



Colchester Institute, Clacton-on-Sea

Preliminary Ecological Appraisal
Report

On Behalf of

Barefoot & Gilles

Version 1 | December 2023



North western side of the Site.

Document Control

Version	Date	Produced by	Reviewed by	Notes
Version 1	22 nd December 2023	Amber Stringer MSc Assistant Ecologist	Heather Matthews, M:CIEEM	

Practical Ecology Ltd
 The Roost
 Bungay Road
 Scole
 South Norfolk
 IP21 4DT



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.

This report should not be replicated or reproduced, and its contents should not be used in other formats unless expressly agreed with Practical Ecology Ltd.




Contents


Document Control	2
Ecological Risk Assessment	4
1 Introduction	8
1.1 Background	8
1.2 The Site	8
1.3 Proposed Development	9
2 Methods of Assessment	9
2.1 Desk Study	9
2.2 Preliminary Ecological Appraisal Site Survey	9
2.3 Biodiversity Enhancements	11
2.4 Limitations to Survey	11
3 Existing Conditions and Assessment of Effects	12
3.1 Summary	12
3.2 Site Description and Habitats	13
3.3 Statutory and Non-statutory Sites of Nature Conservation Value	15
3.4 Great Crested Newts	17
3.5 Bats	18
3.6 Birds	21
3.7 Reptiles	23
3.8 Priority & Notable Species	23
3.9 Invasive Species	25
4 Biodiversity Enhancements Summary	27
5 References	28
Appendix 1: Proposed Site Plan	29
Appendix 2: Site Photographs	30
Appendix 3: Legislation	34
European Protected Species	34
Other Species	35




Ecological Risk Assessment



The following Ecological Risk Assessment provides an infographic summary of the Preliminary Ecological Appraisal of Colchester Institute, Clacton-on-Sea. 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 demolition of the existing building, car park, pathways, and the clearance of scrub, grassland, and trees to facilitate the development of a new building of flats, associated car park, access road, and private gardens. A plan of proposals is provided in Appendix 1: 2248 SK 10-001.

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

Risk Code Key		
	High Risk	Ecological issue(s) requiring further survey work and/or mitigation prior to determination.
	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
	Bats	<p>The desk study returned records of bats within 1 km of the Site. The Site comprised a large building with multiple storeys (1 – 4), trees, shrub, and grassland.</p> <p>Building 1 was considered Low Suitability as several potential roost features (PRFs) were noted on the southern aspect of the building in the form of gaps in the chipboard, raised metal cladding, gaps in the wooden soffit box and a hole in the fascia board. No urine stains, dropping or food remains were noted nearby the PRFs. Internally, it was noted the area on the ground floor in the western section of the building had damp conditions and was less draughty than the rest of the building, making this a suitable ‘non-classic’ winter potential for hibernating bats. Another suitable location accessed as a ‘non-classic’ winter potential for hibernating bats was the non-operational boiler room on the fourth floor, in which timber framing, was not draughty and had stable temperature conditions.</p> <p>The trees onsite (sycamore, rowan, and copper beech) were accessed as Negligible Suitability.</p> <p>The Site has Low Suitability as there are little suitable foraging opportunities, and the Site was isolated, with the exception of neighbouring gardens to the north of the Site.</p> <p>Requirements: One dusk emergence survey on Building 1. If bats are present, further surveys and a Natural England licence, mitigation strategy, and suitable compensation may be required;</p> <p>Subject to the bat survey results, a EcCow supervised non-licensed method statement and soft-strip of Building 1; in particular the damp area on the ground floor, and the non-operational boiler room on the fourth floor, and all external PRFs. Demolition of Building 1 should be conducted between September and November to avoid hibernating bats and roosting bats that may use the PRFs throughout summer. Furthermore, by ensuring demolition does not take</p>	<p>May – September submitted prior to determination.</p> <p>Pre- and during construction</p>
	Bats (Cont.)		

Risk Code	Factor	Comments and Actions Required	Timings
		<p>place during the cold winter months, thus avoiding hibernating bats, further surveys would not be required;</p> <p>A bat friendly lighting scheme should be included ensuring that any bat boxes or vegetation remain unlit and the connecting corridor to habitat to the north is retained; &</p> <p>Two integrated bat boxes should be included in the new building, with access at a minimum of 2 m above ground level.</p> <p>Enhancements: Landscape proposals should incorporate night-scented plants or those species beneficial to bats; &</p> <p>A further two bat boxes should be integrated or mounted on the new building, at least 3 m high away from light sources and branches and with a clear line of flight.</p>	<p>Design Stage</p> <p>Design Stage</p> <p>Design Stage</p>
	Statutory and Non-Statutory Designated Sites	<p>The Site lies within an IRZ for Clacton Cliffs & Foreshore, Holland Haven Marshes, Holland on Sea Cliff, and Colne Estuary but does not meet the requirement for consultation with Natural England as the proposal is for less than 100 residential units.</p> <p>The Site lies within the 22km recreational Zone of Influence (ZOI) for the Essex Estuaries SAC and the Essex Coast Recreational Avoidance & Mitigation Strategy (RAMS). And meets the impact criteria, suggesting potential for a recreational impact.</p> <p>Requirements: Payment per unit in the form of the Essex Coast RAMS tariff.</p>	Pre-development
	Habitats	<p>The Site comprised mostly hardstanding, in the form of the large building with varied storey sections (1 – 4 storeys), car park, pathways, and paved areas. Additionally, there were areas of modified grassland, shrub, and trees. Overall, the areas of grassland and scrub have low ecological value with exception of the onsite trees which have moderate ecological value, and the areas of hardstanding had negligible ecological value.</p> <p>Requirements: Protect all retained trees and hedgerows with root protection measures in line with BS 5837:2012;</p> <p>Tree planting, consisting of two trees for each tree lost;</p> <p>The use of wildlife, notably pollinator friendly, amenity perennial planting; &</p>	<p>Pre- and during construction</p> <p>Design Stage</p> <p>Design Stage</p>
	Habitats (Cont.)	<p>Species rich native hedgerow planting including at least six species.</p> <p>Enhancements: Planting of seed and fruit bearing plants with known value to wildlife.</p>	<p>Design Stage</p> <p>Design Stage</p>
	Birds	<p>The trees, dense ivy and building were suitable for nesting birds. Clearance of aforementioned habitats could impact active nests as well as see a loss in nesting habitat.</p> <p>Requirements: Clearance of sections of the scrub to be undertaken outside of the nesting bird season (1) to avoid impacts to active nests; or, during the nesting season (2) to be undertaken at most 48 hours after a nesting bird check performed by an ecologist. These measures can be included in line with recommendations for other protected species; &</p>	<p>Pre-construction, (1) Oct – Feb; or (2) Mar – Sept</p> <p>Design Stage</p>

