
Ecology Report

PROPOSED TREE HOUSE EVENT SPACE
Monks Hall, Syleham, Suffolk

September 2021



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Executive Summary

MHE Consulting Ltd were instructed to undertake an ecological survey and assessment of an area of woodland at Monks Hall, Syleham, Suffolk. A planning application will be submitted to Mid Suffolk Council to create a tree house hideaway that provides a family retreat and quest accommodation for Monks Hall.

The application site comprises an area of broad-leaved woodland. An arable field exists to the west with a grass margin adjacent to the woodland. Understorey vegetation comprises mostly of ruderal vegetation including common nettle (*Urtica dioica*), ivy (*Hedera helix*) and scattered bramble (*Rubus fruticosus* agg.) and tree seedlings.

A tree roost assessment identified no evidence of roosting bats within three trees which require felling and any trees which require some minor limb works and crown lifting to allow the construction of the tree house. Two dead/dying oak trees are located to the north east of the development support moderate to high bat roosting potential. The woodland provides optimal bat commuting and foraging opportunities for bats and nesting, song perch and foraging habitat for a range of bird species.

The woodland and grass margin provide foraging and refuge habitat for amphibians and reptiles including potentially great crested newts (GCN) (*Triturus cristatus*) with the nearest historical records c. 1.5km to the east. As there are no ponds within 500m of the proposed tree house, no impacts are predicted with mitigation measures identified to ensure legal compliance.

Hedgehogs (*Erinaceus europaeus*) may forage and seek refuge within the woodland and along the grass margin. An existing hedgerow along the western edge of the woodland supports native species and is considered a S. 41 list habitat under the NERC Act 2006.

Recommendations are made to avoid wildlife offences and ecological impacts. Where impacts cannot be avoided, measures are proposed to mitigate remaining effects including timing of works and good working practices. Compensation measures and biodiversity enhancements are proposed. Standard planning conditions are referenced to secure the recommended measures.

1 Introduction

1.1 BRIEF

MHE Consulting Ltd were instructed to undertake an ecological survey and assessment of an area of woodland at Monks Hall, Syleham, Suffolk (TM 46182 59828; Figure 1). A planning application will be submitted to Mid Suffolk Council to create a tree house hideaway that provides a family retreat and quest accommodation for Monks Hall.

The ecological survey and this report are necessary to:

- Identify the existing ecological value of the site;
- Identify the need for further (e.g. protected species) surveys;
- Assess any potential adverse impacts of the proposed development on ecological features of the site or nearby designated sites;
- Make recommendations for mitigation (if required); and
- Identify opportunities for biodiversity enhancements and, consistent with national and local planning policy, net gains.

This report will be used to develop the proposals as necessary, and to form the basis for the submission of biodiversity information with any planning application. It reflects the site at the time of the survey and should be reviewed and revised as appropriate.

1.2 SITE LOCATION AND DESCRIPTION

The application site (Figure 1) comprises an area of broad-leaved woodland (Photos 1 and 2). An arable field (Photo 3) exists to the west with a grass margin adjacent to the woodland. Understorey vegetation (Photo 4) comprises mostly of ruderal vegetation including common nettle (*Urtica dioica*), ivy (*Hedera helix*) and scattered bramble (*Rubus fruticosus* agg.) and tree seedlings.

2 Planning policy and legislation

2.1 INTRODUCTION

This chapter summarises the key legislation and policies relevant to assessing the biodiversity impacts of the scheme upon habitats and species.

2.2 PLANNING POLICY

2.2.1 *National Planning Policy Framework (NPPF)*

The National Planning Policy Framework was originally published in 2012 and most recently revised in July 2021. The document sets out the Government's planning policies for England and provides guidance on how these policies are expected to be applied. It provides a framework for, and must be taken account of within, locally prepared plans for housing and other development, and is a material consideration in planning decisions.

An overarching objective of the NPPF, which aims to integrate and secure net gains, is to contribute to protecting and enhancing the natural, built and historic environment; including making effective use of land, helping to improve biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy.

The full NPPF is available to view online using the gov.uk website: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachm ent_data/file/1005759/NPPF_July_2021.pdf . Policies of particular relevance to development and biodiversity include 174, 180, 181 and 182.

174. Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
- c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

180. When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

181. The following should be given the same protection as habitats sites:

- a) potential Special Protection Areas and possible Special Areas of Conservation;
- b) listed or proposed Ramsar sites; and
- c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

182. The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects) unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.

2.2.2

Local Plan

Adopted local plans provide the framework for development across England, and include policies related to conserving and enhancing the natural environment. Planning policies and supporting documents that are used to plan, deliver and monitor development across the Mid Suffolk District area can be found at <https://www.midsuffolk.gov.uk/planning/planning-policy/>.

Babergh and Mid Suffolk District Councils are currently in the process of generating a new joint Local Plan.

2.3

LEGISLATION

2.3.1

Natural Environment and Rural Communities (NERC) Act 2006

Section 40 places a duty on every public body in exercising its functions, to have regard to the purpose of conserving biodiversity; this includes restoring or enhancing populations or habitats. A key purpose of this duty is to embed consideration of biodiversity as an integral part of policy and public-sector decision making. *Species and*

habitats of principal importance in this respect are those published under Section 41 (“S. 41”) of the NERC Act 2006.

2.3.2 *Wildlife and Countryside Act 1981 (as amended)*

Rare and scarce habitats and species are afforded varying levels of protection under the Wildlife and Countryside Act 1981 (as amended) (hereafter “WCA 1981”). Some species and groups are afforded full protection (e.g. Schedule 1 bird species, bats), whilst others receive partial protection (e.g. widespread reptiles). Section 3.1 provides further detail relevant to this scheme. Species afforded legal protection are referred to by their relevant schedule (“Sch.”) within the act, i.e. “Sch. 1” (birds), “Sch. 5” (other animals), or “Sch. 8” (plants).

Invasive plant species such as Japanese knotweed (*Fallopia japonica*) and giant hogweed (*Heracleum mantegazzianum*) are listed on Schedule 9 of the WCA 1981. It is an offence to plant or otherwise cause these species to grow in the wild and this includes the development of sites such that the plant colonises land owned by a third party.

2.3.3 *The Countryside and Rights of Way (CROW) Act 2000*

The CROW Act 2000 strengthened and updated elements of the WCA 1981, and gave a statutory basis to biodiversity conservation, requiring government departments to have regard for biodiversity in carrying out its functions and to take positive steps to further the conservation of listed habitats and species. It strengthened the protection of SSSI and threatened species. Many of its provisions have been incorporated as amendments into the WCA 1981 and some have been superseded by the NERC Act 2006.

2.3.4 *The Conservation of Habitats and Species Regulations 2017*

The Conservation of Habitat and Species Regulations 2017 (hereafter referred to as the Habitat Regulations 2017) consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), and elements of the EU Wild Birds Directive, into national law. The 2017 Regulations provide for the designation and protection of ‘European sites’ (Special Protection Areas, SPAs, and Special Areas of Conservation, SACs), the protection of ‘European Protected Species’ (“EPS”), and the adaptation of planning and other controls for the protection of European Sites.

They have been amended by the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019, which continue the same provision for European protected species, licensing requirements, and protected areas after Brexit.

