habitats on site largely the same as surrounding and regional habitats but some minor areas of different or significant habitat at a local level.	2	
	Very Low	Habitats on site largely the same as surrounding and regional habitats.	1	
Connectivity	Very High	More than 10 hedgerows, waterways and/or tree lines linking site to other potential habitat. Linking habitat generally of high quality (hedgerows with no gaps, woodland, mature gardens) and linking to many and/or large areas of similar and/or diverse habitats.	15	
	High	6 – 9 hedgerows, tree lines or waterways linking site to other potential habitat. Connective habitat medium-high quality linking to areas of similar and/or diverse habitats.	10	
	Medium	Between 3 – 5 hedgerows, treelines and/or waterways connecting site to other potential habitat. Site usually linked to small areas of high quality habitat or large areas of poorer quality habitat.	6	X
	Low	1 – 2 linking features such as hedgerows, waterways and/or tree lines to other potential habitat. Linking habitat generally of poor quality and linking to only small areas of similar habitat.	3	
	Very Low	Site surrounded by hardstanding, roads and/or other significant barriers to wildlife dispersal. No hedgerows, waterways or tree lines to link site to potential habitat.	1	
Value for Appreciation of Nature	Very High	Public Rights of Access on site and habitats providing screening of industrial/commercial areas from residential.	5	
	High	Public Rights of Access to the site and a reasonable number of local residents that may appreciate the visual appearance of the site.	4	
	Medium	Site occasionally used by local public and provides some positive visual impact for local residents.	3	
	Low	No public rights of access to the site although site provides some positive visual impact for low numbers of local residents	2	X
	Very Low	No public rights of access to the site, site not visible from any residential or commercial properties and/or site not considered to provide positive visual impact.	1	
<b>Site Score and Rating</b>	<b>41 – Moderate</b>			

Site Value Scores: 9-19 = Very Low; 20-39 = Low; 40-59 = Moderate; 60-79 = High; 80-100 = Very High

Table 6: Selected Native Trees and Shrubs

Common Name	Scientific Name
<b>Trees</b>	
Common Alder	<i>Alnus glutinosa</i>
Silver Birch	<i>Betula pendula</i>
Hornbeam	<i>Carpinus betulus</i>
Ash	<i>Fraxinus excelsior</i>
Wild Apple	<i>Malus sylvestris</i>
Wild Black Poplar	<i>Populus nigra</i>
Aspen	<i>Populus tremula</i>
Wild Cherry	<i>Prunus avium</i>
Oak	<i>Quercus robur</i>
White Willow	<i>Salix alba</i>
Wild Service Tree	<i>Sorbus torminalis</i>
Small-leaved Lime	<i>Tilia cordata</i>
Field Maple	<i>Acer campestre</i>
<b>Shrubs</b>	
Dogwood	<i>Cornus sanguinea</i>
Hazel	<i>Corylus avellana</i>
Midland Hawthorn	<i>Crataegus laevigata</i>
Hawthorn	<i>Crataegus monogyna</i>
Spindle	<i>Euonymus europaeus</i>
Holly	<i>Ilex aquifolium</i>
Privet	<i>Ligustrum vulgare</i>
Purging Buckthorn	<i>Rhamnus cathartica</i>
Goat Willow	<i>Salix caprea</i>
Elder	<i>Sambucus nigra</i>
Guelder Rose	<i>Viburnum opulus</i>