Risk Code	Factor	Comments and Actions Required	Timings
		<p>Three house sparrow terrace boxes and three starling nest boxes should be integrated into the new building at least 4 m high with a clear flight line.</p> <p>Enhancements: Planting of seed and fruit bearing plants with known value to wildlife and foraging benefits for birds; &</p> <p>Four bird boxes; two 28mm and two 32mm hole fronted boxes to be mounted on trees or on the building and should be placed 2-4m high with a clear flight line.</p>	Design Stage
	Priority and Notably Species (Fauna and Flora)	<p>The desk study returned no records of hedgehog (<i>Erinaceus europaeus</i>). The desk study also returned 12 records of invertebrates, which were all notable and rare invertebrates, with some species listed on the Essex Red Species List.</p> <p>The Site offers moderately suitable foraging and commuting habitat for hedgehog and other small mammals within shrub, bramble, and grassland. It was noted there were areas of dense shrub with species such as ivy and bramble which can provide hibernation habitat.</p> <p>The Site also offer sup-optimal habitat – shrub and grassland – for foraging and commuting amphibians. As well as hibernacula and refugia suitability in the form of wooden fencing debris.</p> <p>The development has potential to cause direct injury or death to small mammals, including hedgehog during Site clearance and construction.</p> <p>Requirements: Any small mammal disturbed during construction should be allowed to flee of their own volition or moved to the Site boundary. Any excavations or holes to be covered or fenced off overnight, or planks placed inside to create a means of escape;</p> <p>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; &</p> <p>Proposed landscape planting to include species that provide food plants for small heath and wall moths.</p> <p>Enhancements: Two hedgehog houses could be installed in quiet areas of the Site. An invertebrate hotel and a log pile/loggery can be created onsite to improve hedgehog and invertebrate habitat;</p> <p>Species-rich hedgerow planting with species of value to wildlife and to be managed sensitively long term to benefit wildlife; &</p> <p>Tree planting of two native broad-leaved trees included within the landscape design.</p>	<p>Pre- and during construction</p> <p>Design Stage</p>
	Invasive Species	<p>Wall cotoneaster (<i>Cotoneaster horizontalis</i>) is present in the eastern boundary and south side of the building, Additionally, buddleia (<i>Buddleja davidii</i>), is present on the north and south side of Building 1, and on the southern boundary. Without onsite mitigation the development could cause further spread of wall cotoneaster and buddleia into the wider landscape, causing this species to outcompete native vegetation and reduce biodiversity.</p> <p>Requirements: The removal of the Cotoneaster shrub is recommended following the safe guidelines for the species; &</p>	<p>Pre- and construction Stage</p> <p>Design Stage</p>

Risk Code	Factor	Comments and Actions Required	Timings
		Landscape planting should avoid the inclusion of any species listed on Schedule 9 of the Wildlife and Countryside Act (as amended 1981).	
	Great Crested Newts Reptiles	Discussed but no further action required.	
	Otter Hazel Dormice White-clawed Crayfish Water Vole Badger	Considered but screened out due to a lack of suitable, connecting, or linked habitat combined with a lack of evidence onsite. No action required	

1 Introduction

1.1 Background

Practical Ecology Ltd were commissioned by Barefoot & Gilles to undertake a Preliminary Ecological Appraisal (PEA) of Colchester Institute, Clacton-on-Sea, 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 23rd November 2023.

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 NPPF¹.

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 0.25 ha (central OS grid reference TM 18055 14931, postcode CO15 6JQ) and is located in Church Road, Clacton-on-Sea. The Site is comprised of hardstanding, in the form of a building, car park, and pathways, as well as scrub, grassland, and trees. A Site boundary (red line) is shown in Figure 1 below.



Figure 1: Site Boundary from Google Earth, 2023

1.3 Proposed Development

The proposals include demolition of the existing building, car park, pathways, and the clearance of scrub, grassland, and trees to facilitate the development of a new building of flats, associated car park, access road, and private gardens. A proposal plan has been included in Appendix 1 (2248 SK 10-001).

2 Methods of Assessment

2.1 Desk Study

A search for Statutory Sites of Nature Conservation Value and Priority Habitats² within 1 km of the Site was undertaken on 9th November 2023 using the Multi Agency Geographical Information for the Countryside (MAGIC)³.

Ordnance Survey and Bing OS maps and satellite imagery from online sources were consulted to identify the presence of any water bodies within 500 m of the Site. Natural England's Open Data Geoportal was used to view the great crested newt risk zones maps⁴. 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 Essex Field Club⁵ 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, Essex Local BAP⁶, 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) species⁷ was also consulted as this remains an important reference source, despite being succeeded by the UK Post-2010 Biodiversity Framework⁸.

2.2 Preliminary Ecological Appraisal Site Survey

A Preliminary Ecological Appraisal survey of the Site was undertaken on 23rd November 2023 by Mike Bailey BA(Hons) PGCE ESAS, a Senior Ecologist with over 12 years of experience, licensed to undertake bat surveys and to disturb bats under Natural England Level 2, 3 & 4 Bat Survey Licences 2017-28389-CLS-CLS, 2021-10129-CL19-BAT, and 2021-10336-CL20-BAT and Amber Stringer MSc, an Assistant Ecologist with over 3 months' experience in ecological consultancy.

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 Appraisal⁹ 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 Classification¹⁰ 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 2019¹¹ and will continue to be referred to as European Protected Species (EPS). Further legislative details regarding protected species are included in Appendix 3.

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) Assessment¹² 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* (4th ed)¹³. 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* (4th ed)¹³.

Hazel Dormice (*Muscardinus avellanarius*)

The Dormouse Conservation Handbook (2nd Ed.)¹⁴ 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 1981¹⁵ 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.

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 2006¹⁶, 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 species¹⁷, 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 Biodiversity Enhancements

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.

In addition to this, the Environment Act 2021¹⁸ requires use of the DEFRA Biodiversity Metric to calculate the change in biodiversity units for all development sites that will result in the loss or degradation of habitat as well as a measurable 10% increase in biodiversity value post development. We are still in the 2 year implementation period for this aspect of the Act, with the statutory instruments making it mandatory by January 2024, this is still a requirement were detailed in local planning policy. As such a separate Biodiversity Net Gain Assessment will be undertaken for this scheme.