Under the Regulations, competent authorities i.e. any Minister, government department, public body, or person holding public office, have a general duty, in the exercise of any of their functions, to have regard to the relevant EC Directives.

2.3.5 *Protection of Badgers Act 1992*

The Protection of Badgers Act 1992 (hereafter “PBA 1992”) consolidates and improves upon the previous Badgers Act 1973, Badgers Act 1991, and Badgers (Further Protection) Act 1991. Under the PBA 1992 (except when holding a licence to do so) it is illegal for a person to wilfully; kill, injure, take, possess, sell, or otherwise cruelly treat

a badger. It is also illegal to dig out, damage, destroy, or obstruct entry to setts (including by use of dog(s)). Further information on offences, exceptions, and penalties are listed on the PBA 1992 on legislation.gov.uk.

3 Methodology

3.1 INTRODUCTION

This report has been produced with reference to relevant guidance, most notably:

- Guidelines for Ecological Report Writing (CIEEM, 2017);
- Biodiversity – Code of Practice for Planning and Development (BS 42020:2013¹);
- Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018); and
- Biodiversity Net Gain: good practise principles for development (CIRIA, CIEEM and IEMA, 2016).

The following sections summarise the approaches used to review existing data, and to undertake appropriate field surveys to scope and inform an Ecological Impact Assessment (EclA) for the scheme. Where further surveys are considered necessary, this is identified in section 5.

3.2 DESK SURVEY

The following data sources were consulted to assess the potential for the application site to support protected or notable habitats/species:

- Aerial photos, Ordnance Survey maps, Natural England (NE) open source data, and the MAGIC website (<http://magic.defra.gov.uk/>): These were used to identify habitat types including priority habitats, suitability for particular species/groups, and the locality of nationally and internationally designated sites; and
- Historical SBIS biological records: species and locally designated site records within 2km of the sites (Appendix A2).

From this exercise, it was concluded that the following legally protected species/groups may be present on the sites and/or land immediately adjacent:

- Amphibians including great crested newt (GCN) (*Triturus cristatus*)² and reptiles such as grass snake (*Natrix helvetica*)³;
- Mammals including badgers (*Meles meles*)⁴ and bats²;
- Breeding birds⁵ including Red and Amber status⁶ species; and
- S. 41⁷ list habitats such as hedgerows, and species such as hedgehog (*Erinaceus europaeus*).

In the context of the setting and nature of the developments, the 'zone of influence' of the scheme is considered restricted to habitats on the site and species within 250m of the proposed tree house.

3.3 FIELD SURVEY

An initial site walkover was undertaken on the 17 August 2021 to 1) record habitats present, and 2) assess the value of the habitats present for protected and notable species. A list of vascular plants and a description of the vegetation was made,

¹ BSI Standards publication BS 42020:2013 Biodiversity – Code of practice for planning and development.

² GCNs and all species of bats receive full protection under the WCA 1981 and Habitats Regulations 2017.

³ Widespread amphibians and reptiles receive partial protection under the WCA 1981.

⁴ Badgers and their setts are afforded protection by the PBA 1992.

⁵ All wild birds, their nests and eggs are protected under the WCA 1981 (as amended), level of protection varies per species.

⁶ The conservation statuses of UK bird species are listed within the Birds of Conservation Concern 4 (Eaton *et al.*, 2015).

⁷ S. 41 of the NERC Act 2006 lists 'habitats and species which are of principal importance for the conservation of biodiversity in England'.

including the location and extent of any Schedule 9 (WCA 1981) plants. Photos of the habitats present, and any field signs are provided in Appendix A1.

3.3.1 *Habitats and vascular plants*

The sites were walked with all distinct vegetation and habitat types, and any features of interest identified. Care was taken to record as many species as possible.

3.3.2 *Amphibians and reptiles*

a) Amphibians

The terrestrial habitat suitability of the site was assessed with respect to refugia and foraging habitat based on the known habitat preferences of GCNs and widespread amphibians such as common frog (*Rana temporaria*), smooth newt (*Lissotriton vulgaris*) and common toad (*Bufo bufo*).

No ponds exist within 250m of the application site and existing ditches are not considered suitable due to their ephemeral nature.

b) Reptiles

Habitats on and around the application sites were assessed with respect to the known foraging and refuge habitat preferences of widespread reptile species within arable landscapes.

3.3.3 *Bats*

a) Tree roost potential

Existing trees were visually checked to assess their Bat Roosting Potential (BRP) using the following criteria:

1. All potential roosting cavities (e.g. natural cavities, rot holes, woodpecker holes, splits, peeling bark) were inspected from the ground, using binoculars where necessary;
2. All potential niches would be assigned a category according to Bat Conservation Trust (BCT) protocols (Collins, 2016). These categories are listed below:
 - High Suitability: Trees with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat;
 - Moderate Suitability: Trees with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation;
 - Low Suitability: A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential. However, the tree(s) are of a size and age that elevated surveys may result in features being found; or features which may have limited potential to support bats; and
 - Negligible Suitability: Trees with negligible bat roost potential.
3. Where potential niches existed, niches below 5m high were physically inspected, using ladders where appropriate. Any cavities with the potential to support roosting bats were inspected with a SeeSnake endoscope and/or a small LED torch as necessary; and
4. All potential roosting niches were checked for the presence of bats (alive or dead), faecal staining, fur and/or scratch marks around the entrance and droppings within the cavities or attached to the trunk/bough below the entrance.

b) Foraging and commuting habitat

Consideration was given to the value of any potential foraging and commuting habitats (i.e. hedgerows, woodland) on the application site (Collins, 2016).

3.3.5 *Nesting birds*

The value of the sites was assessed in relation to nesting birds. This was supplemented with field records of birds seen or heard within the site, or nests observed.

3.3.6 *Badger*

The application site and any potential access routes for the construction phase were surveyed for evidence of badger activity including setts, day beds, latrines, diggings/snuffle holes, paths/runs, scratching posts, hair, and footprints. Any setts were classified as per current guidance (Scottish Badgers, 2018).

3.3.7 *S. 41 list habitats and species*

The site was surveyed to determine the presence of any S. 41 habitats such as native species-rich hedgerows. The site's suitability for S. 41 list species such as hedgehog and invertebrates were assessed based on their habitat preferences.

3.3.8 *Non-native invasive plant species*

The site was inspected for Schedule 9 species such as Japanese knotweed and giant hogweed.

3.4 SURVEY CONSTRAINTS

All of the site was accessible for inspection and there were no constraints to the survey.

3.5 SURVEYORS

The site assessment was undertaken by Christian Whiting BSc (Hons) MSc MCIEEM MEECW who has over 20 years' experience working as an ecologist. He holds Natural England (NE) survey licences for bats (2015-14745-CLS-CLS - Bat Survey Level 2, barn owl (CL29/00213), and great crested newts (Class A licence 2015-17633-CLS-CLS). He is a Registered Consultant (Registration RC089) on NE's Bat Low Impact Class Licence. He is an agent under the Environment Agency's and IDB water vole organisational and class licences respectively. His main areas of expertise are bats, vascular plants, amphibians and reptiles, otter (*Lutra lutra*) and water vole.

3.6 ASSESSMENT

Impacts and effects upon habitats and species are assessed with reference to the CIEEM Guidelines for Ecological Impact Assessment (2018) and are reported in Section 5, based on the baseline conditions reported in Section 4.

