PRELIMINARY ECOLOGICAL APPRAISAL

OCTOBER 2024

The Eagle at Barrow
Clitheroe Road,
Clitheroe,
BB7 9AQ

URBAN GREEN

QUALITY MANAGEMENT

Project No.:	UG2650				
Project:	The Eagle at Barrow				
Location:	Clitheroe Road, Clitheroe, BB7 9AQ				
Title:	Preliminary Ecological Appraisal				
Document Type:	PEA	**Issue No.:**	01		
Date:	10/09/2024				
Prepared By:	Jake Healy	**Signature:**		**Qualifications:**	Ecologist, MSc, ACIEEM
Checked By:	Toby Mills	**Signature:**		**Qualifications:**	Assistant Ecologist, BSc

Revision Status

Rev	Date	Comment	Prepared	Checked
02	31/10/2024	Update report to reflect reduction in red line boundary	JH	BIG
03	24/01/2025	Revised for client comments	BIG	-

CONTENTS

1 Executive Summary

1.1.1.1 Fence Gate Ltd is proposing to develop land at The Eagle at Barrow in Lancashire (hereafter referred to as 'the site').

1.1.1.2 The proposals include development of a two-storey hotel with accommodation for 38 bedrooms, supplemented by associated hard and soft landscaping.

1.1.1.3 Urban Green has been appointed to complete a Preliminary Ecological Appraisal of the site. The objectives of the assessment are to identify habitats on site and determine the suitability for any 'protected and/or notable' species that may occur on site. Mitigation efforts are recommended, to minimise potential impacts on ecology, due to the proposed development.

1.1.1.4 Following the survey work, the key recommendations are summarised in the following table:

Current Site Use and Adjacent Site Use	The site is an active car park, for the adjacent restaurant, with amenity space managed for its aesthetical value. The village of Barrow, Lancashire is present immediately north of the site with much of the surrounding landscape consisting of agricultural land.
Potential Impacts on Designated Sites	No potential impacts on designated sites nearby to the site are anticipated to occur due to the proposed development. The site is located at a sufficient distance from nearby designated sites, and the proposed development activities have been considered.
Habitats	The site comprised predominantly hardstanding and modified grassland, with smaller areas of introduced shrub, scattered trees and a small brook.
Ecological Constraints	The following potential ecological constraints were identified during the assessment: • Suitable habitats for: o nesting birds, o common amphibians, o bats, o hedgehog, and o commuting and foraging badger
Recommended Ecological Mitigation	The following mitigation measures are recommended to minimise potential impacts due to the proposed development: • Precautionary Working Methods during the construction phase for badgers. • If any vegetation requires removal, it should be completed outside of the breeding bird season (March to September, inclusive). If this is not feasible, a Nesting Bird Check is to be completed by a qualified ecologist within 48 hours before removal is completed. • Reasonable avoidance measures for common amphibians and hedgehog. • Lighting mitigation should follow the guidance outlined in the Institute for Lighting Engineers document "Guidance for the Reduction of Obtrusive Lighting" (2005) and BCT's "Bats and Artificial Lighting in the UK" (2018).
Recommended Further Surveys and Reports	Based on the proposals for the site (at the time of writing), no further ecological surveys are required in order for the scheme to progress.
Recommended Ecological Enhancements	The National Planning Policy Framework (NPPF) (2024) highlights the requirement for planning policies and decisions to conserve and enhance the natural environment. The proposed development provides the opportunity to enhance the site and ecological enhancements have been recommended.

Legend:

Red Line Boundary

0.85

Kilometers

N

Client: Fence Gate Limited	Issue: 01	Figure: 01
Project: The Eagle at Barrow	Scale @ A4: 1:10,000	
Title: Site Context	Approved by: CL	Checked by: MK
Drawing Ref: UG_2650_SITE_CONTEXT	Author: CL	Date: 30/07/2024

URBAN GREEN

A: Ground Floor, The Tower, Deva City Office Park, Trinity Way, Manchester M3 7BF