2.4 Limitations to Survey

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)
- Invasive Species

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:

- White-Clawed Crayfish
- Hazel Dormice
- Water Vole
- Otter

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:

Table 1: Notable Habitats within 1 km of the Site

Habitat	Areas	Parcels	Closest to Site
Maritime Cliff and Slope (Priority Habitat Inventory)	1	22	600 m W
No Main Habitat But Additional Habitats Present	2	2	574 m W
Traditional Orchards (Priority Habitat Inventory)	1	1	981 m NE

The parcel of habitat mapped as ‘No main habitat but additional habitats exists’, has a secondary habitat being included as ‘Traditional Orchards’ and ‘Unknown’ on MAGIC¹⁹.

The habitats listed in Table 1 bear 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 Classification²⁰ V2.0 (2023) and included developed land; sealed surface; car park, ground level planters, ornamental pond, modified grassland, scattered scrub, tree, mown, and invasive non-native. Primary and secondary habitat codes are included for ease of reference.

Onsite Habitats

Developed land; sealed surface; car park, ground level planters (u1b; 804, 845)

The majority of the Site consisted of developed land; sealed surface in the form of a large multiple roof level – two storey and four-storey – building, car park, and pathways. Notably there was an area of flagstones and wooden decking, in which covered the small pond on the north side of the building. The developed land; sealed surface has negligible ecological value in its own right.

Ornamental pond (r1;46)

A small artificial pond to the north of the Site, which was covered by decking, and had no vegetation present. This small pond has very low ecological value in its own right.

Modified grassland, scattered scrub, tree, mown, invasive non-native (g4; 10, 200, 106, 524)

In the northern, eastern and western sections of the Site, there was modified grassland that was infrequently managed and causing the sward heights to vary in places. Grassland species present were perennial ryegrass (*Lolium perenne*), creeping bent (*Agrostis stolonifera*), and false oat grass (*Argenteum elatius*). Forb species present were ribwort plantain (*Plantago lanceolata*), yarrow (*Achillea millefolium*), herb robert (*Geranium robertianum*), common spurge (*Euphorbia peplus*), broad-leaved dock (*Rumex obtusifolius*), ground ivy (*Glechoma hederacea*), groundsel (*Senecio vulgaris* L.), smooth sow thistle (*Sonchus oleraceus*), thistle (*Asteraceae* sp.), cleavers (*Galium aparine*), chickweed (*Stellaria media*), red dead nettle (*Lamium purpureum*), stinging nettle (*Urtica dioica*), black nightshade (*Solanum nigrum*), and comfrey (*Symphytum* sp.). Other species present were pendulous sedge (*Carex pendula*), and yucca sp. Tree species present were sycamore

(*Acer pseudoplatanus*), apple (*Malus* sp.), copper beech (*Fagus sylvatica* f. *purpurea*) and a holly sapling (*Ilex aquifolium*) which were present in the north of the Site. Scrub species present were bramble (*Rubus fruticosus*), elder (*Sambucus nigra*), and cherry laurel (*Prunus laurocerasus*). This area of grassland and scrub has low ecological value in its own right, with exception of the trees which have moderate ecological value.

Additionally, wall cotoneaster (*Cotoneaster horizontalis*) and buddleia (*Buddleja*) were present on the western and southern boundary. These species are further discussed in the invasive species section.

Surrounding Habitats

Surrounding the Site were:

Beach (t2h) in the form of the beach and coastline to the south of the Site.

Developed Land; Sealed Surfaces (u1b) in the form of street roads, pavements, and residential houses.

3.2.3 Assessment of Effects

The development will see the loss of all the habitats – developed land; sealed surface, grassland, scrub, and trees – to facilitate the new building, car park, and gardens. The majority of the habitats to be removed are common and ubiquitous, or have low ecological value in their own right, with the exception of the trees. Overall, the loss of habitat of ecological value is minimal and onsite compensation and enhancement for ecology is considered feasible. 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, consisting of two trees for each tree lost. Suitable species include rowan (*Sorbus aucuparia*), crab apple (*Malus sylvestris*), field maple (*Acer campestre*), and silver birch (*Betula pendula*).

The use of wildlife, notably pollinator friendly, amenity perennial planting; species such as *Lavendula* sp., *Salvia* sp (notably hardy salvia, sage, and rosemary), *Nepeta* sp., and *Verbena bonariensis* are all considered suitable.

Species-rich native hedgerow planting including at least six species including common hawthorn (*Crataegus monogyna*) and at least five other species potentially including any of the following; hazel (*Corylus avellana*), spindle (*Euonymus europaea*), dog rose (*Rosa canina*), bramble, field maple, hornbeam (*Carpinus betulus*), and beech (*Fagus sylvatica*), and to be managed sensitively long term to benefit wildlife.

Pre-Construction/ Construction Stage

Root and tree/hedgerow 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 Biodiversity Enhancements

Design Stage

Planting of seed and fruit bearing plants with known value to wildlife

3.3 Statutory and Non-statutory Sites of Nature Conservation Value

3.3.1 Desk Study

The desk study returned three records for statutory and one for 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 sites²¹ as well as Sites of Special Scientific Interest (SSSIs). Additionally, the Site was noted to fall within the 22km Recreational Zone of Influence of the Essex Estuaries Special Area of Conservation (SAC), which also considers Special Protected Areas (SPAs) and Ramsar sites (wetlands of international importance); all three designations fall into the Natura 200 network of sites. Details of these are included in Table 2, below.

Table 2: Statutory and Non-statutory Site Descriptions

Name	Designation	Distance (m)	Direction	Notable Features
Statutory Sites				
Blackwater, Crouch, Roach and Colne Estuaries	Marine Conservation Zone/s (MCZ) SSSI Special Area of Conservation Special Protection Area (SPA) RAMSAR	581 m	W	This is the largest inshore MCZ covering an area of 284 km ² . These existing sites protect extensive areas of mudflats and saltmarsh, which support a wide range of species including internationally and nationally important numbers of waterfowl such as Brent Goose and Curlew. The MCZ will build upon these existing designations, by offering protection to features such as the native oyster which are not already protected ²² .
Clacton Cliffs & Foreshore	SSSI	584.5 m	W	This SSSI is 8.28 ha and has been considered one of the most important Pleistocene interglacial deposits in Britain. The Clacton channel deposits are a sequence of freshwater and estuarine sediments occupying a channel cut into an earlier gravel accumulation and the underlying Tertiary London Clay. They have yielded abundant molluscan and mammalian fossil remains, fossil plants and pollen, all of which indicate a Hoxnian interglacial age ²³ .
Outer Thames Estuary	SPA	1 km	E	The Outer Thames Estuary SPA is classified for the protection of the largest aggregation of wintering red-throated diver (<i>Gavia stellata</i>) in the UK, an estimated population of 6,466 individuals, which is 38% of the wintering population of Great Britain. It also protects foraging areas for common tern (<i>Sterna hirundo</i>) and little tern (<i>Sternula albifrons</i>) during the breeding season ²⁴
Non-statutory Sites				
Clacton North	Essex Local	590 m	E	This site is comprised of sea-front scrubby

