

Preliminary Ecological Appraisal

of

9 Manor Road, Elmsett,

Suffolk, IP7 6PN.

Carried out for:

Simon Goodchild

1st

Prepared by:

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1. Background to Commission

- 1.1 Abrehart Ecology Ltd was commissioned by Simon Goodchild to carry out a Preliminary Ecological Appraisal (PEA) of the land for the proposed development, at 9 Manor Road, Elmsett, Suffolk (central grid reference TM 0447 3776; Fig. 1; hereafter referred to as the Site).
- 1.2 The survey was required to inform a planning application at the Site; to include the construction of a small residential development. The approximate size of the site was 0.5 ha.

Aims of Study

- 1.3 This report provides an ecological appraisal of the Site following the completion of a desk study and site visit. The aim of this study was to:
- Provide a description of existing habitat types;
 - To determine the existence and location of any ecologically valuable areas;
 - To identify the potential (or actual) presence of protected and/or notable species;
 - To provide the legislative and/or policy protection afforded to any habitats present or any species assessed as likely to be associated with the site; and
 - To recommend any further ecological surveys considered necessary to inform mitigation requirements for the planning application within the Site.
 - To provide an assessment of potential impacts to protected species, habitats, or protected sites.

Site Description

- 1.4 The survey area was located to the north of Manor Road, Elmsett, Suffolk. The proposed construction zone is approximately 0.5 hectares and consisted of an existing single-story dwelling (this was disused at the time of survey) and eight other outbuildings within the site boundary. These were predominantly used for storage and varied in construction materials. There was a hardstanding access track from Manor Road, south of the site, leading to the storage buildings. Surrounding the bungalow was an area of semi-improved grassland, this was adjacent to a sheep grazed paddock in the northern portion of the site. The site was surrounded by mature hedgerows, wet ditches and standard trees.
- 1.5 Adjacent to the site were managed garden areas, residential dwellings and arable fields. The wider landscape was dominated by arable land, connecting hedgerows and woodland patches. The village of Elmsett is approximately 1.6km south-east of the Site (see Figure 1).

MAGiC

Site Location

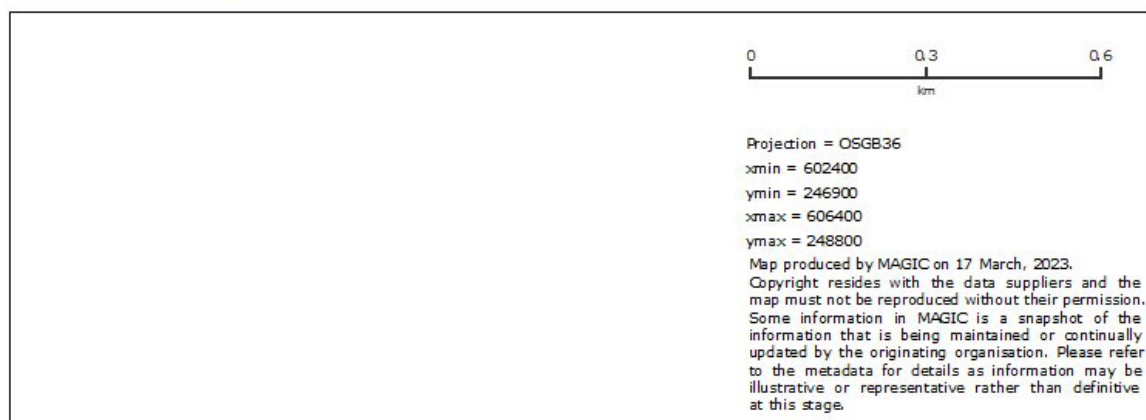
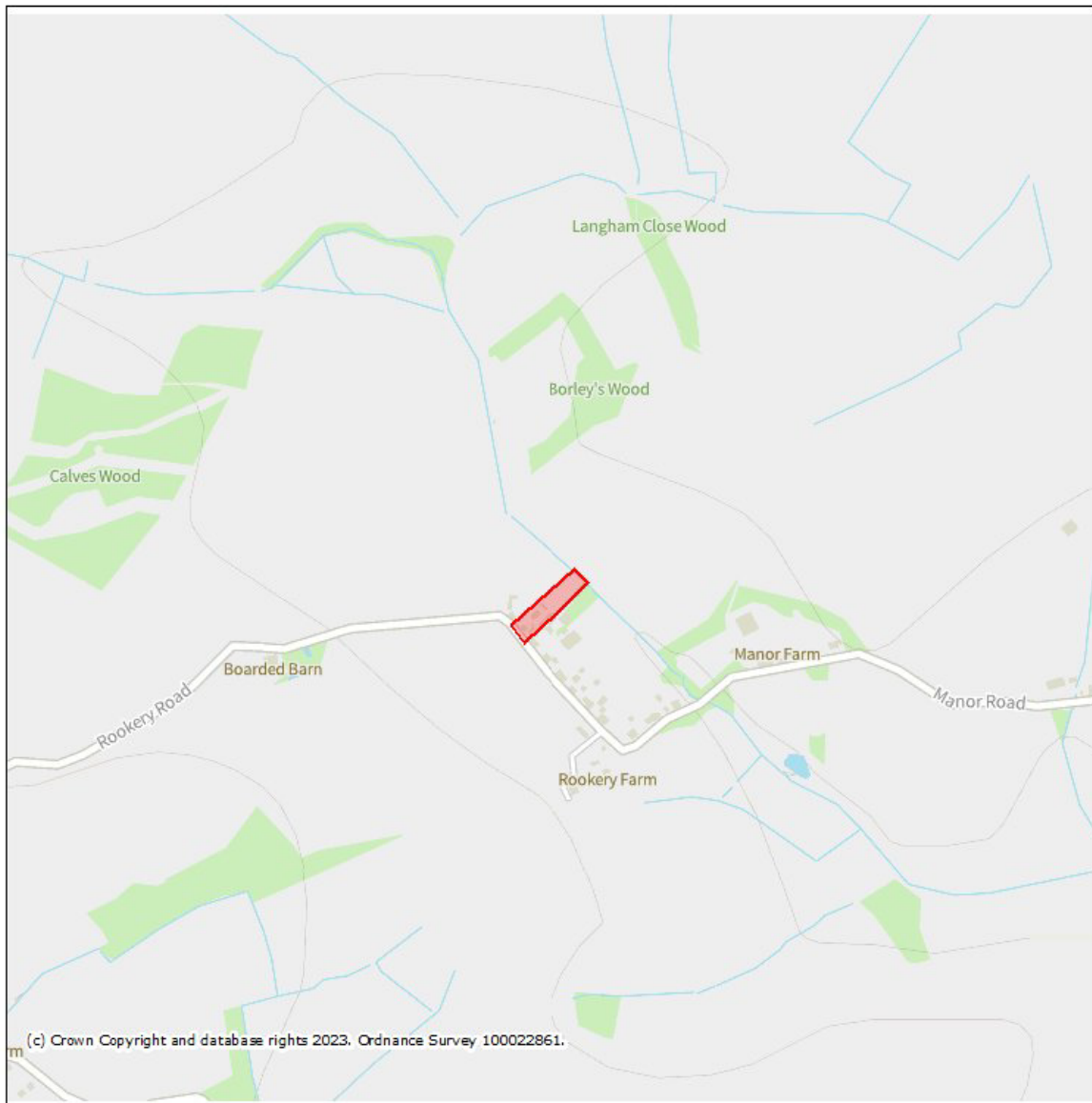