The assessment includes potential impacts upon habitats and species during the construction and operational phases of the scheme. It considers positive and negative impacts, their extent, magnitude and duration, frequency and timing, and reversibility.

4 Results

4.1 INTRODUCTION

This chapter summarises the results of the desk and field surveys.

4.2 BASELINE ECOLOGICAL CONDITIONS – DESK STUDY

4.2.1 *Designated sites*

Any locally designated sites, e.g. Local Nature Reserves (LNR) within 2km, nationally designated sites within 5km internationally designated sites within 13km are listed in Table 4.1.

Table 4.1 Relevant designated sites

Site name	Site designation
Syleham Churchyard	LNR
River Waveney Sections	CWS
Hoxne Brick Pit	SSSI

Locally designated sites

Two CWSs are located within 2km of the application site. The Syleham Churchyard CWS lies north west of the village of Syleham, in the flood plain of the River Waveney. The area east of the church comprises wet, unimproved grassland (Priority habitat) which supports good numbers of devil's-bit scabious and meadow saxifrage (both uncommon in Suffolk) as well as other species typical of this habitat including angelica, lesser stitchwort and agrimony.

The diversity of species here, together with its proximity to the river, provides habitat opportunities for invertebrates, small mammals, reptiles and amphibians. The churchyard is carefully managed to maintain the botanical diversity with some areas regularly mown and others managed with a summer hay cut.

The River Waveney Sections CWS forms the County boundary between Suffolk and Norfolk as it flows through the Mid Suffolk District from Diss in the west towards Bungay in the east. Many stretches of the River Waveney are of conservation value, however five sections have been selected as being of particular importance for aquatic wildlife. These sections are colonised by a species-rich aquatic flora. Fringing vegetation includes reed, pond sedge, marsh-marigold and nodding-bur marigold. This provides suitable habitat for water birds for example moorhen, mallard and coot. The watercourse itself supports a similarly varied flora including arrowhead, yellow water-lily and spiked water-milfoil. In addition to many common water birds, the River Waveney is noted for its significant population of breeding kingfishers. Kingfishers are known to breed in at least four of the selected sections. This bird is a specially protected species (Schedule 1, Wildlife and Countryside Act, 1981).

Given the scale, nature and location of the development, there are no anticipated significant effects upon the features of the sites.

Nationally designated sites

The Hoxne Brick Pit SSSI is a world-famous geological site. Research dates back to the 18th Century, when John Frere recognised that flint implements from here had been fashioned by early man. Detailed description of the sediments has demonstrated that

interglacial lacustrine deposits here occupy a basin in the chalky till and are in turn overlain by fluvial deposits penetrated by ice-wedge casts. The lacustrine deposits, the type deposits of the Hoxnian Interglacial, have been shown by pollen analysis to cover the 'Anglian' late glacial – early Hoxnian (Holl) interval. The upper series of largely fluvial deposits contain abundant vertebrate material attributable to late Hoxnian and Wolstonian Stages. Finds include fishes, voles, Norway lemming, extinct beaver, horse, several deer and a macaque. Sparse finds have also been made in the organic lake deposits of Hoxnian, Zone Holl, age. Hoxne is undoubtedly one of the most important Pleistocene sites in Britain.

The application site lies within a SSSI Impact Risk Zone (IRZ) for the Hoxne Brick Pit SSSI and Natural England should be consulted for “Planning applications for quarries, including new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction”. Therefore, the proposed tree house is not relevant and Natural England does not require consultation by the LPA.

Internationally designated sites

No sites are located within 13km of the application site and therefore no impacts are likely and no further assessment will be made within this document.

4.2.2

Species

a) Relevant biological records

No protected or notable species records exist for the property site boundary. Table 4.2 identifies species records for within 250m (in bold) and 2km of the application site boundary.

Table 4.2 Protected/notable species within 2km of the application site

Scientific name	Common name	Legal/conservation status
Amphibians		
<i>Bufo bufo</i>	Common toad	Sch. 5; S. 41
<i>Lissotriton vulgaris</i>	Smooth newt	Sch. 5
<i>Triturus cristatus</i>	Great crested newt	EPS; Sch. 5; S. 41
Reptiles		
<i>Natrix helvetica</i>	Grass snake	Sch. 5; S. 41
Bats		
<i>Myotis nattereri</i>	Natterer's	EPS; Sch. 5
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	EPS; Sch. 5
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	EPS; Sch. 5; S. 41
<i>Nyctalus noctula</i>	Noctule	EPS; S. 41; Sch. 5
<i>Plecotus auritus</i>	Brown long-eared	EPS; S. 41; Sch. 5
Other mammals		
<i>Arvicola amphibius</i>	Water vole	Sch. 5; S. 41
<i>Erinaceus europaeus</i>	Hedgehog	S.41
<i>Lutra lutra</i>	Otter	EPS; Sch. 5; S. 41
Birds		
<i>Apus apus</i>	Swift	Amber Status
<i>Emberiza citrinella</i>	Yellowhammer	Red Status; S.41
<i>Falco tinnunculus</i>	Kestrel	Amber Status
<i>Falco subbuteo</i>	Hobby	WCA1i
<i>Muscicapa striata</i>	Spotted flycatcher	Red Status; S. 41
<i>Passer domesticus</i>	House sparrow	Red Status; S. 41

Scientific name	Common name	Legal/conservation status
<i>Pyrrhula pyrrhula</i>	Bullfinch	Amber Status
<i>Streptopelia turtur</i>	Turtle dove	Red Status; S. 41
<i>Turdus iliacus</i>	Redwing	Red Status; WCA1i
<i>Sturnus vulgaris</i>	Starling	Red Status; S. 41
<i>Turdus philomelos</i>	Song thrush	Red Status; S. 41
<i>Turdus pilaris</i>	Fieldfare	WCA1i
<i>Turdus viscivorus</i>	Mistle thrush	Red Status
<i>Tyto alba</i>	Barn owl	WCA1i
Plants		
<i>Succisa pratensis</i>	Devil's bit scabious	RLEng.Lr(NT)

4.2.3

Priority habitats

No priority habitats exist within the bounds of the application site though several priority habitats are located within the 250m zone of influence. These include a large area of dry acid grassland located c.25m east of the application site boundary; areas of lowland deciduous woodland (broadleaved) immediately north and south of the application site boundary; and reedbed habitat located c.45m west of the application site.

4.2.3

Natural England Class Licence and eDNA records

Assessment of Natural England's GCN class licence return data and eDNA pond survey records show the closest positive record to be located c. 4.1km north-west of the application site (dated 2014), which is outside the normal dispersal range of the species.

4.3

BASELINE ECOLOGICAL CONDITIONS – FIELD SURVEY

4.3.1

Habitats and vascular plants

Descriptions of the habitats and the characteristic plants species present are provided below with photos provided in Appendix A1.

a) Broad-leaved woodland

The proposed tree house is to be located in the south-west corner of a block of woodland (Photos 1 and 2).

b) Hedgerow

A native hedgerow (Photo 1) of mostly hawthorn (*Crataegus monogyna*) along with hazel (*Corylus avellana*), elder (*Sambucus nigra* agg) exists along the western edge of the woodland.

c) Grass margin

A species-poor grass margin exists along the western side of the woodland (Photo 3).

d) Arable farmland

Arable farmland (Photo 3) exists to the west of the woodland.

e) Ruderal vegetation

The understorey of the woodland comprises of common nettle, ivy and other common species including some tree seedlings (Photo 4).

f) Dry ditch

A dry ditch exists along part of the southern boundary of the site.