Name	Designation	Distance (m)	Direction	Notable Features
Cliff	Wildlife Sites (LOWS)			grassland and home to nationally notable maritime species. It is considered an important site for invertebrates ²⁵ .
IRZ – Statutory Sites				
Clacton Cliffs & Foreshore	SSSI	584.5 m	W	Details mentioned above in the Statutory Sites section of the table.
Holland Haven Marshes	SSSI National Nature Reserve (NNR)	2.9 km	E	This SSSI is 210.63 ha and comprises grassland, pools, scrub, reedbed, hedgerow, and coast cliff, and is inhabited by a wide range of species.
Holland On Sea Cliff	SSSI	3.4 km	E	This SSSI is 0.09 ha and is of great importance in the understanding the evolution of the London Basin and has two different gravels.
Colne Estuary	SSSI NNR RAMSAR SPA	6.4 km	W	This SSSI is 2986.47 ha and comprised maze of saltmarsh, shingle ridge, exposed mudflats, shell banks, and shingle pools. Its home to migratory waders and is an important point on the migratory route for many species of bird. Whilst providing ideal habitats for breeding birds. It's also home to rare invertebrates and plants.

3.3.2 Assessment of Effects

The Site lies in the impact risk zone for Clacton Cliffs & Foreshore (SSSI), Holland Haven Marshes (SSSI and NNR), Holland on Sea Cliff (SSSI), and Colne Estuary (SSSI, NNR, RAMSAR, and SPA) mentioned in Table 2, it does not meet the criteria for impacts for any of these IRZs that would require the LPA to consult with Natural England as the proposals are for less than 100 new residential dwellings.

The Site lies within the 22km recreational Zone of Influence for the Essex Estuaries SAC. The information available from MAGIC shows that the Site lies within the Essex Coast Recreational Avoidance & Mitigation Strategy (RAMS)²⁶ 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, Ramsar and SPA noted in Table 2.

3.3.3 Requirements

Payment in the form of the Essex Coast RAMS tariff (currently considered to be £125.58 per new dwelling as of 2020/2021 per the RAMS Supplementary Planning Document²⁷) will mitigate against the increased recreational disturbance which will be created by the additional dwelling

3.4 Great Crested Newts

3.4.1 Desk Study

The desk study returned no records of great crested newts (GCN) within 1 km of the Site.

No ponds were identified within 500 m of the proposed development. Figure 2 shows the pond locations in relation to the Site, with the 500 m search area highlighted and the ponds numbered by distance from the Site.

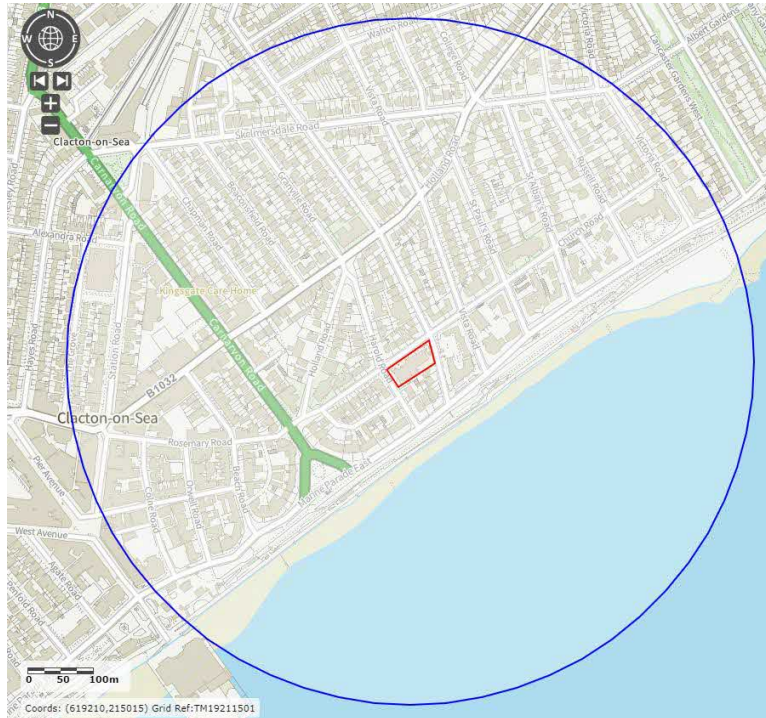


Figure 2: Ponds within 500 m of the Proposed Development

3.4.2 Field Survey

The Site has no ponds onsite providing no aquatic breeding habitat for GCNs. The terrestrial habitats – grassland and scrub – as well as piles of debris, provide poor suitable habitat for foraging, commuting, and refuge.

3.4.3 Assessment of Effects

There is no breeding aquatic habitat present on Site. Research from English Nature (now Natural England) has shown GCNs 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 pond²⁸. The Site is located within a green risk zone. The risk zones for district level licensing have been produced by Natural England using data modelling and based on great crested newt populations collected data to show areas where GCNs are likely to be present and assess the effect of a proposed development in the area. There are three risk zones under defined by NE in which green risk zones have fewer areas with great crested newts.

Therefore, as there is a lack of confirmed ponds present onsite, and low suitable terrestrial habitat, and no local GCN records were returned, GCNs are considered unlikely to be present and thus will not impact the favourable conservation status of the species locally.

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 1km data search occurring within last 10 years:

- Daubenton's bat (*Myotis daubentonii*)
- Nathusius's pipistrelle (*Pipistrellus nathusii*)
- Brown long-eared (*Plecotus auritus*)

These records include records of injured and rescued bats (which are often found nearby roosts) with the most recent from 2015 corresponding to a Nathusius's pipistrelle found c. 374 m W of the Site.

