

Land Adjacent to 1 High Street, Leiston

Preliminary Ecological Appraisal Report

On Behalf of

Western House Developments

Version 1 | December 2022



Typical View of the Site, Currently Used for Construction Materials and Other Waste Storage, and Site Compound for the adjacent Development Site

Document Control

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This report does not purport to provide legal advice. This report provides baseline ecological conditions for the aforementioned site and is considered relevant for a period of no more than 12 months from the date of the Site Visit.

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Ecological Risk Assessment

The following Ecological Risk Assessment provides an infographic summary of the Preliminary Ecological Appraisal of Land Adjacent to 1 High Street, Leiston. This includes the requirements, including further surveys or mitigation, necessary to comply with relevant legislation and policy. Enhancement measures are also provided in line with the National Planning Policy Framework¹. An assessment of potential impacts has been made based on the proposals for the Site, which include the development of three new dwellings and the demolition and construction of a new commercial unit, with associated access, parking and garden areas.

This Eco RA is not intended as a substitute for reading the full report as set out in the proceeding pages.

		Risk Code Key
÷	High Risk	Ecological issue(s) requiring further survey work and/or mitigation prior to planning application
A	Moderate Risk	Ecological issue(s) requiring mitigation without requiring further survey
	Low Risk	No significant ecological issues identified. No further action required.

Risk Code	Factor	Comments and Actions Required	Timings
	Habitats	Habitat noted onsite included buildings, artificial unvegetated, unsealed surfaces, other developed land and modified grassland with scattered trees. Some Site clearance had already occurred prior to the Site visit that included felling of trees and soil movements on the southern section of the Site, associated with the use of this area as part of parking, storage of construction materials and other construction waste for an adjacent development. Habitats remaining onsite are classed as having negligible to low ecological value, with retained trees having moderate ecological value on their own right. Original habitats onsite would have corresponded to buildings and species-poor grassland with scattered trees. These would have had low to moderate value on their own right. The building will need to be demolished to create a new access road into the Site. Most of the remaining habitats onside have already been removed or to facilitate the development or have degraded. The scattered trees noted will be retained. Requirements: Tree planting of eight broad-leave native species or fruit trees; to replace the ones that were cleared at a ratio of 2:1; & Protect all retained trees and hedgerows with root protection measures in line	Design Stage Pre- and during
		with BS 5837:2012.	construction
		Enhancements: Species-rich native hedgerow planting along common green areas like the new access road	Design Stage



Risk Code	Factor	Comments and Actions Required	Timings
۸.	Statutory and Non-Statutory Designated Sites	The Site lies within the Suffolk Recreational Avoidance & Mitigation Strategy (RAMS) highlighting that an increase in residential properties within this area will see a cumulative impact in recreational disturbance on coastal Sites of international importance.	
		Requirements: Payment in the form of the Suffolk Coast RAMS tariff	As conditioned, or possibly included in submission
♣	Bats	The building onside is assessed as having negligible suitability for roosting bats, however, the oak tree located centrally on the eastern boundary was assess as having low suitability. A full assessment of the suitability of trees felled prior to the Site visit is not possible, however, a layout drawing for the Site have these recorded as two sycamore and an ash tree. These species of trees are prone to present features that are exploited by bats as roost features, and it is believed these trees would have possess low suitability for roosting bats.	
		The Site is located within an urban area is assess as having negligible to low suitability for foraging and commuting bats.	
		Tree felling already carried out could have potentially cause killing and injury of bats and it has potentially caused the loss of roost habitat. Any additional lighting above the level of existing levels may reduce the suitability of boundary habitats for roosting, foraging and commuting bats.	
		Requirements: Compensatory roost habitat for loss of potential roosts of the cleared trees. This could be in the form of three bat tubes to be installed following indications within this report; &	Design stage
		A bat friendly lighting scheme should be included ensuring that any bat boxes, boundary habitats, retained and newly planted trees remain unlit.	Design stage
		Enhancements: Three additional cavity or Kent style bat boxes, installed as per indications within this report.	Design stage
A	Birds	Scatter trees onsite are suitable for nesting birds. Clearance of the trees prior to the Site visit could have impact active nests as well as could have seen a loss in nesting habitat.	
		Requirements: Compensatory nesting habitat for loss of potential nesting habitat of the felled trees should be included. This could be in the form of three house sparrow terraces installed as per indications within this report.	Design stage
		Enhancements: Five swift boxes mounted as per indications within this report.	Design stage
	Priority Species (Fauna and	Hedgehogs may utilise the site for foraging and commuting.	
* <mark>*</mark> **	Flora)	Requirements: Any small mammal disturbed during construction should be allowed to flee of their own volition or moved to the Site boundary.	During construction
		The development should seek to minimise the use of impermeable boundary fencing. This can be negated by ensuring that all boundaries are marked with hedgerows or permeable fencing; failing this, any impermeable fencing installed should have 13x13 cm holes in the base to provide access.	Design stage
		Enhancements: A hedgehog house could be installed in a quiet area of the Site, such as near the retained oak.	Design stage



Risk Code	Factor	Comments and Actions Required	Timings
%	Great Crested Newts	Discussed but no further action required.	
	Reptiles		
	Badgers	Discussed but no further action required.	
	White-clawed Crayfish		
	Otter		
	Water Vole		
	Hazel Dormice		
	Invasive Species		



1 Introduction

1.1 Background

Practical Ecology Ltd were commissioned by Western House Developments to undertake a Preliminary Ecological Appraisal (PEA) of Land Adjacent to 1 High Street, Leiston, herein referred to as the 'Site'.