4.3.2

Amphibians and reptiles

a) Amphibians

i) Ponds

No ponds exist within 250m of the application site boundary.

ii) Terrestrial habitat

The woodland provides suitable foraging and overwintering habitat for common amphibians, though GCNs are unlikely to be present given the lack of ponds within 250m of the application site.

b) Reptiles

The woodland provides areas of potential overwintering habitat for grass snake which may forage within the grass margin adjacent to the woodland but are only likely to periodically pass by or through the application site.

4.3.3

Bats

a) Tree roost assessment

The arboricultural impact assessment identifies trees T005, T006, T009 as requiring felling. T005 is an immature ash tree and supports no suitable roosting niches, whilst the two oak trees do contain some dead wood, but no obvious roosting niches were visible from the ground.

Two separate oak trees (Figure 2) are located outside of the proposed working area which are dead or dying with peeling bark (Photos 7 and 8) which are assessed as supported moderate (if only common species) to high (e.g. barbastelle) suitability for roosting bats.

b) Foraging and commuting Habitat

The woodland including the minor watercourse provides High value commuting and foraging habitat for bats. The grass margin provides foraging habitat of Moderate value (Collins, 2016)

4.3.4

Nesting birds

The woodland provides nesting, song perch and foraging habitat for a range of bird species including small passerines, including song thrush (*Turdus philomelos*) (Red List; S. 41 List), blackbird (*Turdus merula*) and wren (*Troglodytes troglodytes*).

4.3.5

Badger

No evidence of badger (e.g. snuffle holes, runs, latrines, setts) was observed.

4.3.6

S. 41 list habitats and species

a) Habitats

The broad-leaved woodland meets the qualifying criteria as *Lowland mixed deciduous woodland*. The adjacent grass margin qualifies as *arable field margins* S. 41 habitat.

b) Species

The lawn provides foraging habitat for hedgehog which may also nest/seek refuge in the base of boundary hedgerows. The various trees, shrubs and hedgerows along the garden boundaries could support some S. 41 list invertebrates, including Lepidoptera and Odonata.

4.3.7

Non-native invasive plants

No non-native invasive species were recorded within the application site boundary.

4.4

GEOGRAPHIC CONTEXT

The geographic context of a feature is a useful consideration within an assessment of impacts. For this report, the geographic frames of reference for the habitats and species present on sites are provided in Table 4.3; values are based upon the criteria in Table A3.1 and expert best judgements.

Table 4.3 Feature value based on geographic context

Feature	Value
Hedgerow, woodland, ruderal vegetation and grass margin	Local
Amphibians and reptiles	Local
Bats	Local
Nesting birds	Local
S. 41 habitats and species	Local

5 Assessment and recommendations

5.1 INTRODUCTION

The following section provides a summary description of the proposed developments, with an assessment of associated impacts and likely significant effects upon biodiversity.

The assessment and recommendations are based on use of the mitigation hierarchy, which in the first instance aims to avoid impacts. Where impacts cannot be avoided, they should be minimised (through mitigation). Only where impacts cannot be avoided or minimised should there be compensation for biodiversity harm.

Ecological enhancements are suggested, and consideration is given to individual as well as overall net gains or losses of biodiversity.

5.2 DESCRIPTION OF PROPOSED DEVELOPMENT

Planning permission is being sought to create a tree house hideaway that provides a family retreat and quest accommodation for Monks Hall which will result in the felling of 3 trees and some additional tree works including crown lifting. The proposed tree house and any sections of boardwalk requires screw piles for any structural supports. Potential impacts relate to roosting bats and nesting/roosting birds, common amphibians/reptiles and hedgehogs (vegetation clearance).

Assessments and recommendations below are based on drawings provided by Blue Forest and an Arboricultural Impact Assessment (AIA) prepared by Haydens available at the time of writing and should be updated accordingly as the scheme is subsequently amended.

5.3 FURTHER SURVEYS REQUIRED

It is generally advised that subject to no significant change in site management regimes, and dependent on the species present, baseline survey results remain valid for approximately 12 – 18 months (CIEEM, 2019). Exceptions include where mobile species are/may be present, where site management practices cease or change, or where existing guidance indicates otherwise.

5.4 ASSESSMENT OF IMPACTS

The EclA assessment process (CIEEM, 2018) involves:

- Identifying and characterising impacts and their effects;
- Incorporating measures to avoid and mitigate negative impacts and effects;
- Assessing the significance of any residual effects after mitigation;
- Identifying appropriate compensation measures to offset significant residual effects;
- and
- Identifying opportunities for ecological enhancement.

The emphasis in EclA is on the assessment of 'significant effects' i.e. an effect that either supports or undermines biodiversity conservation objectives for 'important ecological features' or for biodiversity in general. In broad terms significant effects encompass impacts on structure and function of defined sites, habitats or ecosystems and the conservation status of habitats and species including extent, abundance, and distribution.

The ecological features to be subject to detailed assessment in this report are those judged to be important and potentially affected by the project; protected species are included where the development will result in a potential breach of legislation.

5.5 HABITATS AND VASCULAR PLANTS

a) Potential impacts

Vegetation clearance and construction activities will result in the permanent loss of a small number of trees and shrubs and the temporary disturbance of the understorey vegetation. Accidental damage could occur to retained trees/shrubs, hedgerows, and the grass margin during construction. These impacts including the permanent loss of three trees is considered a negative effect at the local level and will require compensation.

b) Mitigation

Retained areas of woodland and the grass margin should be protected from damage with Heras (or similar) fencing during the construction phase. Given the close proximity of the site to a ditch which drains into a minor to the east a contractor Risk Assessment Method Statement (RAMS) should be developed ahead of works commencing to ensure Good Practice measures are used to avoid and/or minimise the risk of pollution. Measures may include, but are not exclusive to:

- Refuelling of chainsaws etc to be undertaken on a plant nappy or similar and away from the ditch;
- Using water based, non-toxic and biodegradable chemicals and hydraulic/fuel oils where possible;
- Storing chemical and fuels securely within double-banded bowsters or chemical stores (with a 110% capacity to contain any spillage);
- Mixing and washing chemicals and associated equipment in designated areas with wastewater safely disposed of via mains sewerage or tanker as appropriate
- Having adequate site security in place; regularly checking equipment for failures and/or leaks; and
- Keeping spill kits and booms present on the site and ensuring staff are trained in their use.

Further information is available via the Guidance for Pollution Prevention - Works and maintenance in or near water: GPP 5 January 2017 document, produced by Natural Resources Wales (NRW), the Northern Ireland Environment Agency (NIEA) and the Scottish Environment Protection Agency (SEPA)⁸

c) Residual effects

The proposed development will result in a minor residual loss of a semi-mature ash and two early-mature oaks which require compensation (see section 5.10).