3.5.2 Field Survey

Roosting Habitat

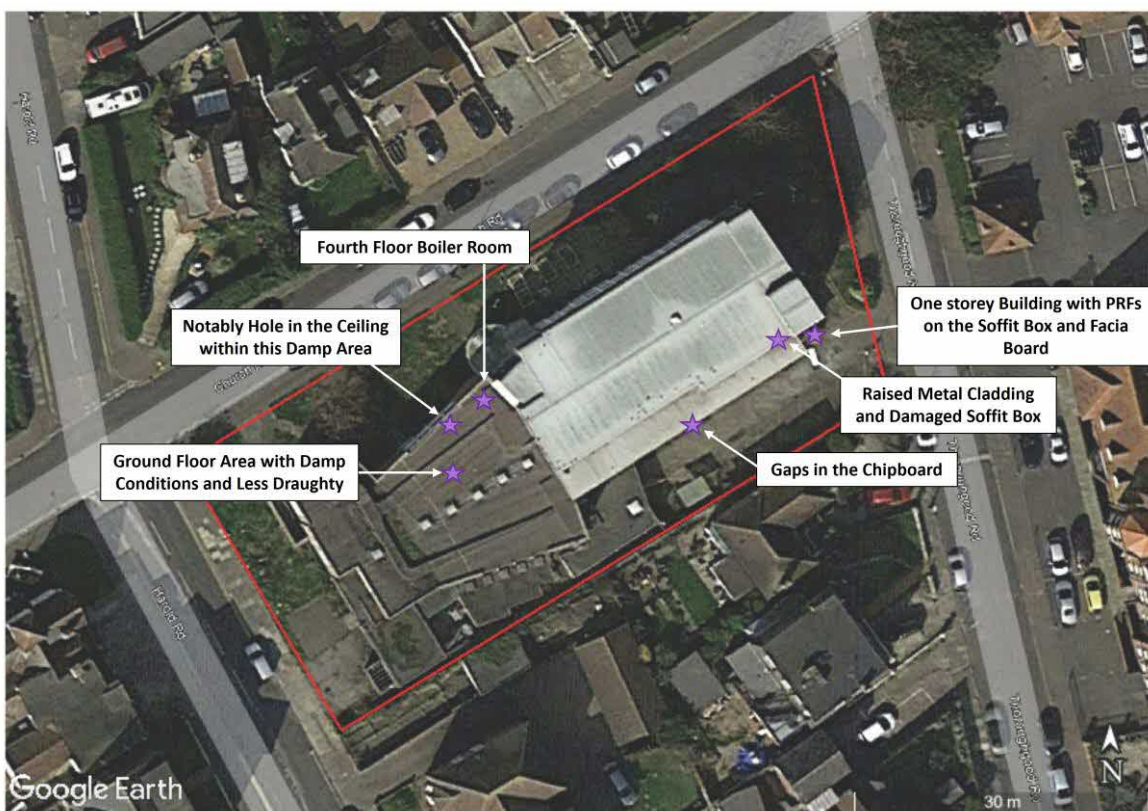


Figure 3: Aerial view with PRFs Represented as Purple Stars

Building 1 – Low Suitability¹³

The rectangular building is a solid walled red brick building with timber framing, there is large four storey section on the eastern side of the Site, which scales down to two storeys on the western side, and further scales down to one-storey sections on each aspect of the building. The four-storey section has a slightly pitched corrugated roofing and the one- and two-storey sections has flat bitumen 1F felt roof.

Building 1 had windows spanning the length of the building on each floor, and the majority of the windows were smashed and broken. The first-floor windows were boarded up with chipboard, in which the majority of the chip boards were sealed shut but there was a gap within each chip board large enough to allow entry for an individual bat. Making these gaps a low suitable Potential Roof Features (PRFs). However, there was not any evidence in the form of bats, droppings or urine splatter.

On the southeastern corner of the building, there is a one-storey section with a flat bitumen 1F felt roof and soffit box. It was noted gaps under the fascia board between the brick wall, and a hole in the fascia board. The gaps within this one-storey section a Low Suitability¹³ for roosting bats. However, there was not any evidence in the form of droppings and urine splatter.

It was noted the metal cladding was raised on the south face of the building, and wooden soffit box underneath this cladding was damaged, which created gaps.

Internally the Building 1 had stud walls, and plaster tile roof tiles, in which holes were noted throughout the building due to repeated damage. It was noted that the building was draughty throughout with the exception of the rooms on the west side of Building 1 where it was damp and not as draughty. Within this area, in one of the side rooms on the northern side of Building 1, there was a hole in the corner of the ceiling. This area was assessed as having 'non-classic' winter potential for hibernating bats²⁹.

The ground floor of Building 1 remained a constant, cool temperature throughout with hibernating herald moths (*Scoliopteryx libatrix*), small tortoiseshell (*Aglais urticae*) and peacock (*Aglais io*) butterflies noted, in which 60+ individuals were counted, indicating a stable and suitable microclimate for hibernating bats.

Similarly with the ground floor, there was damage to the walls and ceilings, and the windows were smashed, causing the building to be draughty. Additionally, on the fourth floor, the building was open plan with an exposed rafters and ceiling, which was assessed as having Negligible Suitability¹³.

On the fourth floor towards the west side of the building, there was small, non-operational boiler room which had timber frames and brick walls. This room was not draughty and appeared to have a stabilised temperature, with crevices amongst timber beams, and was determined as having 'non-classic' winter potential for hibernating bats.

Trees

No trees on the Site were noted to have any potential roost features (PRFs) and, consequently, all trees were assessed as having Negligible Suitability¹³ for roosting bats.

Foraging and Commuting

The Site has little suitable foraging opportunities, and so was assessed as having Low Suitability¹³ for foraging and commuting bats. Additionally, the Site is quite isolated due to having not having any nature corridors towards any suitable foraging features. There is some very limited connectivity with residential gardens.

3.5.3 Assessment of Effects

Without further assessment, the development – demolition of Building 1 - has potential to cause the injury or death of hibernating and roosting bats and damage or destroy a bat roost. Therefore, further assessment survey is required, in the form of a presence/ absence survey, to ascertain whether bats are roosting within Building 1.

The development of the Site may result in increased light levels and light spill onto neighbouring gardens and trees, which could be used by commuting and foraging bats. Any light spill on to these features will reduce their suitability for foraging, roosting, and commuting bat.

3.5.4 Requirements

Prior To Determination

A single dusk emergence survey should be undertaken between May and August to ascertain whether bats are roosting in Building 1. This should follow best practice guidelines¹³. Should bats be present then further

surveys, a Natural England license, and mitigation strategy may be required.

Pre-construction and Construction Stage

Subject to the bat survey results, to reduce the risk of harm to individual bats, a non-licensed method statement with EcCOW supervision and soft strip of Building 1, in particular the damp area on the ground floor, and the non-operational boiler room on the fourth floor, and all external PRFs is required. Demolition of Building 1 should be conducted between September and November to avoid hibernating bats and roosting bats that may use the PRFs throughout summer. Furthermore, by ensuring demolition does not take place during the cold winter months, thus avoiding hibernating bats, further surveys would not be required.

Design Stage

Detailed mitigation and compensation can be advised on when the detailed surveys have been completed. If no evidence of bats is found during this survey, then the recommendations below give an illustration of what will likely be required. If bats are found, then additional measures are likely to be needed.