T: +44 (0) 161 312 3131

weareurbangreen.co.uk

373400 373420 373440 373460 373480 373500 373520 373540 373560 373580 373600

437600 437580 437560 437540 437520 437500 437480 437460 437440

373400 373420 373440 373460 373480 373500 373520 373540 373560 373580 373600

437600 437580 437560 437540 437520 437500 437480 437460 437440

URBAN GREEN

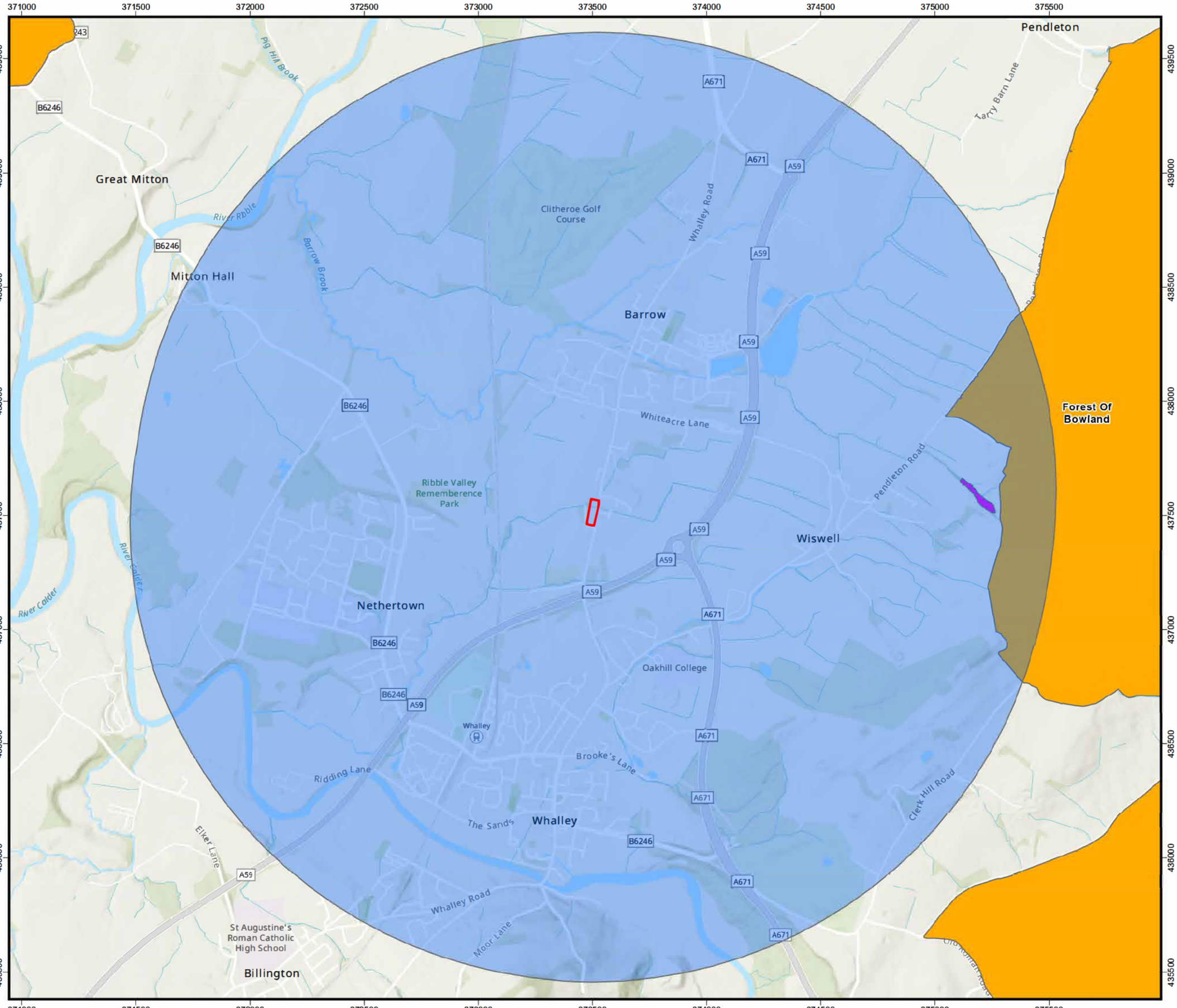
N

- Red Line Boundary
- Other rivers and steams
- Modified grassland
- Other developed land
- Urban
- Target Notes

TN1 - Pile of grass cuttings

0 5 10 20 Meters

Client: Fence Gate Limited		
Project: The Eagle at Barrow		
Title: Baseline Habitat Map		
Issue: 01	Figure: 02	
Drawn: CL	Checked: SP	Approved: SP
Project: UG2650	Scale @ A3: 1:650	Date: 01/11/2024
Dwg No: UG_2650_ECO_HM_01		Revision: 01



URBAN GREEN

Legend

- Red Line Boundary
- 2km Buffer
- Areas of Outstanding Natural Beauty (England) © Natural England
- Sites of Special Scientific Interest (England) © Natural England

N

0 180 360 720 Meters

Client: Fence Gate Limited			
Project: The Eagle at Barrow			
Title: Designated Sites			
Issue: 01		Figure: 03	
Drawn: CL	Checked: JH	Approved: JH	
Project: UG2650	Scale @ A3: 1:15,000	Date: 30/08/2024	
Dwg No: UG_2650_ECO_DS_01		Revision: 01	

Figure 4. Photographs of the Site

Photograph 1: Hardstanding car park – Main feature of the site

Photograph 2: Large parcel of modified grassland at southern extent of site

Photograph 3: Introduced shrub planter within car park

Photograph 4: Introduced shrub area along western boundary

Photograph 5: Introduced shrub area along western boundary

Photograph 6: Introduced shrub area along western boundary

Photograph 7: Introduced shrub area along western boundary

Photograph 8: Pile of Grass cuttings (TN1)

Photograph 9: Unnamed brook

Photograph 10: Unnamed brook

2 Introduction

2.1 Scope

2.1.1.1 Urban Green has been instructed by Fence Gate Ltd to carry out a Preliminary Ecological Appraisal to British Standard 42020:2013 guidelines at The Eagle at Barrow in Clitheroe and produce our findings in a technical report.