5.6 AMPHIBIANS AND REPTILES

a) Potential impacts

Vegetation clearance, ground-breaking and construction activities could result in the potential entrapment, injury and mortality of amphibians (including potentially GCNs), reptiles and small mammals in open trenches (e.g. sewerage and surface water

⁸<http://www.netregs.org.uk/media/1418/gpp-5-works-and-maintenance-in-or-near-water.pdf>

drainage runs), and movement of stored building materials. Animals can also be harmed if they come into contact with caustic substances such as concrete or cement if required (e.g. septic tank). Such impacts could result in significant negative effects upon low numbers of individuals.

b) Mitigation

As per 5.5.

Given the potential for reptiles and amphibians to be present within adjacent habitats, good practice site clearance and construction measures are recommended, which could be secured as part of an amphibian and reptiles mitigation method statement, as follows:

- Clear the understorey vegetation by hand using strimmers and/or brush cutters in September/early October or mid-March onwards (if weather is suitable, e.g. no standing snow or an extended period of frosts);
- Each pile location with Root Protection Areas will be hand dug to 300mm to check for any roots in excess of 25mm are present. If any animals are encountered, they should be placed into long vegetation outside of the construction area;
- Any service runs and screw pile locations (where any sections of boardwalk exist) within the grass margin should be cut sensitively down to near ground level to remove cover using a 2-stage cut as follows:
 - ❖ The first cut should be to no lower than 150mm above ground level;
 - ❖ The area should be left for a minimum of 1 hour (preferable overnight) to allow any animals to move and the second cut should be to just above ground level.
 - ❖ The arisings should be raked off and can be allowed to compost down.
- Excavations for the service runs and footpaths/board walks will be dug and filled in 10m consecutive sections to prevent any animals falling in;
- Any hand mixing of mortar or concrete (if required) should be on ply boarding over a tarpaulin which is folded over the boarding at the end of each day to prevent animals coming into contact;
- Any excess concrete should be poured into a concrete skip, so it can then set to prevent animals coming into contact.
- All building materials and waste materials should be stored on bare ground or hard standing or stored off the ground on pallets to reduce risk of animals seeking refuge;
- Should any GCNs (Appendix A4) be encountered, works should stop immediately, and advice be sought from a suitably experienced ecologist. The poster in Appendix A4 should be erected in the welfare facilities provided for construction staff on site.
- Any other animals should be allowed to move out of the works area, or safely relocated to suitable habitats (e.g. grass margins, hedgerows and the woodland); and
- Any downpipes taking water off the roofs should be allowed to discharge into the woodland floor.

c) Residual effects

With mitigation implemented direct impacts upon animals will be avoided with no significant residual effect.

5.7

BATS

a) Potential impacts

No bat roosts will be directly impacted by the tree felling, but adjacent trees do support potential roosting niches and therefore, lighting impacts during the construction and operational phases could cause a significant impact on roosting bats as a result of

delayed emergence. Light intolerant bat species will avoid lit areas due to the increased risk of predation resulting in reduced foraging success and population recruitment considered a potential significant effect at the local level. Lighting impacts relate to security lighting of site compounds, access routes and light spillage from windows and doorways in the tree house once it is in use. In this instance, impacts on broadleaved trees and hedgerow habitats are most relevant.

The loss of 3 trees and some understorey vegetation will result in the permanent loss of a small area of high value bat foraging habitat considered insignificant in relation to the conservation status of the affected species.

iii) Roofing membranes

Research has shown bats can become entangled in modern breathable roofing membranes (BRMs) which are woven, causing injury or death to individuals (Waring *et al.*, 2013).

The proposed tree house will have a metal roof and vertical timber cladding on the walls and also some timber shingles on some roof sections. As long as no gaps greater than 5mm are created a modern BRM could be used on the roofs and walls. An insect/small mammal mesh is to be used which will prevent bats gaining access and therefore no impacts are predicted.

b) *Mitigation*

i) Roosting bats

None required.

ii) Light disturbance

A sensitive lighting strategy is proposed for the construction and operational phases to minimise lighting impacts upon retained natural habitats including boundary hedgerows and woodland and will follow current guidance as necessary^{9,10}. The following measures will be used:

- *Type of lamp (light source)*: Light levels should be as low as possible as required to fulfil the lighting need. Lighting should have a maximum of 7.5 to 10 lux and LED lights should be used using the warm white (or amber) spectrum, with peak wavelengths >550nm (2700 or 3000°K) and no UV component; and
- *Lighting design*: Lighting should be directed to where it is needed, with minimal horizontal spillage towards retained habitats including broadleaved trees and hedgerows. This can be achieved by restricting the height of the lighting columns/fixtures and the design of the luminaire, including the following measure:
 - Light columns/fixtures in general should be as short as possible as light at a low level reduces the ecological impact.
 - Luminaires with an upward light ratio of 0% should be mounted on the horizontal i.e. with no upward tilt.
 - If taller lights are required, and as a last resort, accessories such as baffles, hoods or louvres can be used to reduce light spill; and
 - PIR movement sensors and timers should be used to minimise the 'lit time'.

⁹ <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting>

¹⁰ www.eurobats.org/sites/default/files/documents/publications/publication_series/WEB_DIN_A4_EUROBATS_08_ENGL_NVK_28022019.pdf

iii) Commuting and foraging habitat.
As per Section 5.5.

iv) Roofing membrane

As long as no gaps greater than 5mm are created a modern BRM could be used on the roofs and walls. An insect/small mammal mesh should be used for any areas requiring ventilation to prevent bats gaining access.

c) Residual effects

No significant residual effects are predicted though the loss of the semi-mature ash and a couple of early mature oak trees should be compensated through tree planting.

5.8

NESTING BIRDS

a) Potential impacts

The permanent loss of 3 trees will result in the loss of potential nesting, song perch and foraging habitat considered a significant effect at the local level.

Building works including any tree felling or other works listed in the AIA during the breeding/nesting season (1st March to 31st August) has the potential to impact nesting birds. Accidental damage to retained boundary habitats, including trees and hedgerows, during construction could also affect breeding success and/or result in the destruction of active nests. The destruction of active nests would be considered a significant negative effect (as an offence under wildlife legislation) at the local level.

b) Mitigation

Habitat avoidance and mitigation as per sections 5.5 and 5.6.

Commencement of the works should take place outside of the nesting bird season. If this is not feasible, a check for nesting birds should be undertaken prior to works starting. If any active nests are present, works within 5m must wait until the young have fledged.

c) Residual effects

Impacts upon active nests during construction will be avoided with no significant effects anticipated. The loss of trees should be compensated (See section 5.10).

5.9

OTHER S. 41 LIST HABITATS AND SPECIES

a) Potential impacts

Vegetation clearance, ground-breaking and construction activities will result in the temporary (e.g. any materials storage areas) and permanent (where the spiral stairs fix into the ground) loss of foraging habitat for hedgehog. No hedgerows will be removed, though construction works could accidentally damage these habitats.

Ground-breaking activities (e.g. the excavation of piled foundations for any specialist supports, footpaths/board walks and service runs) could result in hedgehogs (and other wildlife) falling into any open excavations left overnight which have steep sides resulting in their becoming trapped. Animals could be injured or killed if the excavation is deep or they fall into or walk across wet concrete.

Such impacts have the potential to result in negative effects upon a small number of animals at the local level.

b) Mitigation

Habitat avoidance and mitigation as per section 5.5 and 5.6.