To compensate for the loss of potential roost features in Building 1, two integrated bat boxes should be included in the new building, with access at a minimum of 2 m above ground level. Dependent on the outcome of the bat survey, further compensatory roost provision may be required.

Any lighting schemes to be installed during and post-construction must be designed to prevent unnecessary light spill onto the vegetation and any bat boxes installed as part of the development. The following guidance³⁰³¹ 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 550nm to avoid the component of light most disturbing to bats³².

- 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 columns³³ will reduce the spill of light into unwanted areas such as the aforementioned habitats.

- Artificial lighting proposals must not directly illuminate neighbouring gardens, 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. Should any external lighting be proposed, then a review of this by an ecologist should be undertaken to ensure that boundary features and trees are protected from significant light spill.

3.5.5 Biodiversity Enhancements

The following are considered to be suitable enhancements for bats:

- Landscape proposals should incorporate night scented plants or those species beneficial to bats.

- A further two bat boxes should be integrated or mounted on the new building, at least 3 m high away from light sources and branches and 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 notable³⁴ species listed in Table 4, below.

Table 4: Notable Birds within Data Search

Species		Protection			
Scientific Name	Common Name	Schedule 1 WCA	BoCC Status	National Priority	Local Priority
<i>Coloeus monedula</i>	Jackdaw		Green		✓
<i>Columba livia</i>	Rock dove		Green		✓
<i>Columba palumbus</i>	Woodpigeon		Amber		✓
<i>Corvus corone</i>	Carrion crow		Green	✓	✓
<i>Cyanistes caeruleus</i>	Blue tit		Green		✓
<i>Erithacus rubecula</i>	Robin		Green		✓
<i>Garrulus glandarius</i>	Jay		Green		✓
<i>Larus argentatus</i>	Herring gull		Red		✓
<i>Larus canus</i>	Common gull		Amber		✓
<i>Larus fuscus</i>	Lesser black-backed gull		Amber		✓
<i>Larus marinus</i>	Great black-backed gull		Amber		✓
<i>Motacilla alba</i>	Pied wagtail		Green	✓	✓
<i>Parus major</i>	Great tit		Green		✓
<i>Periparus ater</i>	Coal tit		Green		✓
<i>Pica pica</i>	Magpie		Green		✓
<i>Prunella modularis</i>	Dunnock		Amber	✓	✓
<i>Streptopelia decaocto</i>	Collared dove		Green		✓
<i>Sturnus vulgaris</i>	Starling		Red	✓	✓
<i>Troglodytes troglodytes</i>	Wren		Amber	✓	✓
<i>Turdus merula</i>	Blackbird		Green	✓	✓

3.6.2 Field Survey

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

Table 5: Birds Recorded Onsite

Species		Protection			
Scientific Name	Common Name	Schedule 1 WCA	BoCC Status	National Priority	Local Priority
<i>Columba livia domestica</i>	Feral pigeon		Green		✓
<i>Columba palumbus</i>	Woodpigeon		Amber		✓
<i>Cyanistes caeruleus</i>	Blue tit		Green		✓
<i>Larus argentatus</i>	Herring gull		Red		✓
<i>Motacilla alba</i>	Pied wagtail		Green	✓	✓

No bird nests were observed on the site during the Site visit. The Site offered suitable nesting habitat for birds in the sycamore tree to the north of Site, dense ivy shrub to the east of the Site, and the shrub alongside the south of the building. The building itself offers multiple nesting opportunities as the windows have been

smashed thus causing easy access to birds, in particular for feral pigeon (*Columba livia domestica*) and woodpigeon (*Columba palumbus*), which were perched on the edge of the building, and in a room on the northwestern corner of the building on the third floor. There was a lot of evidence in the form of bird droppings, dead birds, and a feral pigeon perched on the exposed pipes.

3.6.3 Assessment of Effects

The development will result in the loss of nesting habitat in the form of trees, shrubs, and the building, which can result in the damage or destruction of active nests, if clearance is undertaken during the nesting season.

3.6.4 Requirements

Clearance of the trees, shrub, and the building should be undertaken outside of the nesting bird season. The nesting bird season is considered to run from March to September, inclusive, but does vary depending on weather. Site clearance timings will need to take account of recommendations for other protected species.

If this is not possible and clearance is undertaken during nesting season, then it should only be undertaken within 24-48 hours of a nesting bird check undertaken by a suitably experienced ecologist. Should nests be encountered then clearance around the nest will be paused, and a reasonable buffer installed until young have fledged the nest and the nest is abandoned.

The loss of nesting habitat should be compensated for by including three house sparrow terrace boxes with three 32 mm holes, and three starling nest boxes, these should be integrated into the new building at least 4 m high, north or east facing.

3.6.5 Biodiversity Enhancements

Planting of seed and fruit bearing plants with known value to wildlife and foraging benefits for birds. This should include a range of plant types that provide a range of resources across different seasons, along with species such as crab apple (*Malus sylvestris*), holly (*Ilex aquifolium*) and plum trees (*Prunus domestica*).

Four bird boxes; two 28mm and two 32mm hole fronted boxes to be mounted on trees or on the building and should be placed 2-4m high with a clear flight line.

3.7 Reptiles

3.7.1 Desk Study

The desk study returned no reptile records were within 1 km of the Site.

3.7.2 Field Survey

The Site offers sub-optimal suitability for reptiles in the form of shrub and wooden fencing debris, which can provide potential hibernacula if individuals are in the area.

3.7.3 Assessment of Effects

The development will result in the loss of potential hibernacula in the form of shrub and wooden fencing debris. The scale of the development is unlikely to pose a risk to any reptile populations, due to the small amount of suitable habitat onsite.

The Site is considered somewhat isolated to the wider landscape and has been subjected to maintenance in the form of strimming and pruning the onsite vegetation. This suggests it is unlikely reptiles are present onsite. However, records of adder have been collected nearby the Site, but as the Site is isolated and scale of the development is small, adder are considered unlikely to be present and thus will not impact the favourable conservation status of the species locally.

3.7.4 Requirements

No further recommendations are made with regards to this species.

3.8 Priority & Notable Species

3.8.1 Desk Study

The desk study returned no records for hedgehog (*Erinaceus europaeus*) within 1 km of the Site. The desk study returned 12 records of invertebrates, such as small heath (*Coenonympha pamphilus*) and wall moth (*Lasiommata megera*), were recorded 1 km NE of the Site. The aforementioned species are all notable and rare invertebrates, with some species listed on the Essex Red Species List³⁵.

3.8.2 Field Survey

The Site has moderately suitable foraging and commuting habitat for hedgehog and other small mammals within the shrub, bramble, and grassland. It was noted there were areas of dense shrub with species such as ivy and bramble which can provide hibernation habitat. It was also noted that there were holes within the erected fencing around the Site.

