
Ecology Report

PROPOSED NEW BUILDING
Little Hamlet Green, Haverhill, Suffolk

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Executive Summary

MHE Consulting Ltd were instructed to undertake an ecological survey and assessment of land at Little Hamlet Green, Haverhill. A planning application is to be submitted to West Suffolk District Council for the creation of a new commercial building on an existing area of hard standing with grass and ruderal borders.

The site currently comprises a large area of hard standing, currently used for pallet and lorry storage, fringed by ruderal and grassy borders. Refuse and rubble piles are scattered across the site. The site is located within a small industrial estate, bordered by car parks to the south and west, a storage yard to the north and woodland to the east.

The habitats on site and just beyond provide foraging and refuge opportunities for some common amphibians, reptiles, hedgehogs (*Erinaceus europaeus*) and potentially some S.41 list invertebrates.

Recommendations are made to avoid wildlife offences and ecological impacts. Where impacts cannot be avoided entirely, measures are proposed to mitigate remaining effects including timing of works and good working practices, with likely compensation detailed. Biodiversity enhancements are proposed, and standard planning conditions are referenced to secure mitigation.

1 Introduction

1.1 BRIEF

MHE Consulting Ltd were instructed to undertake an ecological survey and assessment of land at Little Hamlet Green, Haverhill, Suffolk (TL 67920 45058; Figure 1). The report will inform a planning application to West Suffolk District Council for the construction of a new commercial building.

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 proposed development site is located off Stour Valley Road, Haverhill (Figure 1) and comprises a large area of hard standing currently used as a storage yard, with discrete areas of scrub, ruderal vegetation, and rough grassland.

Photos are provided within Appendix A1.

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. Existing planning policies and supporting documents used to plan, deliver, and monitor development across the West Suffolk District Council area can be found at https://www.westsuffolk.gov.uk/planning/planning_policies/local_plans/.

2.3

LEGISLATION

2.3.1

Environment Act 2021

The Environment Act received royal assent in November 2021. The Act will set clear statutory targets for the recovery of the natural world in four priority areas: air quality, biodiversity, water and waste, and includes an important new target to reverse the decline in species abundance by the end of 2030. Of particular relevance to development planning will the requirement for all new development to deliver a quantified (10%) Biodiversity Net Gain.

2.3.2

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.

2.3.3 *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 (*Reynoutria 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.

2.3.4 *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 SSSIs 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.

2.3.5 *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’ (SPAs, and 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.

2.3.6 *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.

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 site was walked with all distinct vegetation and habitat types, and any features of interest identified using the Phase 1 Habitat Survey methodology (JNCC, 2010). Care was taken to record as many species as possible.

3.3.2 *Amphibians and reptiles*

a) Amphibians

No ponds present within 250m.

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

b) Reptiles

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

3.3.3 *Bats*

a) Building inspection

No buildings exist on site.

b) Tree roost potential

Existing trees which may require removal were visually checked to assess their suitability for use by roosting bats 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;

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.

c) Foraging and commuting habitat

Consideration was given to the value of any potential foraging and commuting habitats (i.e., hedgerows, trees, streams, ponds, composting areas) on the application site.

3.3.4 *Nesting birds*

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

3.3.5 *Badger*

The application site and adjacent habitats were surveyed for evidence of badger activity including setts, day beds, latrines, diggings/snuffle holes, paths/runs, scratching posts, hair, and footprints. Any potential sett found was then assessed for evidence of recent use by badger and classified as per current guidance (Scottish Badgers, 2018).

3.3.6 *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 was assessed based on their habitat preferences.

3.3.7 *Non-native invasive plant species*

The site was inspected for Schedule 9 species such as Japanese knotweed (*Reynoutria japonica*) and giant hogweed (*Heracleum mantegazzianum*).

3.4 SURVEY CONSTRAINTS

Botanical surveys are typically best undertaken from late spring to early summer. It is considered likely that no notable plant species were overlooked given the limited footprint and managed nature of the site.

3.5 SURVEYORS

The initial site survey was undertaken by Jake Brendish BSc (Hons) MSc, an ecologist with 2 seasons' survey experience. His main areas of focus are birds, bats and vascular plants.