Site clearance should always consider the potential presence of hedgehogs with vigilance, with no clearance of dense vegetation undertaken when temperatures are regularly below 6°C. Animals encountered at other times should be moved to suitable cover, e.g. base of hedgerows or along the edge of the adjacent woodland (to the west of the site).

Any open excavations left overnight should be covered and then checked the next day prior to filling and any animals encountered be relocated out of the works area.

c) Residual effects

Direct impacts upon hedgehog and a nearby hedgerow will be avoided with no significant residual impacts.

5.10

COMPENSATION

The felling of 3 native trees should be compensated through native tree planting elsewhere within the landownership of the applicant's. As the applicant's land ownership includes land up to the River Waveney black poplar (*Populus nigra*) trees could be planted on the edge of the marshes/floodplain. Both male and female trees must be planted to allow fertilisation.

Some future thinning of the woodland would improve the condition of some of the existing early mature and mature trees.

5.11

CUMULATIVE EFFECTS

The Mid Suffolk District Council planning website was searched for relevant planning applications within a 1km buffer of the application site dating back two years. The majority of approved or currently being considered applications relate to minor alterations/extensions/change of use.

A barn conversion (Ref: DC/21/03750) was granted planning permission and bat surveys by Greenlight Environmental Consultancy in 2020 indicated use of the barn by a common pipistrelle though a bat licence was not deemed necessary.

A single dwelling (Ref: DC/21/02195) was approved on land to the south of Quiet Waters, Hoxne Road, Syleham and GCN surveys were undertaken in 2020 (Greenlight Environmental Consultancy).

There is no indication from the above applications that there will be any significant cumulative impact with the current application.


5.12

ENHANCEMENT OPPORTUNITIES

Recommended mitigation and compensation measures will address biodiversity losses from the scheme. A minimum of 5 of the 6 following enhancement measures should be implemented to deliver further biodiversity enhancements.

Table 5.1 Enhancement opportunities

Feature	Guidance
Pollen-rich climbers	1. Native nectar rich climbers such as traveller's joy (<i>Clematis vitalba</i>) and wild honeysuckle (<i>Lonicera</i>

	<i>periclymenum</i>) could be planted along the western edge of the woodland along existing hedgerows or trained up tree trunks.
Wildflower grass margin	<p>2. The existing grass margin along the western side of the woodland could be cut to near ground level in the spring, lightly cultivated and seeded with a wildflower seed mix such as Emorsgate's EM10F if the grassland is left largely unmanaged, or EM4F if the underlying soils are mostly clay. Pathways can be cut through the margin (See Plate 1 below)</p> 
Bat boxes	3. Five bat boxes (Appendix A4): x2 kent bat boxes, x2 Vincent Pro and x1 Causa maternity box to be erected on suitable mature trees on the western and southern edge of the woodland.
Small passerine bird boxes	<p>4. Two each of house sparrow terraces and combined robin/wren boxes (Appendix A5) could be erected on the tree house</p> <p>5. Two treecreeper (<i>Certhia familiaris</i>) boxes to be mounted on mature oak trees within the woodland.</p>
Raptor boxes	<p>6. A kestrel box (Appendix A5) could be erected on a suitable tree along the western edge of the woodland.</p> <p>7. A barn owl box (Appendix A5) could be erected on a suitable mature tree along a hedge line to the south-west of the proposed tree house so occupants could watch the box at a distance should it become occupied.</p>

5.13

CONCLUSIONS

Subject to securing the relevant NE licence(s) the proposed mitigation, compensation and enhancement measures will ensure the proposed scheme will minimise biodiversity impacts and provide some enhancements in accordance with planning policy.

Measures proposed could be secured through appropriate planning conditions as per the British Standard (BS 42020:2013¹). These could include conditions specific to a Biodiversity Method Statement (D.2.1) to provide detailed guidance for mitigation, compensation, and enhancement measures.

6 References

CIEEM (2017) Guidelines for Ecological Report Writing. Second edition. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. Chartered Institute of Ecology and Environmental Management, Winchester.

CIEEM (2019) Advice Note: on the lifespan of ecological reports and surveys.

CIRIA, CIEEM and IEMA (2016) Biodiversity Net Gain: good practice principles for development.

Collins, J. (ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition), Bat Conservation Trust, London.

Eaton, M.A., Brown, A.F., Noble, D.G., Musgrove, A.J., Hearn, R., Aebischer, N.J., Gibbons, D.W., Evans, A. and Gregory, R.D. (2015) Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man. *British Birds* 102, pp296-341.

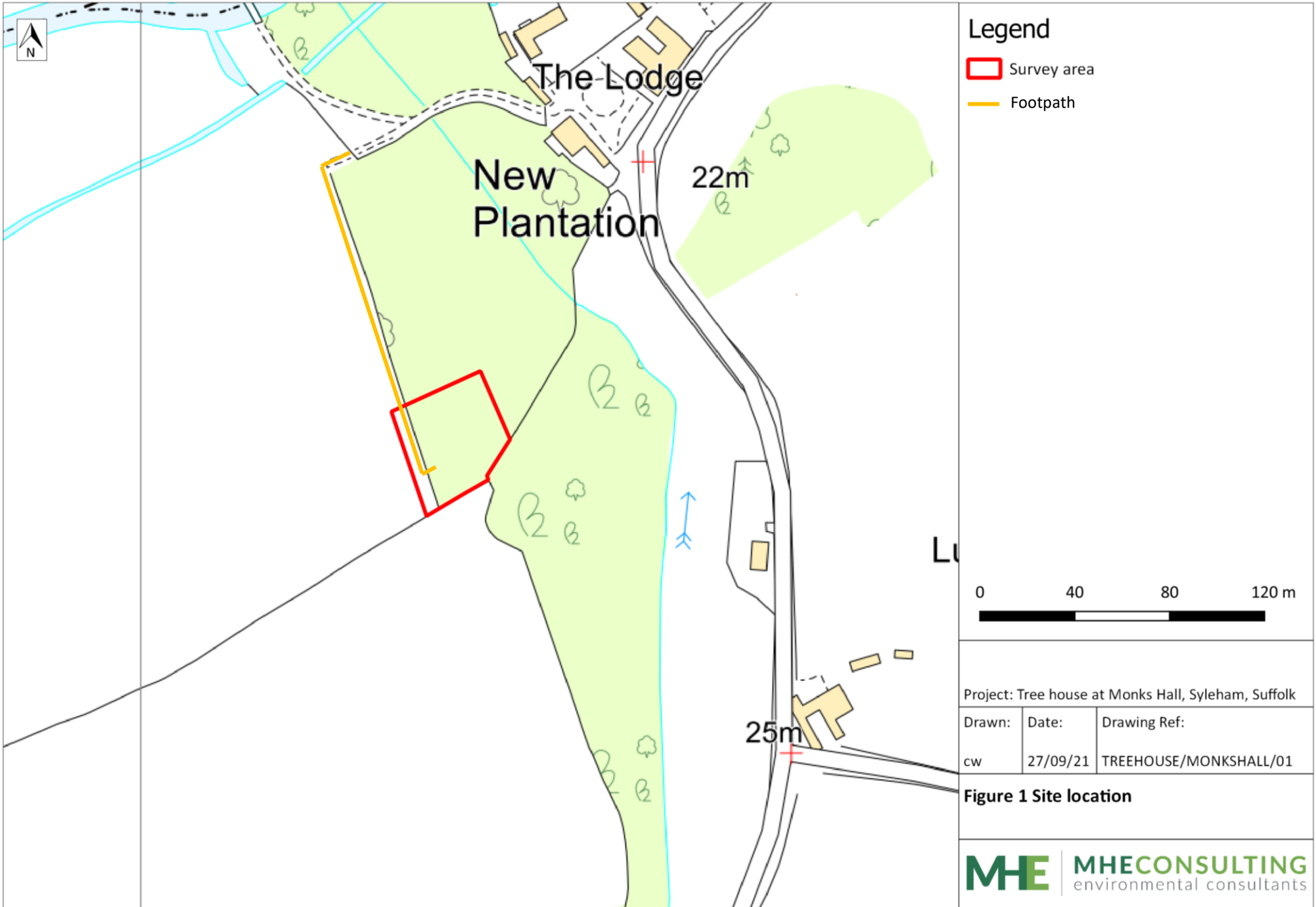
Mitchell-Jones, A.J. (2004) Bat mitigation guidelines, English Nature report