The Site also offer sup-optimal habitat – shrub and grassland – for foraging and commuting amphibians. As well as hibernacula and refugia suitability in the form of wooden fencing debris.

3.8.3 Assessment of Effects

The development has potential to cause injury or death to small mammals, including hedgehog and small mammals disturbed during Site clearance. Additionally, records of hedgehog have been collected nearby the Site. However, the development is unlikely to cause any impacts to the population of any notable or Priority species.

The Site does not contain specialist microhabitats relevant to any of the aforementioned invertebrates, and so the development is considered to not directly impact them due to lack of suitable habitat, specifically their food plant on Site. However, the Site does provide suitable habitat for generalist habitat invertebrates and bramble, trees, shrub, and grassland.

3.8.4 Requirements

Any small mammal disturbed during construction should be allowed to flee of their own volition or relocated to the Site boundary. Any excavations or holes to be covered or fenced off overnight, or planks placed inside to create a means of escape.

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.

Proposed landscape planting to include, fescues (*Festuca* spp.), meadow-grasses (*Poa* spp.), and bents (*Agrostis* spp.), tor-grass (*Brachypodium pinnatum*), false Brome (*B. sylvaticum*), cock's-foot (*Dactylis glomerata*), wavy hair-grass (*Deschampsia flexuosa*), and Yorkshire-fog (*Holcus lanatus*) to provide food plants for the small heath and wall moths.

3.8.5 Biodiversity Enhancements

Two hedgehog houses should be installed in quiet areas of the Site.

An invertebrate hotel, and a log pile/logger can be created onsite to improve hedgehog and invertebrate habitat.

Species-rich native hedgerow planting with species of value to wildlife. This should be managed with wildlife in mind, with a sensitive cutting regime, designed to maximise availability of berries, fruits and other food sources, and minimise disturbance to wildlife by infrequent cutting.

3.9 Invasive Species

3.9.1 Desk Study

The desk study returned six records of invasive species, which included three-cornered garlic (*Allium triquetrum*), buddleia (*Buddleja davidii*), Russian vine (*Fallopia baldschuanica*), Spanish bluebell (*Hyacinthoides hispanica*), evergreen oak (*Quercus ilex*), and alexanders (*Smyrniolus atratum*).

3.9.2 Field Survey

Wall cotoneaster (*Cotoneaster horizontalis*) is present in the eastern boundary and on the south side of the building. Buddleia is present on the north and south side of Building 1, and on the southern boundary. Locations are shown as purple stars (buddleia), and red stars (wall cotoneaster) in Figure 3 below.



Figure 3: Aerial Image of Onsite Invasive Species Locations

3.9.3 Assessment of Effects

Wall cotoneaster is listed on Schedule 9 of the Wildlife and Countryside Act (as amended 1981) and so without mitigation, the development could cause further spread of this invasive species. Buddleia is not listed on the Schedule 9 of the Wildlife and Countryside Act (as amended 1981), but this species is a non-native invasive species, and so the spread of this species into the wider landscape should also be avoided.

Unless invasive species colonise the Site after the survey, the proposals will not cause the spread of any Schedule 9 of the Wildlife and Countryside Act (as amended 1981).

3.9.4 Requirements

The removal of the Cotoneaster shrub is recommended following the safe guidelines for the species including the cutting and bagging cotoneaster if in berry and disposing at licensed landfill and treated as controlled waste or chipping and composting of cotoneaster and buddleia when not in berry. Please refer to the onsite images of cotoneaster below (Figure 4).

Landscape planting should avoid the inclusion of any species listed on Schedule 9 of the Wildlife and Countryside Act (as amended 1981).



Figure 4: Images of Wall cotoneaster onsite.

4 Biodiversity Enhancements 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.

Table 6: Summary of Additional Biodiversity Enhancement Measures

Group or Habitat	Enhancement
Habitat	Planting of seed and fruit bearing plants with known value to wildlife
Bat	<p>Landscape proposals should incorporate night scented plants or those species beneficial to bats.</p> <p>A further two bat boxes should be integrated or mounted on the new building, at least 3 m high away from light sources and branches and with a clear line of flight.</p>
Bird	<p>Planting of seed and fruit bearing plants with known value to wildlife and foraging benefits for birds. This should include a range of plant types that provide a range of resources across different seasons, along with species such as crab apple (<i>Malus sylvestris</i>), holly (<i>Ilex aquifolium</i>) and plum trees (<i>Prunus domestica</i>).</p> <p>Four bird boxes; two 28mm and two 32mm hole fronted boxes to be mounted on trees or on the building and should be placed 2-4m high with a clear flight line.</p>
Priority and Notable Species	<p>Two hedgehog houses could be installed in quiet areas of the Site. An invertebrate hotel and a log pile/loggery can be created onsite to improve hedgehog and invertebrate habitat.</p> <p>Species-rich native hedgerow planting with species of value to wildlife and to be managed sensitively long term to benefit wildlife.</p> <p>Tree planting of two native broad-leaved trees included within the landscape design.</p>