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) within 2km, nationally designated sites within 5km and internationally designated sites within 13km of the application site are listed below in Table 4.1.

Table 4.1 Relevant designated sites

Site name	Site designation
Ann Suckling Way	CWS
Broad Street Old Allotments	CWS
Bumpstead Road Grassland	CWS
Haverhill Disused Railway Line	CWS
Norney Plantation*	CWS
Haverhill Railway Walks	LNR
Over and Lawn Woods*	SSSI
Trundley and Wadgell's Woods, Great Thurlow*	SSSI

* Listed on the Ancient Woodland inventory for England.

Locally designated sites

Five CWSs and 1 LNR are located within 2km of the site. However, the proposed new building will have no direct or indirect impact on these sites.

Given the commercial nature of the scheme, no increase in footfall at the above sites is expected and no significant impacts are anticipated as a result of the proposed development.

Nationally designated sites

Over and Lawn Woods SSSI is of ancient origin and holds a variety of woodland community types noted for the heavy soil form of the hazel-ash stand type. The dominant tree species are pedunculate oak (*Quercus robur*) and ash (*Fraxinus excelsior*) standards together with ash, hazel (*Corylus avellana*) and field maple (*Acer campestre*) as coppice. Shrubs include spindle (*Euonymus europaeus*), guelder rose (*Viburnum opulus*) and wayfaring tree (*V. lantana*). The ground flora is characteristically of the dog's mercury (*Mercurialis perennis*)-bluebell (*Hyacinthoides non-scripta*) type together with a rich variety of additional ancient woodland plants including ramsons (*Allium ursinum*), yellow archangel (*Lamium galeobdolon*), wood anemone (*Anemone nemorosa*) and sanicle (*Sanicula europaea*). Of additional note is the presence of a number of locally rare species such as wood sorrel (*Oxalis acetosella*), woodruff (*Galium odoratum*), yellow pimpernel (*Lysimachia nemorum*) and the moss (*Fissidens exilis*).

Trundley and Wadgell's Woods SSSI contains a substantial area of ancient, semi-natural woodland as well as several later additions. The woods lie on a plateau of chalky boulder clay soils overlain in places by a thin layer of loess and sand. The areas of ancient woodland not modified by replanting consist mainly of the ash-maple type with

hazel also abundant. There are smaller areas of ash-hazel and some restricted areas of elm (*Ulmus sp.*) invasion, though much of the latter has now died. The ground vegetation of the ancient woodlands is dominated by dog's mercury and brambles (*Rubus sp.*) with bluebells locally abundant. Oxlips (*Primula elatior*) are found throughout the wood along with plants such as wood avens (*Geum urbanum*), figwort (*Scrophularia nodosa*) and hedge woundwort (*Stachys sylvatica*). Species characteristic of ancient woodland include early purple orchid (*Orchis mascula*), yellow archangel and sanicle.

The application site lies within a SSSI Impact Risk Zone for both sites listed above, but does not meet any of the criteria for consideration (e.g., aviation or livestock proposals). Given the nature and limited size of the development, no significant impacts or effects are anticipated in relation to any of the features of the designated site.

Internationally designated sites

None present within 13km, with no impacts predicted.

4.2.2

Priority habitats

Assessment of the Magic Map database returned an area of deciduous woodland immediately east of the site, with another section approx. 60m southeast. comprising the southern section of the proposed footprint. Other priority habitats include good quality semi-improved grassland 100m north and 100m east.

4.2.3

Species

No protected or notable species records exist from within the application site boundary. Species of relevance include are shown in Table 4.2.