Muir, D. (2012), Amphibians in drains project report summary. *Biodiversity News*, 59, 16-18.

Scottish Badgers (2018) Surveying for Badgers: Good Practice Guidelines. Version 1.

Waring, S., Essah, E., Gunnell, K. and Bonser, R. (2013) Double jeopardy: the potential for problems when bats interact with breathable roofing membranes in the United Kingdom. *Architecture & Environment*, 1 (1). Pp. 1-13.

Figures



The Lodge

New Plantation

22m

Lu

0 40 80 120 m

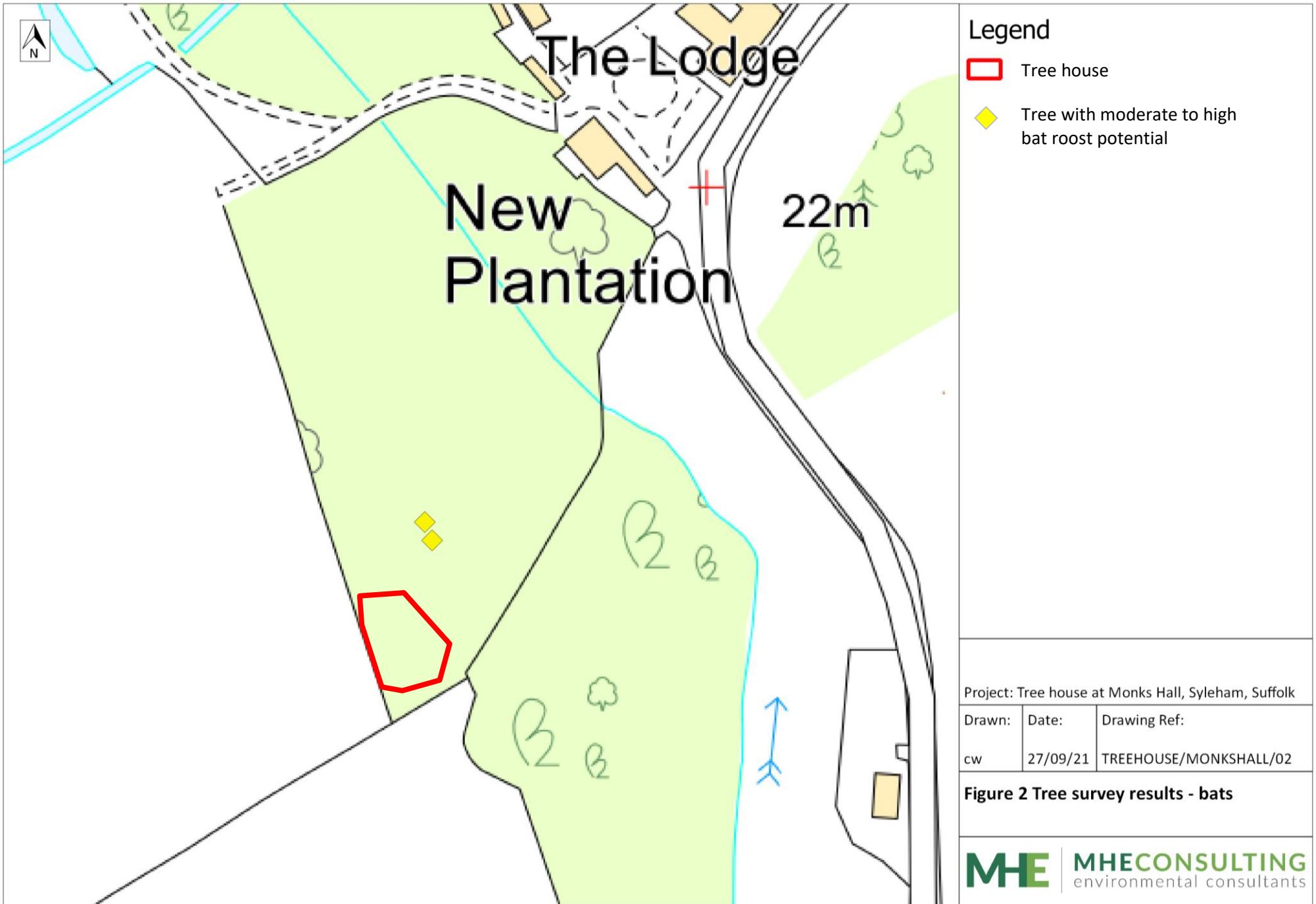
25m

Project: Tree house at Monks Hall, Syleham, Suffolk

Drawn: Date: Drawing Ref:

cw 27/09/21 TREEHOUSE/MONKSHALL/01

Figure 1 Site location



Appendices

Appendix A1 Photos



Photo 1 Location of the proposed tree house – view looking north-east



Photo 2 Woodland where the tree is proposed – view looking north



Photo 3 Arable field and grass margin to west of the woodland and proposed tree house