This report presents ecological information gathered during a desk study and an ecological walkover survey of the Site undertaken on 22nd November 2022.

The purpose of this report is to provide baseline ecological information pertaining to the Site, alongside the rationale for required further surveys and mitigation as deemed appropriate to ensure compliance with legislation and policy and recommend enhancement measures to achieve biodiversity net-gain in line with the NPPF.

Ecological baseline information for the Site is crucial to ensure potential effects of the development upon flora and fauna can be suitably managed. Furthermore, any constraints upon the proposed development of the Site, imposed by site ecology, can be assessed. Enhancement measures are presented which allow site biodiversity to be improved, whilst considering the legal requirements and best practice regarding protected species and/or habitats.

1.2 The Site

The Site is approximately 0.16 ha (central OS grid reference TM 44467 62721, postcode IP16 4EJ) and is located in Leiston, Suffolk, c.6 km east of Saxmundham. The Site is comprised of a building and an open area (a former garden) with scattered trees that is currently used for materials and other construction waste storage, and partially as a site compound/parking area for the adjacent development site. Surrounding the Site are commercial buildings and residential properties with gardens, and the town of Leiston. A Site boundary (red line) is provided in Figure 1 below.



Figure 1: Site Boundary



1.3 Proposed Development

The proposals include the development of three new dwellings and the demolition and construction of a new commercial unit, with associated access, parking and garden areas. A proposal plan has been included in Appendix 1 (Drawing number: 5760 – 0102 P06).

2 Methods of Assessment

2.1 Desk Study

A search for Statutory Sites of Nature Conservation Importance and Priority Habitats² within 1 km of the Site was undertaken using the Multi Agency Geographical Information for the Countryside (MAGIC)³.

Ordnance Survey maps and satellite imagery from online sources were consulted to identify the presence of any water bodies within 500 m of the Site. Historic OS maps and satellite imagery was also used to assess any changes to the onsite habitats.

Records of protected species, notable species, invasive species, and non-statutory sites from within 1 km of the Site were procured from Suffolk Biological Information Service⁴ as part of this desk-based study and are presented in this report. Records provided by the record centre that are more than ten years old are only reported on if they are deemed to still be relevant.

The relevant Local Biodiversity Action Plan, Suffolk Local BAP⁵, was consulted to determine whether species and habitats identified (by both the desk study and the field survey) on and around the Site are subject to specific action plans. The list of UK Biodiversity Action Plan (UK BAP) species⁶ was also consulted as this remains an important reference source, despite being succeeded by the UK Post-2010 Biodiversity Framework⁷.

2.2 Preliminary Ecological Appraisal Site Survey

A Preliminary Ecological Appraisal survey of the Site was undertaken on 22nd November 2022 by ecologist Ana Pino-Blanco BSc (Hons) MSc with over three years' experience in ecological consultancy (Natural England Bats Level 2: 2022-10568-CL18-BAT, and great crested newts Level 1 licence 2020-46807-CLS-CLS).

This survey assessed the value of onsite and adjacent habitats and their potential to support protected or notable species and habitats following the Guidelines for Preliminary Ecological Appraisal⁸ published by the Chartered Institute for Ecological and Environmental Management (CIEEM).

Habitats

Habitats were classified as per the criteria set out in the Handbook for The UK Habitat Classification⁹ with the prescribed habitat primary and relevant secondary habitat codes included. Habitats were checked against the definitions for Priority Habitats. Priority Habitats are those which are identified as a Habitat of Principal Importance in England under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006².

European Protected Species

Following the UK exit from the European Union (EU), species formerly protected under the Habitat Regulations are now considered to be protected under The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019¹⁰ and will continue to be referred to as European Protected Species (EPS). Further legislative details regarding protected species are included in Appendix 33.



Great Crested Newt (Triturus cristatus)

Great crested newts use both terrestrial and aquatic habitat within their lifecycle, with all habitat used being legally protected. The terrestrial and, if present, aquatic habitats onsite were assessed for their value and suitability for great crested newts. The proximity of ponds within 500 m and any habitat linking such ponds to the Site was also assessed as an important factor determining the likelihood of the species being present onsite. Any ponds present onsite or accessible during the survey were assessed using the Habitat Suitability Index (HSI) Assessment¹¹ where appropriate.

Bats

Any trees or buildings present onsite were assessed for their suitability for roosting bats using the protocol set out in Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd ed)¹². Where necessary this included the use of binoculars to allow for a ground level assessment to search for signs such as staining and/or droppings sometimes found around roost entrances. Internal inspections of buildings or loft voids were undertaken where possible, using ladders and crawling boards if appropriate. It is noted that a lack of evidence of roosting bats, such as presence of bats, droppings, or staining, does not correlate to a lack or presence or a lack of suitability.

Habitats were assessed for their suitability for foraging and commuting bats, as set out in Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd ed)¹².

Hazel Dormice (Muscardinus avellanarius)

The Dormouse Conservation Handbook (2nd Ed.)¹³ provides a level of guidance on assessing a site where the status of hazel dormice is unknown. This assessment is made based upon historical records as well as the habitat and plant species present on and adjacent to the Site. As hazel dormice have a large range, a lack of evidence does not correlate to a lack of presence.