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

Latin Name	Common Name	Designation
Amphibians and reptiles		
<i>Anguis fragilis</i>	Slow worm	Sch. 5; S. 41
<i>Bufo bufo</i>	Common toad	Sch. 5; S. 41
<i>Lissotriton vulgaris</i>	Smooth newt	Sch. 5
<i>Natrix helvetica</i>	Grass snake	Sch. 5; S. 41
<i>Rana temporaria</i>	Common frog	Sch. 5;
<i>Triturus cristatus</i>	Great-crested newt	Sch. 5; S. 41
<i>Zootoca vivipara</i>	Common lizard	Sch. 5; S. 41
Bats		
<i>Barbastella barbastellus</i>	Barbastelle	Sch. 5, S. 41
<i>Eptesicus serotinus</i>	Serotine	Sch. 5
<i>Myotis daubentonii</i>	Daubenton's bat	Sch. 5
<i>Myotis nattereri</i>	Natterer's bat	Sch. 5
<i>Nyctalus noctule</i>	Noctule	Sch. 5, S. 41
<i>Pipistrellus nathusii</i>	Nathusius' pipistrelle	Sch. 5
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	Sch. 5
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	Sch. 5, S. 41
<i>Plecotus auritus</i>	Brown long-eared bat	Sch. 5, S. 41
Birds		
<i>Chroicocephalus ridibundus</i>	Black-headed gull	Amber Status
<i>Columba oenas</i>	Stock dove	Amber Status

<i>Larus canus</i>	Common gull	Amber Status
<i>Linaria cannabina</i>	Linnet	Red Status
<i>Passer domesticus</i>	House sparrow	Red Status, S. 41
<i>Phoenicurus ochruros</i>	Black redstart	Sch. 1; Red Status
<i>Prunella modularis</i>	Dunnock	Amber Status
<i>Sturnus vulgaris</i>	Starling	Red Status, S. 41
<i>Turdus philomelos</i>	Song thrush	Amber Status, S. 41
Invertebrates		
<i>Acronita psi</i>	Grey dagger	S. 41
<i>Andrena proxima</i>	Broad-faced mining bee	RDBGB.R
<i>Coenonympha pamphilus</i>	Small heath	RLGB.Lr(NT); S. 41
Tyria jacobaeae	Cinnabar	S. 41
Other mammals		
<i>Erinaceus europaeus</i>	Hedgehog	S. 41
<i>Meles meles</i>	Badger	PBA 1992
<i>Muscardinus avellanarius</i>	Hazel dormouse	Sch. 5; S. 41; RLGB.VU
Plants		
<i>Anthemis cotula</i>	Stinking chamomile	RENG.VU
<i>Centaurea cyanus</i>	Cornflower	S. 41
<i>Fragaria vesca</i>	Wild strawberry	RENG.Lr(NT)
<i>Knautia arvensis</i>	Field scabious	RENG.Lr(NT)
<i>Mentha arvensis</i>	Corn mint	RENG.Lr(NT)
<i>Reynoutria japonica</i>	Japanese knotweed	Sch. 9
<i>Trifolium ochroleucon</i>	Sulphur clover	RENG.VU

4.2.4

NE open source GCN records

Assessment of Natural England's GCN class licence return data and eDNA pond survey records show the closest positive record (licence return) to be located c.2.7km northeast 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 (Appendix A1) and the characteristic plants species present are provided below.

a) Built environment

Most of the site is comprised of hard standing, with large slabs of concrete forming the base (Photos 1 to 4, Figure 2). In other areas, piles of rubble and stone are present. Cracks and gaps in the concrete are occasionally colonised by ruderal species listed below.

b) Open mosaic habitats on previously developed land (u1a)

The west, south, and east borders are lined with a 3-5m strip of ruderal vegetation (Photos 5 and 6) featuring scattered industrial spoil. Species include Bilbao fleabane (*Erigeron floribundus*), butterfly-bush (*Buddleia davidii*), broadleaved dock (*Rumex obtusifolius*), *Calystegia* sp., cock's-foot (*Dactylis glomerata*), coltsfoot (*Tussilago farfara*), common mouse-ear (*Cerastium fontanum*), *Cotoneaster* sp., creeping buttercup (*Ranunculus repens*), garlic mustard (*Alliaria petiolata*), goat willow (*Salix caprea*), groundsel (*Senecio vulgaris*), hedgerow crane's-bill (*Geranium pyrenaicum*), intermediate polypody (*Polypodium interjectum*), ivy (*Hedera helix*), purple toadflax