Figure 1. Site location

Relevant Legislation

- 1.6 Protected species, as referred to within this report, are taken to be those protected under European Legislation (Conservation of Habitats and Species Regulations 2010, as amended) and UK legislation (Wildlife and Countryside Act 1981; Protection of Badgers Act 1992).
- 1.7 Public bodies have a duty of responsibility to consider species of principle importance in England as listed in Section 41 of the NERC Act (2006).
- 1.8 The National Planning Policy Framework (NPPF) 2021 places responsibility on Local Planning Authorities (LPAs) to aim to conserve and enhance biodiversity in and around developments. Section 40 of the NERC Act requires every public body to “have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”. Biodiversity, as covered by the Section 40 duty, is not confined to habitats and species of principal importance but refers to all species and habitats. However, the expectation is that public bodies would refer to the Section 41 list (of species and habitats) through compliance with the Section 40 duty.
- 1.9 “The Local Plan seeks to protect, retain, and enhance the high-quality natural environment and designated landscapes and sites found across the Local Plan area which contribute to the overall success of the area and provides economic and social benefits for all...The Local Plan will seek to foster in new developments and to protect, retain, and enhance in existing developments.”
- 1.10 “Development proposals should be accompanied by sufficient information to assess the effects of development on priority habitats and species, protected sites, protected species, biodiversity or geology, together with any proposed prevention, mitigation, or compensation measures...”
- 1.11 Appendix IV details legislation which protects species and groups relevant to the Site (bats, reptiles, birds, and badgers).

2. Methods

Desk Study

- 2.1 Data obtained from the Suffolk Biodiversity Information Service (SBIS) were used to conduct a standard data search¹ for any information regarding statutory and non-statutory sites and records of protected and priority species within a 2km radius of the Site. The data were received on the 20th of March 2023.
- 2.2 A 7km radius search for conservation areas part of the National Site Network, including Special Protection Areas (SPAs), Special Areas of Conservation (SACs) and Ramsars was undertaken using MAGIC (<http://www.natureonthemap.naturalengland.org.uk/>).

Field Survey

- 2.3 A Preliminary Ecological Appraisal was carried out by Thomas Jordan BSc (Hons) (Natural England Great Crested Newt Class Survey Licence WML-CL08,) on the 28th of March 2023 in accordance with standard best practice methodology for Phase 1 Habitat Surveys set out by the JNCC (JNCC 2010). Weather conditions during the survey were 100% cloud cover, a gentle/moderate breeze (Beaufort Scale 3-4), and rain, with a temperature of 7°C, and good visibility. The Site was traversed slowly by the surveyors, mapping habitats, and making notes on dominant flora and fauna. The survey was extended to identify the presence of invasive species and included an assessment of the potential for the habitats in and around the Site to support protected species.