5 References

- ¹ MHCLG: Ministry of Housing, Communities and Local Government, 2021. National Planning Policy Framework. [online] Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>
- ² Maddock, A. ed., 2008. UK Biodiversity Action Plan; Priority Habitat Descriptions. [pdf] Available at: http://archive.jncc.gov.uk/PDF/UKBAP_PriorityHabitatDesc-Rev2011.pdf
- ³ <https://magic.defra.gov.uk/MagicMap.aspx>
- ⁴ <https://naturalengland-defra.opendata.arcgis.com/search?q=gcn>
- ⁵ <https://www.essexfieldclub.org.uk/portal.php>
- ⁶ <https://www.essexfieldclub.org.uk/portal.php/p/UKBAP%20Essex%20species%20and%20habitats>
- ⁷ JNCC [Joint Nature Conservation Council], 2007. Report on the Species and Habitat Review. [pdf] Available at: http://archive.jncc.gov.uk/PDF/UKBAP_Species-HabitatsReview-2007.pdf.
- ⁸ JNCC, 2019. UK Post-2010 Biodiversity Framework (2012–2019). [online] Available at: <https://hub.jncc.gov.uk/assets/587024ff-864f-4d1d-a669-f38cb448abdc>.
- ⁹ CIEEM, 2017. Guidelines for Preliminary Ecological Appraisal: Second Edition. December 2017.
- ¹⁰ UKHab Ltd (2023). UK Habitat Classification Version 2.0 (at <https://www.ukhab.org>)
- ¹¹ The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (SI 2019: 579) Available at: <https://www.legislation.gov.uk/uksi/2019/579/contents/made>
- ¹² Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). *Herpetological Journal* 10(4), 143-155.
- ¹³ Collins, J. ed., 2023. Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th ed). The Bat Conservation Trust, London.
- ¹⁴ Bright, P., Morris, P., and Mitchell-Jones, T., (2006) *The Dormouse Conservation Handbook* (2nd ed.), English Nature.
- ¹⁵ Wildlife and Countryside Act 1981 as amended (SI 1981 c.69) Available online at: <http://www.legislation.gov.uk/ukpga/1981/69>
- ¹⁶ Natural Environment and Rural Communities Act 2006, c.16. Available at: <http://www.legislation.gov.uk/ukpga/2006/16>.
- ¹⁷ BSBI [Botanical Society of Britain & Ireland], 2018. Great Britain Red List for vascular plants. [xlsx] Available at: <https://bsbi.org/download/10959/>.
- ¹⁸ <https://www.legislation.gov.uk/ukpga/2021/30/part/6/crossheading/biodiversity-gain-in-planning/enacted>
- ¹⁹ <https://magic.defra.gov.uk/MagicMap.aspx>
- ²⁰ UK Habitat Classification Working Group (2018) UK Habitat Classification – Habitat Definitions V2.0.
- ²¹ The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 [online] Available at: <https://www.legislation.gov.uk/uksi/2019/579/contents/made>
- ²² Natural England, 2023. Blackwater, Crouch, Road, and Colne MCZ factsheet V3. [pdf]. Available at: <file:///C:/Users/User2/Downloads/Blackwater,%20Crouch,%20Roach%20and%20Colne%20MCZ%20Factsheet.pdf>
- ²³ Natural England, 2023. Clacton cliff and Foreshore Citation. [pdf]. Available at: https://web.archive.org/web/20160304044902/http://www.sssi.naturalengland.org.uk/citation/citation_photo/1003908.pdf
- ²⁴ <https://jncc.gov.uk/our-work/outer-thames-estuary-spa/>
- ²⁵ Essex Wildlife Trust Biological Records Centre, 2023. Te107 Clacton North Cliff. [pdf] Available at: <https://www.essexwtrecords.org.uk/LoWS/Te107>
- ²⁶ https://consultations.essex.gov.uk/place-services/the-essex-coast-rams-spd/supporting_documents/Essex%20Coast%20RAMS_July%202019.pdf
- ²⁷ <https://www.chelmsford.gov.uk/media/0fznrja3/essex-coast-rams-supplementary-planning-document.pdf>
- ²⁸ Cresswell, W., and Whitworth, R., 2004. English Nature Research Reports No. 576 - An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt *Triturus cristatus*. English Nature, Peterborough, UK.
- ²⁹ Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.
- ³⁰ Miles, J., Ferguson, J., Smith, N., and Fox, H., 2018. Guidance Note 08/18 Bats and artificial lighting in the UK. [pdf] Available at: <https://cdn.bats.org.uk/pdf/Resources/ilp-guidance-note-8-bats-and-artificial-lighting-compressed.pdf>.
- ³¹ Gunnell, K., Grant, G., and Williams, C., 2012. Landscape and urban design for bats and biodiversity. Bat Conservation Trust, London, UK.
- ³² Stone, E.L., Jones, G., Harris, S., 2012. Conserving energy at a cost to biodiversity? Impacts of LED lighting on bats. *Glob. Change Biol.* 18, 2458–2465.
- ³³ Fure, A., 2012. Bats and Lighting – six years on. *The London Naturalist* 91, 69-88.
- ³⁴ Eaton, M., Aebischer, N., Brown, A., Hearn, R., Lock, L., Musgrove, A., Noble, D., Stroud, D., and Gregory, R., 2015. Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands, and Isle of Man. *British Birds* 108, 708-746.
- ³⁵ www.essexfieldclub.org.uk/portal/p/Essex+Red+Data+List.

Appendix 2: Site Photographs



Photo 1: Sycamore tree north of the Site.



Photo 2 Northern aspect of the building.



Photo 3: Northern aspect of the building with the buddleia bush.



Photo 4: Flagstones, shrubs, including bramble and buddleia, and wooden frame debris.



Photo 5: Crab apple tree and wall cotoneaster on the eastern boundary fencing.



Photo 6: Dense ivy shrub on the eastern boundary fencing.



Photo 7: Wooden fencing debris in the east side of the Site.



Photo 8: Garden planters in the north east corner of the Site.



Photo 9: Decking, wooden fencing debris and a pond beneath



Photo 10: One storey section on the eastern aspect of the Building 1.



Photo 11: Electrical box on the eastern aspect of Building 1.



Photo 12: Southern aspect of Building 1 with car park.

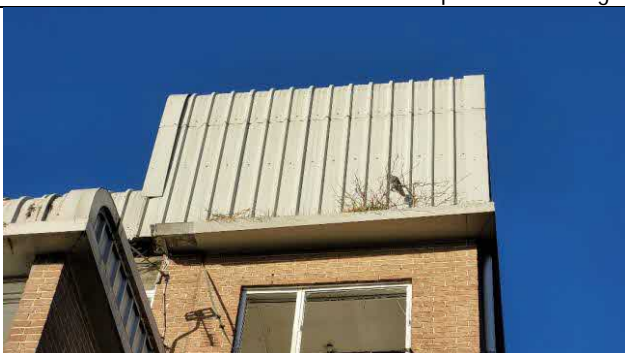


Photo 13: Woodpigeon perched on vegetation growing out of the soffit box on the southern aspect.



Photo 14: Feral pigeons perched along the soffit box on the southern aspect.



Photo 15: PRFs within the soffit box on the one-storey section on the southern aspect of the Building 1.



Photo 16: A gap on the fascia board, creating a PRF on the one-storey section on the southern aspect of the Building 1.



Photo 17: Wall cotoneaster on the south side of Building 1.



Photo 18: Gaps within the chipboard on the southern aspect of Building 1.



Photo 19: Hibernating small tortoiseshell within the elevator.



Photo 20: Fox scat found on the ground floor.



Photo 21: Herald moth hibernating.



Photo 22: Peacock butterfly hibernating.



Photo 23: Non-operational boiler room on the fourth floor.



Photo 24: Fourth floor with exposed rafters and ceiling.



Photo 25: Gap created with unsealed chipboard



Photo 26: Dead pigeon remains.



Photo 27: Felt roof on one-storey section on the southern side of Building 1.



Photo 28: Collection of bird nesting debris with bird droppings.



Photo 28: Western aspect of the Building 1, with a garage extension.



Photo 29: Slope on the western side of Building 1.

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 exit 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 or nurture their young;
- 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).