(*Linaria purpurea*), rough chervil (*Chaerophyllum temulum*), *Rosa sp.*, silver birch (*Betula pendula*), smooth sow-thistle (*Sonchus oleraceus*), spear thistle (*Cirsium vulgare*), sycamore (*Acer pseudoplatanus*), teasel (*Dipsacus fullonum*), wild carrot (*Daucus carota*) and yarrow (*Achillea millefolium*).

c) *Arrhenatherum* neutral grassland (g3c5)

A small section of rough grassland (Photo 2) exists to the northwest of site, featuring blackthorn (*Prunus spinosa*), bristly ox-tongue (*Helminthotheca echioides*), bulbous buttercup (*Ranunculus bulbosus*), butterfly-bush, cock's-foot, common bent (*Agrostis capillaris*), common mallow (*Malva sylvestris*), creeping buttercup, cut-leaved crane's-bill (*Geranium dissectum*), dandelion (*Taraxacum agg.*), fern-grass (*Catapodium rigidum*), herb-Robert (*Geranium robertianum*), hogweed (*Heracleum sphondylium*), mugwort (*Artemisia vulgaris*), oxeye daisy (*Leucanthemum vulgare*), purple toadflax, ribwort plantain (*Plantago lanceolata*), shining crane's-bill (*Geranium lucidum*) and wild carrot.

4.3.2

Amphibians and reptiles

a) Ponds

No ponds within 250m of site.

b) Terrestrial habitat

i) *Amphibians*

The tall grass sward to the northwest and ruderal vegetation around the site borders provides suitable foraging and dispersal habitat for amphibians, though the dry, sandy ground is suboptimal and suited more to common toad (*Bufo bufo*) than to common frog (*Rana temporaria*) or [REDACTED]. The trees and shrubs beyond the east and south of site provide some refuge opportunities.

ii) *Reptiles*

Local records exist for slow worm (*Anguis fragilis*), common lizard (*Zootoca vivipara*) and grass snake (*Natrix helvetica*) within 2km. The area of rough grassland and additional ruderal vegetation are small in extent and provide suitable habitat for slow-worm and common lizard. However, they are separated from areas of woodland and scrub to the east by the expanse of concrete. Rubble piles and other stored materials also provide excellent basking locations. However, the limited extent of the suitable habitats suggests that no significant populations are likely to be present.

4.3.3

Bats

a) Tree Roost Assessment

No suitable tree roosts were identified on site.

b) Foraging/commuting habitat

Foraging and commuting opportunities on site are generally poor. The site itself offers minimal cover for commuting bats, with this restricted to the eastern border between the shrubs and parked lorries. Foraging potential is also limited, though this time to the edges of the site where small areas of grassland and mosaic habitat grows tall and has the potential to support limited populations of invertebrate prey. The adjacent sandy bank to the east represents superior habitat for both commuting and foraging but will remain unaffected by the proposals.

With adjacent habitat considered, the site was assessed as representing low foraging and commuting habitat value (Collins 2016).

4.3.4

Nesting birds

Nesting opportunities are limited within the site boundary, with the vegetated areas being too small and the vegetation itself too sparse to provide enough cover for the species likely to be present. Some potential exists for urban and garden species to nest within the pallet stacks, though this is considered relatively unlikely due to the lack of cover and subsequent high risk of predation.

The surrounding habitats, such as the shrubs within the sandy bank, are likely to support a typical assemblage of urban/garden passerines.

4.3.5

Badger

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

4.3.6

Hazel dormouse

Though records indicate their presence within the local area, the habitats on site are considered highly unsuitable for hazel dormouse, with no scrub or tree cover within the site boundary. The tree cover to the east is outside the application site boundary and will be left untouched.

4.3.7

S. 41 habitats and species

a) Habitats

There are some discrete areas of open mosaic habitat but it is considered unlikely to meet the qualifying criteria for the S.41 habitat.

b) Species

There is some limited foraging potential for hedgehogs (*Erinaceus europaeus*) in the grassland and mosaic habitats. Trees and shrubs just beyond the boundary could potentially support some S. 41 list invertebrates including Lepidoptera.

4.3.7

Non-native invasive plants

No Sch. 9 or otherwise non-native invasives were recorded.

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 site are provided in Table 4.3; values are based upon the criteria in Table A2.1 and expert best judgements.