Survey Limitations

- 2.4 There were no limitations to the survey.

¹ *The standard data search identifies designated sites including:- Ramsar; Special Areas of Conservation; Special Protection Areas; Sites of Special Scientific Interest; National Nature Reserves; Local Nature Reserves; County Wildlife Sites; Regionally Important Geological Sites; Ancient Woodland; and protected and priority species identified by the:- Wildlife & Countryside Act 1981 Schedules 1, 5 & 8; Conservation of Habitats & Species Regulations 2010 Schedules 2 & 5; Protection of Badgers Act 1992; Bonn Convention Appendix 1 & 2; Bern Convention Annex 1 & 2; Birds Directive Annex 1; Habitats Directive Annex 2, 4 & 5; NERC Act 2006 Section 41; UKBAP (both local and national); IUCN Red List species; Red & Amber Bird List; Nationally Scarce / Rare; Locally Scarce / Rare; and Veteran trees.*

3. Results

3.1 The following section details the results of the desk study and field survey. Consideration has been given to species likely to be found in the habitats recorded on site and potential impacts to designated sites within the local area.

Data Search (for maps see Appendix III)

3.2 The following section details the results of the desk study and field survey. Consideration has been given to species likely to be found in the habitats recorded on site and potential impacts to designated sites within the local area. Several protected species have been 'scoped out' of the report, as the Site was not considered suitable to support them. Species scoped out were dormice, water voles, and otters.

Data Search

3.3 There were no statutory designated sites within 2 km of the Site.

3.4 There are six County Wildlife Sites within 2km of the Site. These are:

- Borley's wood – A small unusually shaped ancient woodland situated in the parish of Elmsett, in close proximity to Elmsett Park Wood which has been scheduled as a Site of Special Scientific Interest. A woodbank separates Borley's Wood from arable fields along the north western boundary. The remainder of the wood adjoins farmland. The majority of the wood consists of ash, field maple and hazel coppice with mature standards of oak. More uncommon woody species, for example spindle, holly and small-leaved lime are also present scattered throughout the wood. The shrub layer is colonised by dense hawthorn, elm and blackthorn scrub which provides good habitat for nesting birds. Patches of diseased elm have been cleared leaving open glades. These areas have been colonised by a range of common woodland plants, for example, ivy, bramble and dog's mercury. In addition, spurge laurel and wood millet, two scarce plants and indicators of ancient woodland, are also present. A pond situated on the edge of the southern part of the wood, although rather overgrown provides additional habitat diversity.
- Bushley's Ley farm (arable fields) – A 40 acre organic farm situated to the north-east of the village of Elmsett. The site has good structural diversity, with arable, grassland, hedgerows, an orchard and a stream running west-east through the centre of the farm. The arable fields, which have been under organic production for many years, support a diverse flora, including a number of uncommon Suffolk species such as round-leaved and sharp-leaved fluellens, night-flowering catchfly, nationally scarce Shepherd's-needle and a large population of corn buttercup; it is estimated that the population of this rare plant, which grows well in the fields of winter-sown oats, represents 90% of the national population.
- Calves wood – Situated in the parish of Whatfield is listed in English Nature's Inventory of Ancient Woodland. A large proportion of the wood has been felled and the land converted to arable farming. The ditch and bank which forms the western boundary of the wood is considered to be a fragment of a medieval bank which at one time enclosed the whole wood. The tree canopy is composed of ash and field maple coppice with scattered oak standards, beneath which is a layer of hazel coppice and dense hawthorn scrub. A small area of diseased elm is present in the north west corner of the wood. The ground flora is variable. Parts of the wood are covered with dog's mercury and primrose, the remainder with bluebell, bramble and bracken. Yellow archangel, an uncommon ancient woodland indicator is also present in small numbers. Tangles of honeysuckle and clematis

are abundant amongst the woody vegetation. Numerous pheasant pens can be seen and the wood is used extensively for the rearing of game birds.