Otter (Lutra lutra) | White Clawed Crayfish (Austropotamobius pallipes)

Suitable waterbodies (if present) on or adjacent to the Site were assessed for their suitability to support these species, where access was possible. Any incidental evidence of the presence of these species on site (e.g. holts, spraints, foraging signs) was also recorded.

Other Species

Protected under the Wildlife and Countryside Act 1981¹⁴ or further specific legislation, further detailed within Appendix 3.

Birds

Habitats on site were assessed for their potential to support nesting birds as well as important numbers of breeding and wintering birds.

Reptiles

Terrestrial habitats on site were assessed for their potential to support common reptile species, based on factors including vegetation structure and composition, and the availability of shelter and foraging resources. All UK reptiles are protected, with rare species (smooth snake (*Coronella austriaca*) and sand lizard (*Lacerta agilis*) also given EPS status.



Water Vole (Arvicola amphibius)

Suitable waterbodies (if present) on or adjacent to the Site were assessed for their suitability to support these species, where access was possible. Any incidental evidence of the presence of these species on site (e.g. burrows, latrines, foraging signs) was also recorded.

Badger (Meles meles)

Habitats on site were assessed for their suitability for badger foraging and sett building. Any incidental evidence of the presence of badgers on site (e.g. setts, paths, prints, foraging signs, and latrines) was recorded.

Priority Species

Habitats on site were assessed for their suitability for Priority Species. Priority Species are those listed as of Principal Importance in England under Section 41 of the NERC Act 2006¹⁵, those listed as Local Priority Species, or those that feature on the relevant Local Biodiversity Action Plan. Any incidental evidence of the presence of these species on site was also recorded. The presence of rare or notable plant species, such as red data list species¹⁶, was also noted.

Invasive Species

A search was made for evidence of the presence of invasive plant species listed in Schedule 9 of the Wildlife and Countryside Act 1981 as they are subject to strict legal control.

2.3 Enhancements for Biodiversity Net Gain

In accordance with policy set out in the National Planning Policy Framework (NPPF)¹ all new developments are required to deliver a net gain in biodiversity. Specifically, NPPF notes an environmental objective to protect and enhance the natural environment and to improve biodiversity (*S2. p. 8c*) and that all development should be '...providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures' (*S15. p.174d*).

This report therefore seeks to provide suitable Site-specific habitat and species enhancements which will provide the biodiversity net gain required as part of the NPPF.

2.4 Limitations to Survey

At the time of the survey visit, some clearance works on Site had already started, including clearance of some small trees noted on the layout plan (drawing n.: 5760-101-P02) and visible on historical satellite imagery, earth movements and the creation of a spoil mound, and the storing of construction materials and other construction waste for the adjacent development, which limited the species recorded onsite.

Due to the seasonal behaviour of animals and the seasonal growth patterns of plants, ecological surveys may be limited by the time of year in which they are undertaken. Some plant species are not readily identifiable in November as distinguishing flowers and fruits may not be visible. Many animals in the UK have variable detectability throughout the year due to seasonal behaviour, including hibernation and migration. Therefore, this survey may not provide a complete list of the plants and animals present, or which may utilise the Site throughout the year.

As part of standard practice, a data search has been undertaken from the local biological record centre. This is not considered to be a complete list of species present and is better considered to be a list of species recorded,



with many species known to be under recorded.

However, these limitations are not considered to have affected the accuracy of the assessment or the recommendations provided in this report and, where considered necessary, recommendations for further survey have been made to overcome these limitations.

This report presents conditions and recommendations for the Site based on the state of the Site during the survey visit. Any changes to the Site prior to development, including changes in the management of the Site habitats will therefore potentially invalidate this report and its recommendations.

3 Existing Conditions and Assessment of Effects

3.1 Summary

The following sites, species or ecological features have the potential to be affected by the development, or their presence has been detected during the desk study or data search. As such, they are discussed further in this report and action points, mitigation and compensation measures are recommended as necessary:

- Habitats
- Statutory and Non-statutory Sites of Nature Conservation Value
- Great Crested Newts
- Bats
- Birds
- Reptiles
- Priority & Notable Species (Fauna and Flora)

The following species are very unlikely to occur on the Site, in adjacent habitats either due to a lack of suitable habitat or as they have localised distributions in the UK. As such, the proposed development does not pose a threat to the following species and they are not discussed further as no further survey or mitigation is considered necessary:

- Badgers
- White-Clawed Crayfish
- Hazel Dormice
- Water Vole
- Otter
- Invasive Species

Site photos are included in Appendix 2. Refer to Appendix 3 for details of the legislation and guidance relevant to each protected species.



3.2 Site Description and Habitats

3.2.1 Desk Study

The desk study returned the following records of parcels of notable habitats within 1 km of the Site:

Habitat	Areas	Parcels	Closest to Site
Deciduous Woodland (Priority Habitat Inventory)	5	9	375 m
Woodpasture and Parkland (BAP Priority Habitat)	1	1	560 m
Traditional Orchand (Priority Habitat Inventory)	1	1	800 m

Table 1: Notable Habitats within 1 km of the Site

The habitats listed in Table 1 bare no similarity to those occurring within the Site, detailed below.