Table 4.3 Feature value based on geographic context

Feature	Value
Grassland, open mosaic habitat, ruderal vegetation, shrubs	Local
Amphibians and reptiles	Local
Bats	Local
Nesting and foraging 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 development, 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 construct a new commercial building within the footprint of the existing hardstanding. Some vegetation clearance (e.g. of the grassland and open mosaic habitats) will be required.

The assessment and recommendations below provide preliminary recommendations for mitigation and enhancements for the proposed development. They are based on the existing and proposed drawings by Patrick Allen & Associates Ltd (Drawing No: 4285 – 01B, 4285 – 2A, 4285 – 3A and 4285 – 04C) and information available at the time of writing and should be updated accordingly as the scheme is subsequently amended.

5.3 NEED FOR FURTHER SURVEYS

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

The works will result in the loss of areas of a small area of grassland and ruderal vegetation to the west of site. Loss of these habitats constitutes a negative ecological effect. Any accidental damage to trees and shrubs beyond the site boundary during construction would result in a significant negative effect at the local level.

b) Mitigation

The works footprint and associated disturbance should be minimised in extent as much as possible. Retained hedgerows, trees and grassed areas should be protected with temporary fencing (e.g., Heras or netlon) to prevent above ground damage and Root Protection Areas (RPAs) should be used to inform the detailed design.

c) Residual effects

Clearance of the site vegetation constitutes a negative ecological effect and requires compensation.

5.6 AMPHIBIANS AND REPTILES

a) Potential impacts

Ground-breaking and construction activities, in addition to limited vegetation clearance, could result in the potential entrapment, injury and mortality of amphibians (including potentially [REDACTED] through contact with caustic substances (e.g., wet cement), trenches (e.g., sewerage and surface water drainage runs), and movement of stored building materials.

During the operational phase site drainage comprising the use of gully pots and down pipes connecting to closed surface water drainage or those with silt traps can result in animals becoming trapped (Muir *et al.*, 2012) and impact upon amphibians.

Combined, such impacts could result in permanent negative effects upon low numbers of individuals.

b) Mitigation

Habitat mitigation as per section 5.5.

To avoid impacts upon amphibians, including potentially GCNs, good practice precautionary methods should be followed for the scheme, to include the following measures:

1. Areas of lawn immediately adjacent to the site (but not in the wider garden) should be kept short with regular mowing prior to and during construction.
2. Excavations should be filled on the same day they are dug or covered overnight with ply boarding and any gaps filled with damp sharp sand;
3. If this is not feasible access ramps should be created to allow animals to escape and the excavations should be inspected daily and immediately prior to infilling. Any animals (except for GCN) present should be moved into retained hedgerows and/or other boundary habitats providing adequate cover;

4. Footings and concrete slabs should be poured during the morning where possible to ensure it has solidified prior to dusk to reduce the risk of animals coming into contact with wet concrete;
5. Any hand mixing of mortar or concrete 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;
6. Any excess concrete should be poured into a concrete skip, so it can then set to prevent animals coming into contact;
7. All building materials and waste materials should be stored on hardstanding or stored off the ground on pallets to reduce risk of animals seeking refuge;
8. The GCN poster in Appendix A3 should be erected in the welfare facilities provided for construction staff on site. Should any GCNs be encountered, works should stop immediately, and advice be sought from a suitably experienced ecologist;
9. Any other animals should be allowed to move out of the works area, or safely relocated; and
10. **Downpipes taking water off the roofs should be sealed at ground level by using a leaf and debris screen⁷ to prevent amphibians entering drains or open drainage hoppers can be used as long as grills (holes must be $\leq 15\text{mm}$ wide) are used.**

c) Residual effects

With mitigation measures proposed, direct effects on individuals will be avoided. However, the removal of vegetation will result in a net loss of potential foraging and dispersal habitat for reptiles.

5.7

BATS

a) Potential impacts

i) Foraging and commuting habitats

The removal of the grassland and ruderal vegetation will remove an area of habitat considered negligible in relation to local foraging and commuting opportunities.

ii) Light disturbance

Lighting (construction and operational phases) can impact bat commuting and foraging behaviour and increase the risk of predation, which could affect foraging success and population recruitment considered a potential significant effect at the local level.