- Corn hatches grove – One of a number of ancient woodlands situated in the parish of Aldham and is listed in English Nature's Inventory of Ancient Woodland. It lies adjacent to a road which also serves as a public footpath. A deep ditch containing water encloses the wood on the remaining three sides. Despite its small size, Corn Hatches Grove supports a range of woody species. In addition to areas of hornbeam coppice, the wood also contains cherry, ash and elm, some of which is diseased. A wild service-tree, a rare species in Suffolk, grows close to the eastern boundary of the wood. Large sections of the woodland floor are devoid of vegetation due to the heavy shade cast by the tree canopy. However, in areas where more light reaches the lower layers, a good range of plants can be found. Indeed, a total of fifty-three woodland plants has been recorded. In addition to common woodland plants, a number of scarce ancient woodland indicators have also been recorded, for example spurge laurel. Great spotted woodpecker, long-tailed tit and woodcock are amongst the many birds which are known to breed in the wood.
- Langham close wood – This small linear-shaped area of woodland is a remnant of a much larger ancient wood which has been grubbed for conversion to arable farming. Langham Close Wood has a fairly uniform structure throughout. It consists of oak and ash standards with a coppice layer of ash, field maple and hazel. Other woody species include elder, hawthorn, spindle and silver birch. In addition there is a dense clump of blackthorn scrub in the centre of the wood which provides valuable habitat for nesting birds. Bramble and dog's mercury dominate the field layer, with small quantities of a few ancient woodland indicator plants, for example hairy St John's-wort. Langham Close Wood is used for pheasant rearing and shooting.
- Laurel cottage grassland – Situated to the south of The Street, Elmsett. It consists of species-rich unimproved neutral grassland surrounded by tall, thick, species-rich native hedgerows. The meadow is connected to three more small meadows to the south-east and the hedgerows form part of a wider hedgerow network connecting to Elmsett Park Wood ancient woodland to the south. The meadow retains a good range of plants, some of which are indicators of traditionally managed hay meadows, including adder's tongue. The surrounding species-rich hedge includes a small-leaved lime in the south-western corner and a species mix which is similar to that of the other native hedgerows and woodland in the area; it provides excellent roosting and nesting opportunities for a range of bird species.

3.5 There are no National Site Network conservation areas (Ramsar, SAC, or SPA) within 7km of the Site.

3.6 The data search showed records of protected species in the area, which could potentially occur on the Site. These are detailed within the relevant sections below.

Field Survey Results

3.7 The Site comprised of land and outbuildings associated with the former dwelling at 9 Manor Road, Elmsett. The Site consisted of a previous residential dwelling and eight other outbuildings within the site boundary, all buildings are to be impacted as part of the development. Buildings are detailed within section 4.10.

Areas within the Construction Boundary

- 3.8 **Grassland:** There was an area of semi-improved grassland in the south-western portion of the site surrounding the main bungalow. This grassland appeared mown on a semi regular basis with average sward height of approximately 15cm. Amongst the grass there was moderate forb diversity with species such as clover (*Trifolium sp.*), cranesbill (*Geranium sp.*), dandelion (*Taraxacum agg.*), bristly oxtongue (*Helminthotheca echioides*), yarrow (*Achillea millefolium*), ribwort plantain (*Plantago lanceolata*), creeping buttercup (*Ranunculus repens*), creeping cinquefoil (*Potentilla reptans*), daisy (*Bellis perennis*) and red dead-nettle (*Lamium purpureum*). Growing within this grassland were several mature apple trees (*Malus sp.*).
- 3.9 In the north-east section of the site was a sheep grazed paddock consisting of improved grassland, this had a consistent sward height of approximately 5cm. This area of grassland had poor forb diversity, some species of ruderal vegetation such as spear thistle (*Cirsium vulgare*), bramble (*Rubus fruticosus agg.*) and nettle (*Urtica dioica*) were growing throughout.
- 3.10 **Hardstanding:** There was a hardstanding access track, entering the site in the southern corner, this hardstanding continued along the south-east boundary to the improved grassland. This hardstanding had some vegetation regrowth consisting largely of typical colonizer species such as bristly oxtongue (*Helminthotheca echioides*), hairy bittercress (*Cardamine hirsuta*), nettles, bramble and various mosses.
- 3.11 **Hedgerows:** There were mature hedgerows on all boundaries. The north-western boundary consisted of closed board fence and heavily managed leylandii (*Cupressus × leylandii*) hedge, this was approximately 2m tall and had a poor understory.
- 3.12 The hedgerow along the north-eastern boundary was growing over a ditch which had running water at the time of survey, the hedgerow predominantly consisted of hawthorn (*Crataegus monogyna*) and blackthorn (*Prunus spinosa*) with occasional standard elm (*Ulmus sp.*) and field maple (*Acer campestre*). The height of this hedgerow did not appear regularly managed resulting in a varying height of between approximately 3-4.5m. This hedgerow had a dense understory with bramble and ivy (*Hedera helix*) growing throughout.
- 3.13 The south-eastern hedgerow consisted of hawthorn and blackthorn and was also growing over a ditch with running water at the time of survey. This hedgerow was managed with varying height of between 1.5-2.5m. There were several mature standard trees within the hedgerow close to the buildings, these consisted of field maple and ash (*Fraxinus excelsior*).
- 3.14 The south-western hedgerow was heavily managed with a consistent height of approximately 2m, this hedgerow consisted of hawthorn and dogwood (*Cornus sanguinea*) with limited understory. This hedgerow was growing adjacent Manor Road.
- 3.15 A map showing the habitat types on Site can be seen in Appendix II.