3.2.2 Field Survey

Habitats noted on the Site were assessed using the Handbook for The UK Habitat Classification¹⁷ and included buildings; artificial unvegetated, unsealed surfaces; other developed land, and modified grassland with scattered trees. Primary and secondary habitat codes are included for ease of reference.

Onsite Habitats

Buildings; Neglected, Commercial building (u1b5; 77, 90)

The south-eastern section of the Site, that connects the north garden area with the road, is currently occupied by a commercial building of brick construction and a flat roof. Towards the north of this building, the roof timbers have rotted and the roof has collapsed. This has no ecological value on its own right.

Artificial unvegetated, unsealed surfaces, Ruderal/ephemeral, Scattered trees, Felled (u1c; 17, 11, 77)

The southern section of the Site is located adjacent to another plot of land that is currently under development. This area of the Site is cleared of vegetation as it is used for vehicle parking, skip, material and other construction waste storage and generally as a site compound. Towards the north, some ruderal/ ephemeral vegetation has started to grow and is dominated by nettle (*Urtica dioica*) and greater plantain (*Plantago major*) with some spear thistle (*Cirsium vulgare*), purple dead-nettle (*Lamium purpureum*) and creeping buttercup (*Ranunculus repens*). This area also includes circa four stump remains which used to be small trees. A mound of piled earth is located in this area, centrally to the Site. These habitats are currently of negligible ecological value however, before clearance, these would have been more similar to the habitats described in the following section and would have had low ecological value for the grassland and moderate ecological value for the scattered trees. Additionally, a dry pond/ pond basin was noted within the layout drawing for the Site (drawing n.: 5760-101-P02). This dry pond/ pond basin is currently filled with soil and was not possible to distinguish from adjacent areas.

Modified grassland; Ruderal/ ephemeral, Scattered Trees, Garden (g4; 11, 17, 78, 230)

The northern section of the garden remains the least disturbed and consist of a timber summerhouse and some formally paved areas as paths with an area of grassland with scattered trees. The modified grassland is dominated by cocksfoot (*Dactylis glomerata*), and perennial ryegrass (*Lolium perenne*), with a species of fescue (*Festuca sp.*) also noted. Some ruderal/ ephemeral growth was present with forbs including creeping buttercup



(*Rannunculus repens*), spear thistle (*Cirsium vulgare*), white clover (*Trifolium repens*), nettle (*Urtica dioica*) and ribwort plantain (*Plantago lanceolate*). A mature oak tree (*Quercus robur*) and two holly trees (*Ilex aquifolia*) are present onsite, centrally on the eastern line boundary. A sycamore (*Acer pseudoplatanus*) is located near the northwest corner and a cherry tree (*Prunus sp.*) was noted near the northeast corner of the Site. These habitats are of low ecological value (grassland) and moderate ecological value (trees) in their own right.

Surrounding Habitats

Surrounding the Site were:

- Built-up areas and gardens(u1) as part of the town of Leiston.
- Sealed Surface (u1b) in the form of a road to the south of the commercial building onsite.

3.2.3 Assessment of Effects

The building onsite will need to be demolished to create a new access road into the Site. Most of the remaining habitats onsite have already been removed to facilitate the development or have degraded. The scattered trees noted during the Site visit will be retained.

The majority of the habitats to be removed are common and ubiquitous, or have no ecological value in their own right, with the exception of the felled scattered trees. This is discussed further in the following species-specific sections of this report.

3.2.4 Requirements

The following will ensure there is no net loss of biodiversity.

Design Stage

• Tree planting of eight broad-leaved native species or fruit trees such as apple (*Malus domesticus* or *M. sylvestris*), plum (*Prunus domestica*) or pear (*Pyrus domesticus*) to replace the trees that were cleared at a ratio of 2:1. Techniques such as espalier fruit trees against a fence or wall can be used.

Pre-Construction/ Construction Stage

• Root and tree protection measures (in line with the British Standard for trees in relation to construction BS 5837:2012) must be installed in the pre-construction phase and maintained throughout the construction phase.

3.2.5 Enhancements for Biodiversity Net Gain

Design Stage

• Species-rich native hedgerow planting along common green areas such as the new access road, with at least six species including common hawthorn (*Crataegeus monogyna*) and at least five other species potentially including any of the following; hazel (*Corylus avellana*), blackthorn (*Prunus spinosa*), field maple (*Acer campestre*), holly (*Ilex aquifolium*), dog rose (*Rosa canina*), guelder rose (*Viburnum opulus*), hornbeam (*Carpinus betulus*), and buckthorn (*Rhamnus cathartica*).



3.3 Statutory and non-statutory Sites of Nature Conservation Value

3.3.1 Desk Study

The desk study returned no records for statutory or non-statutory sites within 1 km of the Site. The Site lies in an Impact Risk Zone (IRZ), which are used by local authorities (LPA) to assess whether developments are likely to impact statutory sites, including internationally designated sites¹⁸ as well as Sites of Special Scientific Interest (SSSIs). Information regarding the relevant Statutory Sites, the Sandlings SPA; Alde-Ore Estuary SPA/Ramsar; Minsmere-Walberswick SPA/SAC/Ramsar and Orfordness-Shingle Street SAC is noted in Table 2.