Lighting impacts relate to security lighting external to the building, and potentially from light spillage from internal lighting if the building is in use after sunset. In this instance, impacts on the adjacent sandy bank and trees are most important.

b) Mitigation

i) Foraging and commuting habitat

As per 5.5, protective fencing will be used to protect retained trees and other features.

iii) Light disturbance

Exterior lighting (as well as temporary security lighting during the construction phase) design must minimise lighting impacts upon retained natural habitats including the woodland and should follow current guidance as necessary^{8,9}:

⁷ <https://www.drainagepipe.co.uk/leaf-and-debris-gully-110mm-p-D94G/>

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

⁹ www.eurobats.org/sites/default/files/documents/publications/publication_series/WEB_DIN_A4_EUROBATS_08_ENGL_NVK_28022019.pdf

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 mature 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'.

c) Residual effects

No residual effects anticipated.

5.8

NESTING BIRDS

a) Potential impacts

Vegetation clearance will remove small areas of grassland and ruderal vegetation, considered to provide negligible nesting opportunities for birds. The superior nesting habitat provided by the adjacent bank and trees will be retained.

b) Mitigation

Habitat avoidance and mitigation as per sections 5.5 and 5.6.

Commencement of the building works (particularly any vegetation clearance) 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 impact

No residual impacts anticipated.

5.9

OTHER S. 41 LIST HABITATS AND SPECIES

a) Potential impacts

Vegetation clearance will remove foraging habitat for hedgehogs, with potential for adjacent retained features to be damaged in the process.

During construction, hedgehogs could potentially fall into open trenches resulting in entrapment and possible injury and mortality of individuals due to falling in or becoming in contact with caustic substances such as fresh concrete.

Erection of ecological barriers (e.g., timber panel fencing) would affect foraging access for animals. In combination such impacts would be considered to result in a negative ecological effect at the local level.

Combined, the above impacts would result in negative effects upon local individuals.

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 (e.g., shrubs) or dismantling of rubble piles undertaken when temperatures are regularly below 6°C. Animals encountered at other times should be moved to suitable cover, e.g., the base of hedgerows and shrubs.

During construction, concrete should be poured early in the day or covered with ply boarding or membrane overnight to prevent animals coming into contact. Trenches should be covered overnight, or mammal ladders (large rough planks placed at shallow angles) placed to allow animals escape. Uncovered trenches must be checked daily and any animals encountered be relocated out of the works area.

Native species-rich hedgerows should be used if any new boundary features are required. If closeboard fencing is to be installed, then at least one hedgehog highway¹⁰ should be provided at either end of the fencing run.

c) Residual effects

Direct impacts upon hedgehog will be avoided.

5.10 COMPENSATION

No significant habitat losses are predicted which require compensation.

5.11 CUMULATIVE EFFECTS

The West Suffolk Council web site was searched on the 15 March 2023 for significant planning applications within 1km of the application site dating back by two years. Refused and withdrawn applications were not considered in relation to cumulative ecological effects.

The search returned a small number of applications for extensions/alterations to existing dwellings and commercial buildings. One application for a residential development including up to 2,500 dwellings exists to the northeast. Given the scheme will not introduce additional dwellings to the local area, no significant cumulative effects are expected.

5.12 ENHANCEMENT OPPORTUNITIES

Table 5.1 details a number of suggested enhancement measures which could be implemented to maximise biodiversity gains. A minimum of 2 of the 3 options should be implemented.

Table 5.1 Biodiversity enhancements

Feature	Enhancement suggestion
Birds	1. Integrated swift bricks ¹¹ (minimum of 5) could be erected on the north and/or east elevations of the new building, positioned just below the eaves. Wall-mounted boxes ¹² may be used if integrated boxes are unsuitable for the building construction. Speaker systems^{13, 14} must be installed as per recommended guidance.