4. Protected and Priority Species Within the Site & Potential Impacts and Recommendations

Statutory Designated Areas

- 4.1 The Site does fall within the Impact Risk Zone for Middle wood Offton SSSI and Elmsett park SSSI however, the site does not contain the species or habitats for which the protected areas are designated and will not significantly increase footfall or disturbance through the conservation areas.
- 4.2 Given the small size of the development and screening provided by surrounding residential dwellings, tree belts, and agricultural land, it was not considered necessary to carry out a Habitats Regulation Assessment for the development. As with the SSSI sites, the proposed construction area does not contain the habitat for which other conservation areas are designated or the potential to support features of interest. The areas contain extensive footpath networks, and the proposed construction will not significantly increase visitor footfall along these.

Flora


- 4.3 No species of interest were recorded during the survey and the managed grasslands were considered unlikely to support a rich flora.
- 4.4 The desk study highlighted a number of species of rare plant have been previously recorded within 2km of the Site, this included lizard orchid (*Himantoglossum hircinum*) which is listed on Schedule 8 of the Wildlife and Countryside Act 1981 and corn chamomile (*Anthemis arvensis*) classified as 'Endangered' on the England Red List. Almost all the rare and protected species highlighted within the data search are associated with marshland, arable land, heathland, and species-rich meadows.
- 4.5 The proposed development includes the construction of three new residential dwellings and their associated landscaping and parking. The construction area covers an area of species-poor improved/semi-improved grassland, and hardstanding; this will not result in the loss or change of use of these habitats. The lost habitat is not listed within the Section 41 of the NERC Act 2006 as being of principal important to the conservation of biodiversity within the UK and was not considered suitable to provide opportunities for protected botanical species.
- 4.6 **No further botanical surveys are required.**

Badgers

- 4.7 The Site was visually searched for evidence of the presence of badgers (*Meles meles*), including setts, footprints, latrines, and snuffle marks. No evidence for the presence of badgers was identified while on site and there were no obvious badger runs leading into hedgerows.
- 4.8 There were 7 records of badgers returned within the desk study from within 2km of the Site. The nearest record to the site was a record 580m to the north of the Site with the most recent record being from 2022.
- 4.9 **No further survey is necessary; however, precautionary measures detailed in paragraph 4.25 will be adhered to, to avoid disturbing nocturnal species and foraging mammals.**

Bats

4.10 There were nine buildings within the construction area and several trees within the wider ownership boundary. All of the buildings within the site boundary are to be impacted however, mature trees within the hedgerows will be retained through the development; therefore, there will be no impacts to possible roosting bats within these. The table below outlines potential roost features found within each of the buildings.

Photos	Notes
	<p>Building A</p> <p>This building consisted of the derelict, single story, former dwelling at 9 Manor Road. The building had brick/breezeblock footings with a timber frame and concrete render exterior. The roof had a smooth, flat surface with no tiles. The building was no longer occupied at the time of survey.</p> <ul style="list-style-type: none"> • The exterior walls were in poor condition with many cracks and holes noted within the concrete render. This would provide ingress points to the wall void and allow roosting opportunities. • Cracks and holes were noted around the chimney stack, these appeared large enough for bats. • Gaps were seen along the soffits, these appeared to lead into the roof void and would provide roosting opportunities. • The windows were poorly sealed and would provide points of ingress to the building interior. • No droppings or feeding remains were found within the interior. The loft space could not be inspected at the time of survey. <p>This building was considered to have moderate bat roost potential.</p>



Building B

This consisted of a Nissen hut style structure. Constructed with curved concrete/asbestos type panels with overlapping timber boards along the south-west aspect. This structure was being used for storage at the time of survey.

- The structure was poorly sealed, and draughty.
- None of the gaps between overlapping boards/panels were considered large enough for bats.
- No droppings or feeding remains were found within the building.

This building was considered to have negligible bat roost potential.



Building C

This consisted of two small single story wooden shed/storage buildings. The first was of interlocking timber board construction with a pitched, corrugated, concrete/asbestos style panel roof. The second structure was an old animal shelter of timber board construction with a single skin corrugated sheet metal roof.

- Gaps were noted between loose boards on the exterior of the structure these could be utilised by roosting bats.
- There was a small roof void in the first structure, there could have been roosting opportunities within this. The void had several points of ingress.
- No droppings or feeding remains were observed throughout the survey.

This building was considered to have low bat roost potential.



Building D

This was an old single skin corrugated sheet metal barn with an open front and timber frame. The structure was being used for storage at the time of survey.

- There were some gaps large enough for bats noted between wooden beams and around the timber framework.
- There was a section of overlapping wooden boards within the building. There were several gaps and cracks within this section creating further roosting opportunities.
- No droppings or feeding remains were found within the building.

This building was considered to have low bat roost potential.



Building E

This was a single-story structure attached to the eastern aspect of building C. The structure was of breezeblock, corrugated sheet metal and overlapping wooden board construction with a single skin corrugated sheet metal roof.

- The structure was light and airy, with leaking water in places. Any possible roosting points were adjacent the exposed metal, and were considered unlikely to maintain suitable temperature for bats.
- No droppings or feeding remains were found within the building.

This building was considered to have negligible bat roost potential.



Building F

This was a small, former poultry shed of timber frame and overlapping timber board construction with a pitched single skin asbestos type roof.