Name	Designation	Distance	Direction	Notable Features
			IRZ – Sta	tutory Sites
Sizewell Marshes	SSSI	1.2 km	NE	Important for their large area of lowland, unimproved wet meadows which support outstanding assemblages of invertebrates and breeding birds.
Sandlings	Specieal Protection Area (SPA), Site of Specieal Scientific Interest (SSSI)	1.7 km	SE	Form by all or parts of laxhall Heath Site of Special Scientific Interest (SSSI), Leiston - Aldeburgh SSSI, Sandlings Forest SSSI, Snape Warren SSSI, Sutton & Hollesley Heaths SSSI and Tunstall Common SSSI, the Sandlings SPA lies near the Suffolk Coast between Deben Estuary and Leiston and it has European ornithological importance
Minsmere- Walberswick	Special Area of Conservation (SAC), SSSI. Ramsar, SPA	3.4 km	NE	A mosaic of coastal habitats consisting of shingle beaches, dunes, estuarine mudflats, grazing marshes, lagoons, reedbeds, and heathland. The marshes support the largest continuous stand of reedbed in England and Wales. The site supports an outstanding diversity of breeding birds
Alde-Ore Estuary	SPA, Ramsar, SSSI	4.5 km	S	On the east coast of Suffolk between Aldeburgh and Bawdsey it comprises a stuary complex of the rivers Alde, Butley and Ore with a variety of habitas important for breeding and wintering birds.

Table 2: Statutory and non-statutory Site Descriptions

3.3.2 Assessment of Effects

The Site does not contain any habitats of similar character or value to those found within the statutory sites. Givin the lack of similarity and the distance that separates them from Site, no negative direct impacts are anticipated.

While the Site lies in the impact risk zone for the sites mentioned in Table 2, it does not meet the criteria for the LPA to consult with Natural England or suggest that they could be impacted by the development proposals.

The information on the IRZ available from MAGIC Map also shows that the Site lies in an area within the Suffolk Recreational Avoidance & Mitigation Strategy (RAMS) highlighting that an increase in residential properties within this area will see a cumulative impact in recreational disturbance on coastal Sites of international importance; the SAC and SPA noted in Table 2.



3.3.3 Requirements

Payment in the form of the Suffolk Coast RAMS tariff (set at £321.22 per dwelling within Zone B) to be paid upfront or via a legal agreement that will secure payment before, or upon commencement of the development. This will mitigate against the increased recreational disturbance which will be created by the additional dwellings.

3.4 Great Crested Newts

3.4.1 Desk Study

The desk study returned three records of great crested newts within 1 km of the Site. These records were dated between 2011 and 2021. The closest record was 800 m north of the Site.

All ponds identified are outside of a 500 m buffer from the proposed development.

3.4.2 Field Survey

No suitable breeding habitat is present onsite. Refugia exists onsite in the form of piled up materials, old low brick walls and fallen bricks, with grassland habitat providing low suitability foraging habitat. A dried pond/ pond basin is noted within the layout drawing for the Site (drawing n.: 5760-101-P02). This dry pond/ pond basin is currently filled with soil and was not possible to distinguish from adjacent areas.

3.4.3 Assessment of Effects

Research from English Nature (now Natural England) has shown great crested newts to primarily remain within 100 m of breeding ponds and are rarely present outside 250 m from a breeding pond without suitable connecting habitat and reduced habitat within 250 m of a pond¹⁹. All ponds are located in the outskirts of Leiston, with suitable foraging habitat around them and, although small areas of low suitability foraging and refugia exist within the Site, and a pond may have existed in the past, it's considered highly unlikely that great crested newts are present or would have been present onsite given its isolation from surrounding ponds.

3.4.4 Requirements

No further recommendations are made with regards to this species.

3.5 Bats

3.5.1 Desk Study

The following species of bat were noted within the 1 km data search occurring within last 10 years:

- Barbastelle (Barbastella barbastellus)
- Natterers bat (Myotis nattereri)
- Noctule (*Nyctalus noctule*)
- Leisler's bat (Nyctalus leisleri)
- Pipistrelle species (Pipistrellus sp.)
- Common pipistrelle (Pipistrellus pipistrellus)
- Brown long-eared (Plecotus auritus)

No records of roosts, granted mitigation licenses, or relevant records pertaining to the Site were returned.



3.5.2 Field Survey

Roosting Habitat

Buildings

A commercial building, of brick construction with a flat felt roof. The roof is collapsing at the north of the building leaving the interior of the building exposed to the elements. No potential roost features (PRFs) were noted internal or externally and the building is assess as having negligible suitability for roosting bats.

Trees

The oak tree on the Site, located centrally towards the eastern boundary is noted to have lifting bark. This feature, located accessible from the ground, was inspected and noted to have *low suitability*¹² for roosting bats. Additionally, the oak is covered in ivy that could be obscuring any potential roost features at a higher level.

Trees noted within the layout drawing for the Site (drawing n.: 5760-101-P02) that were felled prior to the Site visit are recorded as sycamore (*Acer pseudoplatanus*) and ash (*Fraxinus excelsior*). No full assessment of the suitability of these trees could be undertaken but these two species are prone to forming wounds or have other types of decay, even on semi-mature trees, that are known to be exploited by bats as potential roost features²⁰. These are assessed as low suitability, based on the highest level of suitability it is believed these trees would have possessed.