¹⁰ <https://www.hedgehogstreet.org/help-hedgehogs/link-your-garden/>

¹¹ <https://www.nhbs.com/manthorpe-swift-brick>

¹² <https://www.swift-conservation.org/Nestboxes%26Attraction.htm>

¹³ E.g. <https://genesishnestboxes.ie/shop/genesis-swift-products/genesis-sound-systems/genesis-basic-sound-system/>

¹⁴ <https://www.swift-conservation.org/2016-08-23%20EquipmentListforusingtheMP3versionoftheSwiftCalls.pdf>

Feature	Enhancement suggestion
Bats	2. Two Eco Kent bat boxes and two integrated bat boxes could be mounted on the east and/or south elevations of the new building (Appendix A4).
Ornamental planting	<p>3. Ornamental planting could involve using nectar rich plants to benefit pollinators and associated predators (e.g., foraging bats and hedgehogs).</p> <p>Planting should include nectar rich climbers such as traveller's joy (<i>Clematis vitalba</i>) and honeysuckle (<i>Lonicera periclymenum</i>), which could be planted at 5ft intervals along fences, posts, or trellises.</p>

5.13

CONCLUSIONS

With the avoidance measures and enhancement strategies suggested, the scheme will minimise biodiversity impacts with opportunities for some enhancements in accordance with planning policy. To maximise potential biodiversity benefits, the measures proposed should be secured through detailed design and appropriate planning conditions, scheme specific and/or as per the British Standard (BS 42020:2013). Relevant planning conditions could include:

- A Biodiversity Enhancement Strategy to detail compensation and enhancement measures, to be reflected in the detailed landscaping proposals and site plans for the scheme; and
- BS 42020:2013 D.3.7 and D.3.8 to ensure mitigation and enhancement measures are successfully implemented.

6 References

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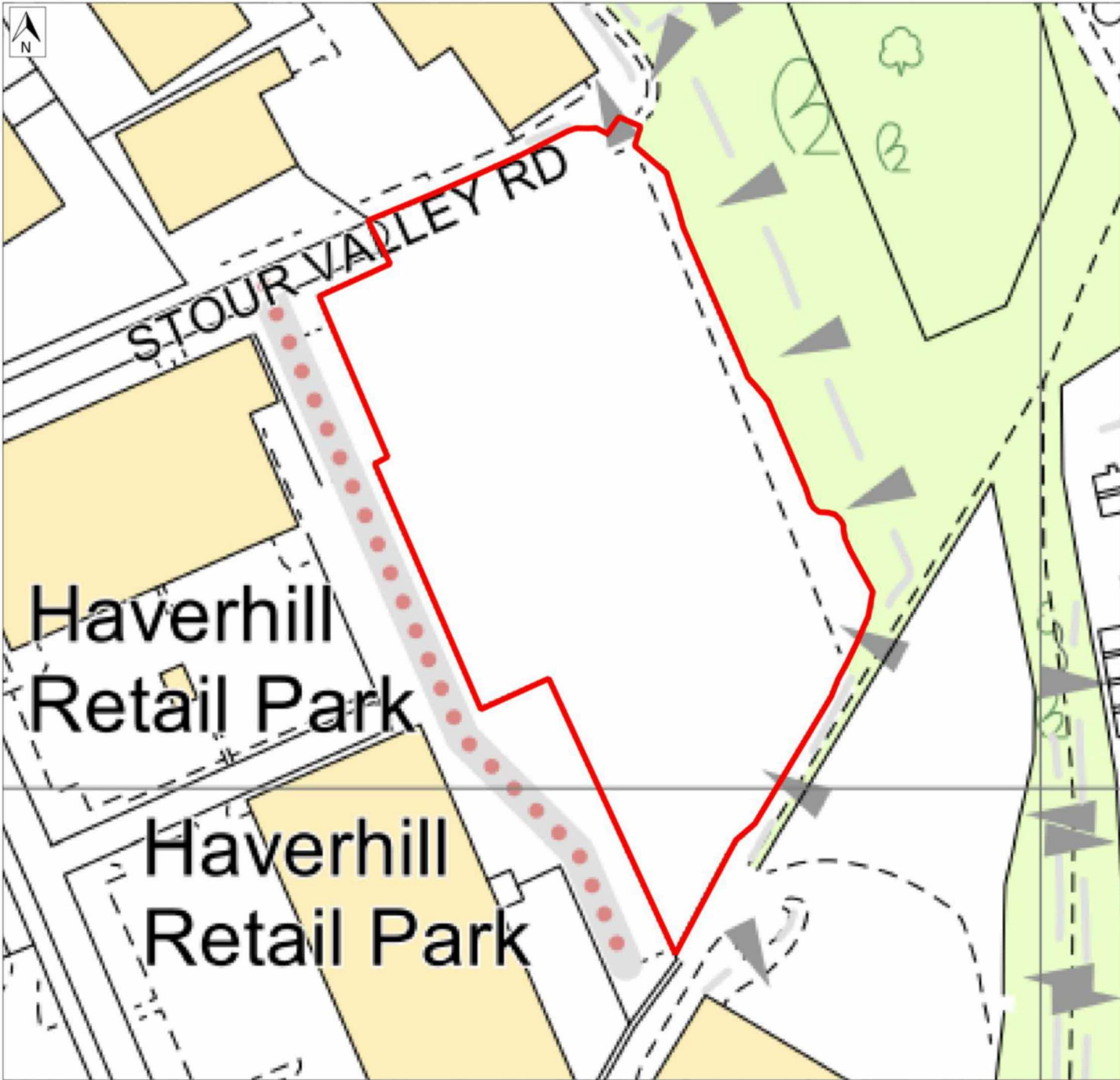
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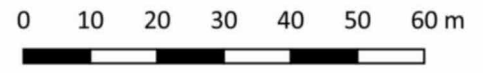
Waring, S., Essah, E., Gunnell, K. and Bonser, R. (2013) Double jeopardy: the potential for problems when bats interact with breathable roofing membranes in the United Kingdom. Architecture & Environment, 1 (1). Pp. 1-13.