- The structure was light and airy and was considered unlikely to maintain a constant temperature suitable to support roosting bats.
- None of the gaps between overlapping boards/panels were considered large enough for bats.
- No droppings or feeding remains were found within the building.

This building was considered to have negligible bat roost potential.



Building G

This consisted of a Nissen hut style structure, of breezeblock construction with a curved concrete/asbestos type roof. This structure was being used for storage at the time of survey.

- The structure was well sealed and was dark and dry at the time of survey.
- Some of the gaps between overlapping panels were considered large enough for roosting bats.
- A small hole with scratch marks was noted in the top right corner of the door in the north-east aspect of the building.
- Further points of ingress were noted around the large, corrugated metal doors.
- No droppings or feeding remains were found within the building.

This building was considered to have low bat roost potential.



Building H

This building was an open fronted, single skin, corrugated sheet metal barn with a timber frame. The building was used for storage and as animal shelter at the time of survey.

- The structure was poorly sealed, and draughty.
- The building was considered unlikely to maintain a suitable temperature for bats.
- Any potential roost points were against the bare metal which would likely cause temperature fluctuations.
- No droppings or feeding remains were found within the building.

This building was considered to have negligible bat roost potential.



Building I

This consisted of a corrugated sheet metal Nissen hut style structure. This structure also had a metal frame. This structure was being used for storage at the time of survey.

- The structure was poorly sealed, and draughty.
- No potential roost sites were found within the building and the structure was not considered suitable for maintaining an appropriate temperature.
- No droppings or feeding remains were found within the building.

This building was considered to have negligible bat roost potential.

4.11 The data search returned 4 bat records of at least 2 species within 2km of the Site; these were pipistrelle (*Pipistrellus sp.*) and brown long-eared (*Plecotus auritus*) bats within 2km of the Site.

- 4.12 **As several buildings are considered to have bat roost potential, further surveys will be required. These surveys should be designed by a suitably qualified ecologist. Buildings with moderate potential will require two surveys between May and September with at least one survey between May and August, buildings with low potential will require a single survey between May and August.**
- 4.13 **As the Site contains suitable foraging habitat and commuting routes for bats, the Site will incorporate sensitive lighting – ensuring the site is not illuminated during works during and post construction.** This will follow guidance provided by the Bat Conservation Trust (Bats and Lighting in the UK, 2009), to ensure foraging and commuting bats using adjacent habitats are not negatively impacted. Lighting measures should also be applied to temporary security lighting used during the construction phase. This will include low pressure sodium lamps, with hoods, cowls, or shields, to prevent light spillage.

Birds

- 4.14 The hedgerows and mature trees along the site boundaries provided ideal nesting habitat for a range of bird species. A wood pigeon (*Columba palumbus*) nest was seen within Building C, a blackbird was also recorded carrying nesting material into the hedgerow along the south-western boundary. The improved/semi-improved grassland lacked a suitable structure for ground nesting species and appeared regularly disturbed.
- 4.15 The data search returned a high number of records of common and protected species that have been observed in the local landscape. Other notable species in the area include Yellowhammer (*Emberiza citrinella*), turtle dove (*Streptopelia turtur*), and nightingale (*Luscinia megarhynchos*).
- 4.16 **Any hedgerow or building clearance should be conducted outside the nesting bird season or following a nesting bird check** (carried out by an experienced ornithologist/ecologist); should any active nests be found, then clearance will stop until young have fledged.

Great Crested Newts & Reptiles

- 4.17 Habitats recorded throughout the Site were considered suitable for herptiles particularly amphibians. The semi-improved grassland, which had been left unmanaged, surrounding the bungalow provided suitable foraging habitat for reptiles and amphibians including GCN. The hedgerows and wet ditches on the north-east and south-eastern boundaries had a dense understory and were mixed species which provided ideal foraging and commuting potential for any herptiles. There were several rubble, wood and brash piles recorded throughout the site, as well as extensive damage to the building foundations and flooring. This all created ideal refugia and hibernation opportunities for herptiles. There were several potential amphibian breeding ponds highlighted on OS maps within 500m of the Site boundary.
- 4.18 There were 19 records of GCN returned in the data search, the nearest of these records was from approximately 260m east of the site with two other records from within 500m. Other amphibians recorded in the local area were smooth newt (*Lissotriton vulgaris*), there were 5 records total with the nearest being from approximately 260m south of the site. There were no records of reptiles returned within the data search.
- 4.19 **Due to the nearby records and potential habitat found on and adjacent to the Site it is recommended that further GCN surveys are undertaken (and if needed a mitigation license applied for), or a district level license is obtained. It is also recommended that no vegetation clearance or building demolition is carried out until after surveys completed or license obtained.**

Hedgehogs

- 4.20 The grassland habitat within the Site offered potential foraging habitat for hedgehogs; the shorter grassland provided good access to potential prey items. The adjoining hedgerows were well connected to other habitats so were considered suitable to be utilized as a commuting corridor.
- 4.21 Although no evidence of hedgehogs was recorded during the survey, the data search returned 5 records of hedgehog within 2km of the Site from 2014 to 2021. The nearest record was from approximately 1.5 km south of the site.
- 4.22 **No further survey is necessary; however, as the Site provides suitable foraging habitat for foraging mammals, and hedgehogs and badgers have been recorded in the local area, construction works will implement several precautionary measures, including the following:**
- Covering excavations overnight to prevent animals falling in, or the provision of an escape ramp;
 - Safe storage of materials that may harm animals; and
 - Security lighting to be set on short timers to avoid disturbing nocturnal animals using the Site and immediate surrounding area – it will be directional to avoid boundary features (trees and hedgerows).