Foraging and Commuting

The Site is located within the centre of the urban town of Leiston. Due to clearance of the Site, it currently has low to negligible value for foraging and commuting bats. Prior to the clearance of the Site, the grassland and scattered trees onsite would have provided low value foraging and commuting habitat and provided a 'stepping stone' habitat for urban species crossing the urban town centre. Therefore, the Site is assessed on the value pre-clearance and was considered to have low suitability for foraging and commuting bats.

3.5.3 Assessment of Effects

Tree felling in preparation for the Site development carried out before the survey visit could have potentially caused the death or injury of bats and it has potentially caused the loss of low suitability roost habitat. Any tree felling or tree surgery works to the oak tree still present onsite could damage or destroy bat roosts or kill, injure, or disturb bats.

Any additional lighting above the level of existing lighting levels may reduce the suitability of boundary habitats for roosting, foraging, and commuting bats.

3.5.4 Requirements

Design Stage

Compensatory roost habitat for the loss of potential roosts of the cleared trees. This should be in the form of three bat tubes to be installed one per new dwelling facing south, southeast, or southwest and integrated into the external walls.

Any lighting schemes to be installed during and post-construction must be designed to prevent unnecessary light spill onto adjacent gardens, retained or new planted trees and any bat boxes installed as part of the development. The following guidance²¹²² must be followed:



- Minimise light spill by eliminating any bare bulbs and upward pointing light fixtures. The spread of light must be kept near to or below the horizontal plane, by using as steep a downward angle as possible and/or shield hood. Flat, cut-off lanterns are best.
- Luminaires must feature peak wavelengths higher than 550 nm to avoid the component of light most disturbing to bats²³.
- A warm white spectrum (ideally <2700 Kelvin) must be adopted to reduce blue light component.
- All luminaires must lack UV elements when manufactured. Metal halide, fluorescent sources must not be used.
- Limiting the height of lighting columns to eight metres and increase the spacing of lighting columns²⁴ will reduce the spill of light into unwanted areas such as the aforementioned habitats.
- Artificial lighting proposals must not directly illuminate boundary habitats, retained or newly planted trees, or bat box locations.

With these lighting measures implemented, it is considered that any potential adverse effects from lighting upon bats will be minimised.

3.5.5 Enhancements for Biodiversity Net Gain

The following are considered to be suitable enhancements for bats:

• Three additional cavity or Kent style bat boxes, installed on retained trees, at least 4 m high and facing south, southeast, or southwest with a clear line of flight.

3.6 Birds

3.6.1 Desk Study

Records of species returned by the data search included a range of species typical of the landscape surrounding the Site and included notable²⁵ species listed in Table 4, below.

Species		Protection				
Scientific Name	Common Name	Schedule 1 WCA	BoCC Status	National Priority	Local Priority	
Apus apus	Swift		Red	\checkmark	\checkmark	
Passer domesticus	House Sparrow		Red	\checkmark	\checkmark	
Sturnus vulgaris	Starling		Red	\checkmark	\checkmark	
Turdus philomenus	Song Thrush		Red	\checkmark	\checkmark	
Delichon urbicum	House Martin		Red		\checkmark	
Prunella modularis	Dunnock		Amber	\checkmark	\checkmark	

Table 4: Notable Birds within Data Search



3.6.2 Field Survey

The field survey noted the following species on the Site, seen in Table 5:

Species				Protection			
Scientific Name	Common Name	Breeding?	Schedule 1 WCA	BoCC Status	National Priority	Local Priority	
Columba palumbus	Woodpigeon	Possible		Amber			
Erithacus rubecula	Robin	Possible		Green			

Table 5: Birds Recorded Onsite

The retained trees onsite have some suitability for nesting birds including common passerine birds. Trees felled before the survey visit would have had similar suitability. No bird nests were observed on the Site during the Site visit.

3.6.3 Assessment of Effects

The tree felling prior to the survey visit could have seen the damage or destruction of active nests if clearance was undertaken during the nesting season, and it has seen a reduction in suitable nesting habitat for birds.

3.6.4 Requirements

Trees present onsite are marked for retention. Should plans changed and trees to be removed, then this report will need to be updated as the development might result in the loss of nesting habitat and could see the damage or destruction of active nests if clearance is undertaken during the nesting season.

Compensatory nesting habitat for loss of potential nesting habitat of the felled trees should be included. This could be in the form of three house sparrow terraces mounted on a north or eastern aspect on the new dwellings, at least 2-3 m high and with a clear line of flight.

3.6.5 Enhancements for Biodiversity Net Gain

The following enhancements are considered suitable:

• A total of five swift boxes, mounted in one group of five on one of the new buildings, at least 5 m high and away from full sun, facing north or east. The boxes should have a free line of flight. To increase uptake time, swift song can be played from nearby the boxes during July to encourage swifts to the area. Further information on this is available from Save our Swifts²⁶.

3.7 Reptiles

3.7.1 Desk Study

The desk study returned three records for slow worm (*Anguis fragilis*), five records for grass snake (*Natrix helvetica*), nine records for common lizard (*Zootoca vivipara*) and one record for adder (*Vipera verus*) within 1 km of the Site. Most of these records correspond to the allotments located 350 m east of the Site. The most recent records are dated 2017.

3.7.2 Field Survey

The Site has negligible suitability for reptiles in its current state. Prior to disturbance introduced by the current



use of the Site, it could have had negligible to low suitability, with the grassland providing low suitability foraging habitat and low brick walls and piles of bricks could have served as potential refugia for reptiles.