Figures



Legend

 Application site boundary



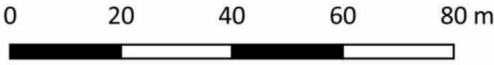
Project: Little Hamlet Green, Haverhill, Suffolk

Drawn:	Date:	Drawing Ref:
JB	22/03/22	LITTLEHAMLETGREEN/01

Figure 1 Site location plan



Legend



Project: Little Hamlet Green, Haverhill, Suffolk

Drawn:	Date:	Drawing Ref:
JB	22/03/23	LITTLEHAMLETGREEN/02

Figure 2 Habitats plan

Appendices

Appendix A1 Photos



Photo 1 View south from site entrance



Photo 2 Rough grassland and rubble immediately south of site entrance



Photo 3 Buddleia scrub along west boundary



Photo 4 Pallets stored to east of site



Photo 5 Ruderal vegetation and concrete blocks, with broadleaved hedgerow beyond site boundary



Photo 6 Additional ruderal vegetation behind pallets to east of site

Appendix A2 EclA criteria

A3.1 General criteria for geographic context/value

Designation	Example
International	<p>SPA, SAC and Ramsar sites and the features that they have been designated for.</p> <p>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.</p> <p>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.</p>
National	<p>SSSI or a discrete area that meets the selection criteria for designation.</p> <p>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.</p> <p>A sustainable population of priority species (listed under S. 41 of the NERC Act 2006).</p> <p>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.</p> <p>A sustainable population of uncommon or threatened Annex IV EPS species at a UK level.</p> <p>A nationally scarce species (occurs in 30-100 10km squares in the UK) that has its main UK population within the district.</p>
County	<p>A viable area of habitat identified in the county BAP.</p> <p>A County Wildlife Site.</p> <p>A sustainable population of common or non-threatened Annex IV EPS species at a UK level.</p> <p>A Nationally Scarce species that does not have its main population within the county.</p> <p>Any BAP species not included in the 'national' category above for which a county Action Plan exists.</p>
Local	<p>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).</p> <p>Other habitats and species not in the above categories but are considered to have some value at the district/borough level.</p>

Appendix A3 GCN poster

Great Crested Newt

If seen by any employee, works must cease immediately and an ecologist be contacted for advice

It is an offence to intentionally or recklessly disturb, injure or kill great crested newts

Further information can be found at www.arguk.org



Appendix A4 Bat boxes