Invertebrates

- 4.23 The hardstanding, buildings and maintained grassland areas were unsuitable for supporting assemblages of common and rare/protected terrestrial invertebrates, however the mature hedgerows and trees along boundaries were considered more suitable for supporting invertebrate populations. These suitable features are set to be retained throughout the development.
- 4.24 The data search included records of several S41/UKBAP beetles, true bugs, moths, and rare butterflies – such as small heath (*Coenonympha pamphilus*), white admiral butterfly (*Limenitis Camilla*), and lunar yellow underwing (*Noctua orbona*).
- 4.25 **No further survey is necessary due to the overall size and types of habitats being lost.**

5. Conclusions

- 5.1 The preliminary ecological appraisal found the Site contained habitats suitable for supporting protected species – bats, great crested newts, reptiles, and breeding birds. Hedgehogs are listed as a Species of Principal Importance in England (and listed on Schedule 6 of the Wildlife and Countryside Act 1981 – making it illegal to kill or injure through certain methods) and so should also be considered as part of this application. The following measures will be implemented to minimise the risk of harm to individual animals:
- Bat surveys are required for buildings A,C,D and G. These will need to be undertaken between May and September with at least one survey per building needing to be undertaken between May and August.
 - Full GCN surveys of ponds within 500m of the site are required or a district level license obtained.
 - Sensitive lighting measures to prevent disturbance to foraging bats or other nocturnal species. An experienced ecologist will liaise with construction staff to inform these measures.
 - Covering of excavations and/or provision of exit ramps is recommended during works to prevent harm to mammals such as hedgehogs.
 - If vegetation clearance (hedgerow and trees) is required then this is to be carried out outside the breeding bird season or following a nesting bird check by a suitably experienced ecologist.
- 5.2 In addition to having a negligible impact to biodiversity within the construction boundary, the development will not negatively impact species or habitats within the wider ownership boundary or adjacent land. There will be no impact on any SSSIs or National Site Network conservation areas and no requirement for a Habitat Regulations Assessment.

6. References

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Appendix I: Site Photos



Area of semi-improved grass surrounding the bungalow.



Apple trees in the corner of the semi-improved grassland.



Hedgerow along the south-west hedgerow.



Area of sheep grazed paddock.



Managed conifer hedge and closed board fence along the north-east boundary.



Mature mixed hedgerow along the north-eastern boundary.



Managed, mixed hedgerow.



Wood and brash pile.



Log pile outside of building



Rubbles pile on adjacent to hedgerow



Wet ditch adjacent to southern hedge.



Cracks to walls at ground level.

Appendix II: Species Lists

Plants

<i>Acer campestre</i>
<i>Achillea millefolium</i>
<i>Anthriscus sylvestris</i>
<i>Bellis perennis</i>
<i>Cardamine hirsuta</i>
<i>Cirsium vulgare</i>
<i>Crataegus monogyna</i>
<i>Cornus sanguinea</i>
<i>Conium maculatum</i>
<i>Fraxinus excelsior</i>
<i>Geranium sp</i>
<i>Helminthotheca echioides</i>
<i>Lamium purpureum</i>
<i>Malus sp</i>
<i>Prunus spinosa</i>
<i>Primula vulgaris</i>
<i>Potentilla reptans</i>
<i>Plantago lanceolata</i>
<i>Ranunculus repens</i>
<i>Rubus fruticosus agg</i>
<i>Senecio vulgaris</i>
<i>Taraxacum agg</i>
<i>Trifolium sp</i>
<i>Urtica dioica</i>
<i>Ulmus sp</i>