3.7.3 Assessment of Effects

Although low suitability habitat may have existed, the location of the Site within the urban centre of Leiston and the presence of better-quality habitats within the allotments or outside the town makes it unlikely that reptiles utilise the Site for foraging or sheltering, or that they could be transiently presents. The development is therefore considered unlikely to pose a risk to individual common reptiles or any reptile population within the wider area.

3.7.4 Requirements

No further recommendations.

3.8 **Priority & Notable Species**

3.8.1 Desk Study

The desk study returned 23 records for hedgehog (Erinaceus europaeus) within 1 km of the Site.

The nearest record for hedgehog was 40 m south and was dated 2014. Over 50% of the records were located within 200 m of the Site

3.8.2 Field Survey

The Site in its current state has negligible suitability for hedgehogs as there is no suitable sheltering habitat and the grassland is reduced to a small section to the north of the Site, however they could be transiently present onsite.

3.8.3 Assessment of Effects

The development has potential to cause injury or death to small mammals, including hedgehog, disturbed during Site clearance. However, the development is unlikely to cause any impacts to the population of any notable or priority species.

3.8.4 Requirements

Clearance of the Site should be in conjunction with any other recommendations.

Any small mammal disturbed during construction should be allowed to flee of their own volition or relocated to the Site boundary.

The development should seek to minimise the use of impermeable boundary fencing. This can be negated by ensuring that all boundaries are marked with hedgerows or permeable fencing; failing this, any impermeable fencing installed should have 13x13cm holes in the base to provide access.

3.8.5 Enhancements for Biodiversity Net Gain

A hedgehog house could be installed in a quiet area of the Site, such as near the retained oak.



4 Enhancements for Biodiversity Net Gain Summary

As per the National Planning Policy Framework¹ all new developments are required to deliver a net gain in biodiversity. In order to achieve this, the mitigation measures described in the preceding sections as well as the biodiversity enhancements should be implemented.

A brief summary of the recommended biodiversity enhancements for the Site is detailed in Table 6, below. For more detail on these enhancements, including recommended specifications, please refer to the species-specific sections of this report. It is considered that these measures, undertaken in conjunction with the Requirements detailed within this report, will ensure that the development achieves a biodiversity net gain.

Group or Habitat	Enhancement
Habitats	Species-rich native hedgerow planting along common green areas such as the new access road
Bats	Three additional cavity or Kent style bat boxes, installed as per indications within this report
Birds	Five swift boxes mounted as per indications within this report
Priority Species (Fauna and Flora)	A hedgehog house could be installed in a quiet area of the Site, such as near the retained oak.

Table 6: Summary of Additional Biodiversity Enhancement Measures
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5 References

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Appendix 2: Site Photographs



Photo 1: Area of unsealed surfaces used as parking



Photo 2: area use as 'site compound' for adjacent development





Photo 3: Area with disturbed ground with some ruderal/ ephemeral growth

Photo 4: Ruder/ ephemeral growth around other construction store materials and waste









Photo 7: Timber summerhouse and removed soil covering the area identified as dry pond/ pond basin.



Photo 8: Earth mound with ruderal/ ephemeral growth



Photo 9: Small area with modified grassland.



Photo 10: Low brick walls with lose bricks within the garden area.



Photo 11: Commercial building onsite



Photo 12: Building interior



Appendix 3: Legislation

The following sections outline the legislation protecting each species or group of species where appropriate which have been considered as part of the preceding report. Important notes:

• Practical Ecology Ltd's reports do **not** purport legal advice.

• The outline of legislation provided is not comprehensive and the original texts of the relevant legislation must be referred to for a full list of offences.

European Protected Species

Overview

The Bern Convention (The Convention on the Conservation of European Wildlife and Natural Habitats) was adopted in 1979. To implement the agreement, the European Community adopted the EC Habitats Directive.

The EC Habitats Directive has been written into UK law in the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2017 (as amended). The Conservation of Habitats and Species Regulations 2017 (as amended) provides safeguards for European Protected Sites and Species (as listed in the Habitats Directive). This has recently been amended by the Conservation of Habitats and Species Regulations (amendments) (EU Exit) (2019) which continue the same provision for European protected species, licensing requirements and protected areas after the UK's exist from the European Union. In addition, the Countryside and Rights of Way Act 2000 strengthened the wildlife legislation in the UK. In relation to development, a person commits an offence regarding a species protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2017 (as amended) if they:

- Deliberately capture, injure or kill an EPS;
- Deliberately or recklessly disturb wild animals of any such species in such a way as to be likely to significantly affect;
 - The ability of any significant group of animals to survive, breed or rear of nurture their young;
 - \circ ~ The local distribution or abundance of that species.
- Damages or destroys a breeding site or resting place (even if unintentional or when the animal is not present);
- Intentionally or recklessly obstructs access to a structure or place used for protection or shelter; and
- This applies regardless of the life stage (i.e. eggs, young, adult).

The following sections outline the offences that can be committed against each species or group of species which are protected by European law and tranches of UK law which strengthen that protection.

Great Crested Newts (Triturus cristatus)

Great crested newts and their breeding sites (ponds) or resting places are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2017 (as amended) and Section 9 of the Wildlife and Countryside Act 1981.