Photo 4 Understorey of ruderal vegetation

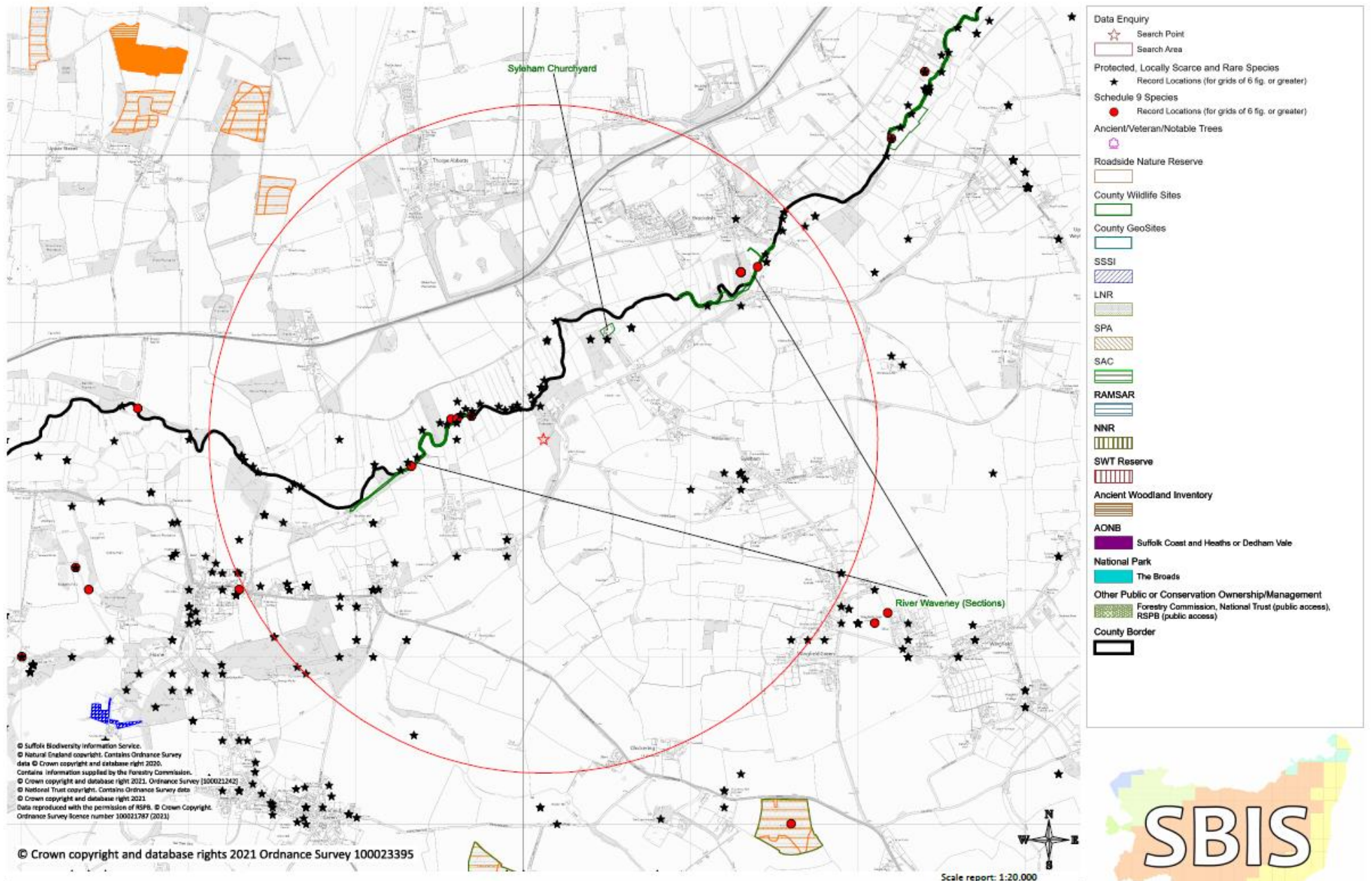


Photo 7 Dead oak with peeling bark to the north-east of the proposed tree house



Photo 8 Dead oak to north-east of the proposed tree house

Appendix A2 SBIS data search plan



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MHE Consulting (Monks Hall, Brockdish TM2011978302) 2km Data Enquiry

Appendix A3 EclA criteria

A3.1 General criteria for geographic context/value

Designation	Example
International	<ul style="list-style-type: none"> • SPA, SAC and Ramsar sites and the features that they have been designated for. • A sustainable area of habitat listed in Annex I of the Habitats Directive or smaller areas of such habitat which are essential to maintain the viability of a larger whole. • A sustainable population of an internationally important species e.g. UK Red Data Book (RDB) species or European Protected Species (EPS) of unfavourable conservation status in Europe (e.g. Annex II species: bats, GCNs etc.), of uncertain conservation status or of global conservation concern in the UK BAP.
National	<ul style="list-style-type: none"> • SSSI or a discrete area that meets the selection criteria for designation. • A sustainable area of priority habitat identified included on the S. 41 NERC Act list or smaller areas of such habitat that are essential to maintain the viability of a larger whole. • A sustainable population of priority species (listed under S. 41 of the NERC Act 2006). • A sustainable population of a nationally important species i.e. RDB species not included in above category but which is listed on Schedules 5 or 8 of the WCA 1981 (as amended). Also, sites supporting a breeding population of such species or supplying a critical element of their habitat requirements. • A sustainable population of uncommon or threatened Annex IV EPS species at a UK level. • A nationally scarce species (occurs in 30-100 10km squares in the UK) that has its main UK population within the district.
County	<ul style="list-style-type: none"> • A viable area of habitat identified in the county BAP. • A County Wildlife Site. • A sustainable population of common or non-threatened Annex IV EPS species at a UK level. • A Nationally Scarce species that does not have its main population within the county. • A sustainable population of a BAP species not included in the 'national' category above for which a county Action Plan exists.
Local	<ul style="list-style-type: none"> • Individual members of local populations of priority or other nationally/internationally important species which are not in themselves key for maintaining a sustainable population (e.g. individual dog otter passing through area with no holts or resting sites). • Other habitats and species not in the above categories but are considered to have some value at the district/borough level.

Appendix A4 Bat boxes

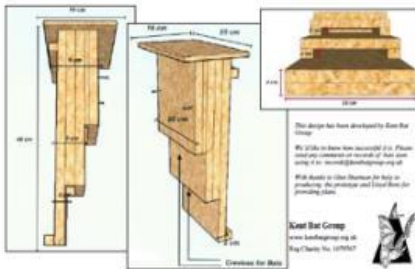
The Kent bat box

Simple to construct, self-cleaning and low maintenance.

The only critical measurement is the width of the crevice—these should be no larger than suggested. Other measurements are approximate.

Materials and construction
 Box to be made from untreated rough-sawn timbers
 Timber should be ~20mm thick
 The box should be waterproof and draught-free
 Cracks can be between 15 and 25 mm wide
 Fixing may be by use of brackets, durable bands or wires

Location
 Boxes are best fixed as high as possible in a sheltered wind-free position, exposed to the sun for part of the day.
 They can be fitted to walls, other flat surfaces or trees.
 A clear flight line to the entrance is important



Kent bat box



Causa maternity bat box



Vincent Pro bat box

Appendix A5 Bird boxes



Open Fronted Nest Box

£25.00

For birds such as robin and pied wagtail. Open fronted but with a generous canopy to screen from aerial predators. Place in good cover not in the open.

43 in stock

Category: bird and bar boxes

Description	Additional information	Reviews (0)
<i>Description</i> Height tbc Width Depth Typical Weight		



Willow Tit/Tree Creeper

£35.00

A long, thin box designed for fitting to smaller willow/birch trees, low to the ground, to encourage willow tit. Filled internally with damp sawdust/shavings/rotting wood as this species likes to excavate their own holes. The narrowing top crevice is designed to be suitable for roosting bats. Also suitable for tree creeper without the sawdust infill.

7 in stock (can be backordered)

Category: bird and bar boxes

Description	Additional information	Reviews (0)
<i>Description</i>		



Barn Owl Box

£163.90

Tax included.

Quantity

[ADD TO CART](#)

Minimum Qty	Discount
Buy 3 +	10% Off
Buy 5 +	20% Off



Kestrel nest box

Product Code: R403706

£ 79.99

★★★★☆ [Read all reviews](#)

Although designed for kestrels, other species may set up home in this lovely designed home for birds of prey!

Made from FSC cedar with recycled plastic mounting plates, this nest box has an interchangeable perch.

As there are a few things to look out for when handling birds of prey, please read the information in the 'advice' section before purchasing this nestbox.

[Read full information](#)

Qty

In Stock

£ 79.99