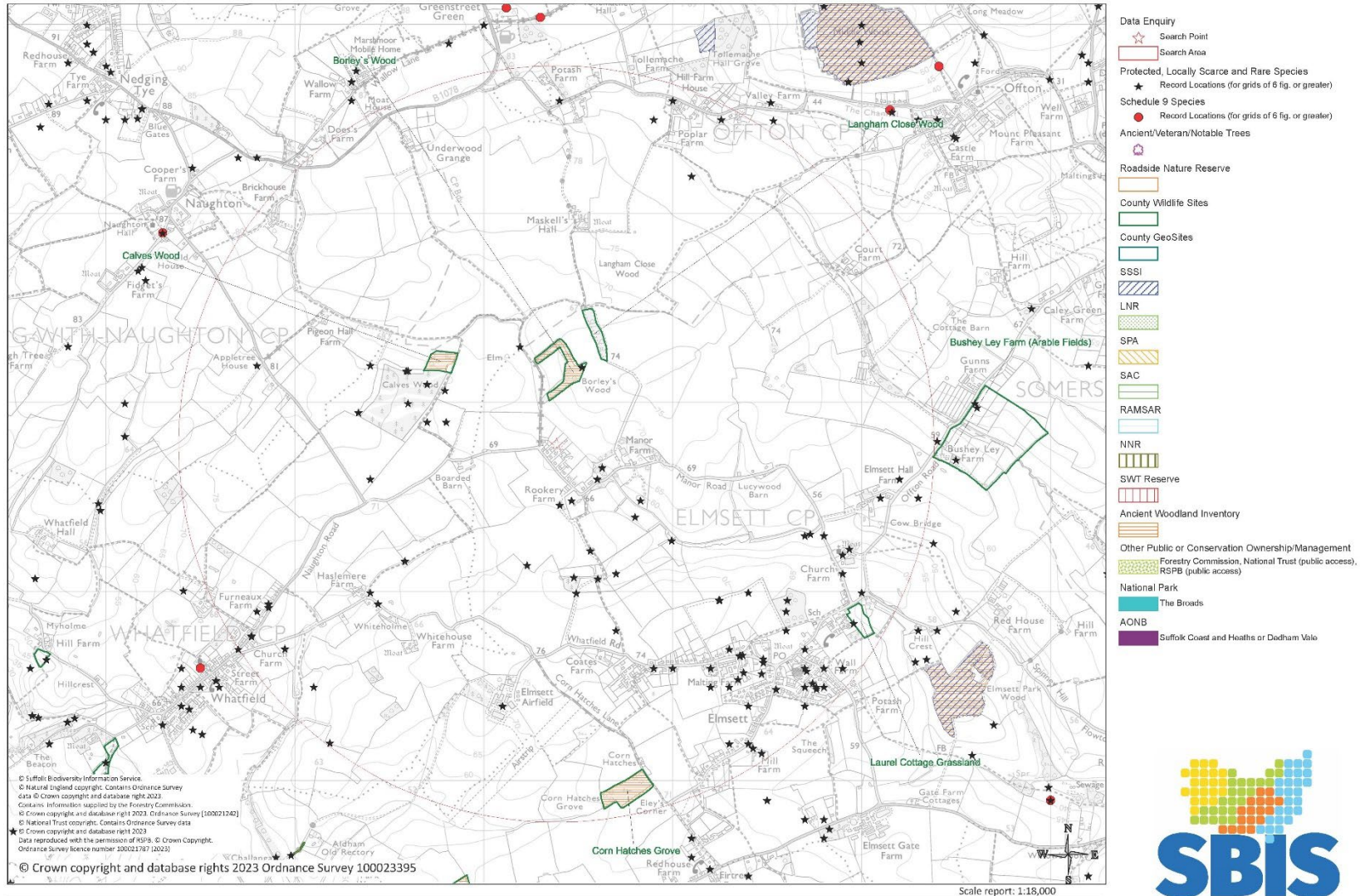
Appendix III: Figures

Phase 1 Habitat Map

TM 0447 3776: 9 Manor Road, Elmsett, Suffolk



Statutory and Non-Statutory Designated Sites within 2km of the Site



Abrehart Ecology (9 Manor Road, Elmsett TM04385 47784) 2km Data Enquiry



Date: 20/03/2023 | Drawn by: Andy Mercer

Appendix IV: Relevant Protected Species Legislation

Species	Legislation	Protection
Bats	<ul style="list-style-type: none"> ▪ Conservation of Habitats and Species Regulations (2010) (as amended) ▪ Wildlife and Countryside Act (WCA) (1981), Schedule 5 (as amended) ▪ Wild Mammals Act (1996) 	<p>It is an offence to:</p> <ul style="list-style-type: none"> ▪ Intentionally kill, injure or take any bat ▪ Intentionally or recklessly disturb a bat ▪ Intentionally or recklessly damage, destroy or obstruct access to a bat roost
Widespread Reptiles	<ul style="list-style-type: none"> ▪ Wildlife and Countryside Act (WCA) (1981), Schedule 5 (as amended) 	<p>It is an offence to:</p> <ul style="list-style-type: none"> ▪ Intentionally kill or injure a reptile ▪ Sell, offer or expose for sale, have in possession or transport for the purpose of sale any live or dead reptile or any part of, or anything derived from, a reptile
Birds	<ul style="list-style-type: none"> ▪ Wildlife and Countryside Act (WCA) (1981) (as amended) 	<p>It is an offence to:</p> <ul style="list-style-type: none"> ▪ Intentionally kill, injure or take any wild bird ▪ Intentionally take, damage or destroy nests in use or being built ▪ Intentionally take, damage or destroy eggs <p>Species listed on Schedule 1 of the WCA (1981) are afforded additional protection, making it an offence to intentionally or recklessly disturb such species at, on or near an active nest</p>