It is an offence to:

- intentionally or recklessly kill, injure or handle a great crested newt;
- to possess a great crested newt (whether live or dead);
- disturb a great crested newt this includes in particular:
 - Any disturbance or obstruction which is likely to impair their ability to survive, breed or reproduce, or to rear or nurture their young; or
 - Any disturbance or obstruction that impairs their ability to hibernate or affecting their local distribution and abundance;
- sell or offer a great crested newt for sale without a licence.

It is also an offence to intentionally or recklessly damage, destroy or obstruct access to any place used by great crested newts for shelter, whether they are present or not.



Bats

All species of bat and their breeding sites or resting places (roosts) are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2017 (as amended) and Section 9 of the Wildlife and Countryside Act 1981. It is an offence to:

- intentionally kill, injure or handle a bat;
- to possess a bat (whether live or dead);
- disturb a roosting bat; or
- sell or offer a bat for sale without a licence.

It is also an offence to intentionally or recklessly damage, destroy or obstruct access to any place used by bats for shelter, whether they are present or not.

A roost is defined as 'any structure or place which (a bat) uses for shelter or protection'. As bats tend to reuse the same roosts, legal opinion is that a roost is protected whether or not bats are present at the time of the survey.

Otter (Lutra lutra)

Otters and their breeding sites (holts) or resting places are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2017 (as amended) and Section 9 of the Wildlife and Countryside Act 1981. It is an offence to:

- Deliberately or recklessly capture, kill, disturb or injure otters;
- Deliberately or recklessly damage or destroy a breeding or resting place;
- Deliberately or recklessly obstruct access to their resting or sheltering places; or
- possess, sell, control or transport live or dead otters, or parts of otters.

Common dormouse (Muscardinus avellanarius)

Common dormice and their breeding sites or resting places are protected under Regulation 41 of The Conservation of Habitats and Species Regulations 2017 (as amended) and Section 9 of the Wildlife and Countryside Act 1981. It is an offence to:

- Deliberately or recklessly capture, kill, disturb or injure common dormice;
- Deliberately or recklessly damage or destroy a breeding or resting place;
- Deliberately or recklessly disturb a common dormouse whilst in structure or place of shelter or protection;
- Deliberately or recklessly obstruct access to their resting or sheltering places; or
- possess, sell, control or transport live or dead common dormice, or parts of common dormice.

Other Species

Badgers (Meles meles)

Badgers are fully protected in the UK by the Protection of Badgers Act, 1992 and by Schedule 6 of the Wildlife and Countryside Act 1981 as amended. The Protection of Badgers Act 1992 was introduced in recognition of the additional threats that badgers face from illegal badger digging and baiting. Under the Act, it is an offence *inter alia* to:

- Wilfully kill, injure or take a badger, or to attempt to do so;
- Cruelly ill-treat a badger; or
- Intentionally or recklessly interfere with a badger sett by;
 - damaging a sett or any part of one;
 - destroying a sett;
 - obstructing access to or any entrance of a sett;
 - causing a dog to enter a sett; or
 - disturbing a badger when it is occupying a sett.

The purpose of this legislation is to ensure that badgers are humanely treated.



Water Vole (Arvicola terrestris)

Water vole and their breeding sites or resting places (burrows) are protected under Schedule 5 of the Wildlife and Countryside Act 1981. It is an offence to:

- Deliberately or recklessly capture, kill, disturb or injure water voles;
- Deliberately or recklessly damage or destroy a breeding or resting place;
- Deliberately or recklessly disturb a water vole whilst in structure or place of shelter or protection;
- Deliberately or recklessly obstruct access to their resting or sheltering places; or
- Possess, sell, control or transport live or dead water voles, or parts of water voles.

NB: In the case of water voles, a place of shelter or breeding or resting place is only likely to constitute an 'active' burrow.

Reptiles

All six of the UK's reptile species are protected under the Wildlife and Countryside Act 1981 (as amended). Of the more common reptiles, it is illegal to intentionally kill or injure common lizard (*Zootoca vivipara*), slow worm (*Anguis fragilis*), an adder (*Vipera berus*) and grass snake (*Natrix helvetica*).

White-Clawed Crayfish (Austropotomobius pallipes)

The Wildlife and Countryside Act 1981 (as amended) makes it an offence to:

- Take a white-clawed crayfish from the wild;
- Sell or offer the sale of a whole or any part of a white-clawed crayfish.

This applies to all life stages.

Birds

The Wildlife and Countryside Act 1981 (as amended) makes it an offence to:

- intentionally kill, injure or take any wild bird;
- intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built;
- intentionally take or destroy the nest or eggs of any wild bird. [Special penalties are liable for these offences involving birds listed on **Schedule 1**].

Birds listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) have an additional level of protection. With regards to these species, it is an offence to deliberately or recklessly:

- disturb them whilst they are nesting, building a nest, in or near a nest that contains their young;
- disturb their dependent young.

Invasive Species

Certain species of plants and animals that do not naturally occur in Great Britain have become established in the wild and represent a threat to the natural fauna and flora. Section 14 of the Wildlife & Countryside Act 1981 (as amended) prohibits the release of any animal species that are 'not ordinarily resident or is not a regular visitor to Great Britain in a wild state'. Therefore, under Section 14 it is an offence to allow the establishment of plant species listed on Schedule 9 Part 2 in the wild.

Wild Mammals

Mammal species not of primary conservation concern do receive protection from unnecessary suffering through the Wild Mammals Protection Act (1996).