2.1.1.2 The proposals include development of a two-storey hotel with accommodation for 38 bedrooms, supplemented by associated hard and soft landscaping.

2.2 Site Context

2.2.1.1 The site is located at National Grid Reference SD 73503 37534 and comprises a total area of approximately 0.4ha (see Figure 1).

2.2.1.2 The site is located at the southern end of the rural village of Barrow in Lancashire. The urban settlement of Barrow is present immediately to the north comprising predominantly of residential development with industrial and commercial development at the northern extent of the village. Agricultural land dominates the surrounding landscape to the east and west, and immediately south of the site, with the village of Whalley present approximately 1km further south. Clitheroe Road immediately borders the eastern boundary of the site. The River Calder runs approximately 1.5km south of the site, a tributary of the River Ribble which is located approximately 2.4km west of the site at its closest point.

2.3 Purpose of Report

2.3.1.1 This report has been produced to set out the methods, results, and conclusions of a PEA. The purpose of the PEA report is to identify habitats on site and determine the sites potential value for protected and/or notable fauna and flora, with the addition of potential impacts on designated sites. This will inform the need for any further ecological surveys and/or mitigation to minimise the potential impacts on ecology on site and within the local area.

2.3.1.2 Further information and details of UK legislation for those species which are formally protected is defined in Appendix 1, which are considered throughout the assessment.

2.3.1.3 The National Planning Policy Framework (NPPF) (2024) and other Local Planning Policies are considered with the PEA. Ecological enhancements are advised to be in line with relevant Planning Polices.

3 Methods

3.1.1.1 The PEA assessment and Report follows the good practice methodology as detailed within the *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2019).

3.2 Desk Study

3.2.1 Online Resources and Local Records Centre

3.2.1.1 Due to the size and low impact of the proposed development and being located within a small rural area of Barrow, Lancashire a 1km Local Data Search was conducted as it is deemed an appropriate distance for the Zone of Influence.

3.2.1.2 Sources of information used in the desk study are presented in Table 1.

Table 1. Desk Study Sources of Information

Source	Date Consulted	Information Sought
MAGIC website (www.magic.gov.uk)	04/09/2024	Locations of statutory designated sites within 1km of the site boundary. Locations of National Site Network sites (Ramsar, Special Area of Conservation (SAC) and Special Protection Area (SPA)) within 5km of the site boundary. Locations of European Protected Species Licences (EPSL) and Class Licences within 1km.
Natural England (https://designatedsites/.naturalengland.org.uk/)	04/09/2024	Relevant statutory designated site citations.
JNCC (https://jncc.defra.gov.uk/)	04/09/2024	Information on European wildlife sites. Details of relevant Section 41 species and habitats.
Lancashire Environmental Records Network (LERN)	19/08/2024	Locally designated wildlife sites within 1km of site boundary. Records of protected and notable species within 1km of the site boundary.
Lancashire Local Biodiversity Action Plans	04/09/2024	Species and habitats which are given special conservation status at the local level.

3.3 Field Survey

3.3.1 Vegetation

3.3.1.1 The site was subject to a field survey on 13th August 2024, by Jake Healy, Ecologist at Urban Green. The weather conditions were 18°c, clear (2/8 oktas), wind speed 2 Beaufort scale.

3.3.1.2 The methods were based on the standard methodology as detailed by The UK Habitat Classification User Manual (UKHab Ltd. 2023). A UKHab Habitat Plan has been produced to demonstrate habitats within the proposed development and the surrounding area. The mapping techniques are based on The UK Habitat Classification User Manual (Butcher et al, 2020) guidance.

3.3.1.3 Flora species listed as protected in the *Wildlife and Countryside Act 1981* (as amended) and species which are indicators of important and/or uncommon habitats, were searched for during the survey.

3.3.1.4 Species abundance is described using the DAFOR scale as shown in Table 2. Percentages are an approximate indication rather than a quantitative measure.

Table 2. Key to Species Abundance

		Description	Indicative Percentage Ranges
D	Dominant	Covers most of the area	90% or greater
A	Abundant	Very common throughout the area.	50 – 90%
F	Frequent	Common or with many individuals.	20 – 50%
O	Occasional	Occurs in several places but not throughout. Populations are not large.	5 – 20%
R	Rare	Occurs in low numbers in relation to size of area.	Less than 5%
"L" will be used to indicate abundance in a localised area, e.g. LA = Locally abundant			

3.3.1.5 Any invasive species, including those listed on the revised (April 2010) Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were noted during the field survey when sighted.

3.3.2 Fauna

3.3.2.1 A site search for field signs of protected and notable fauna was undertaken, and incidental sightings are detailed. The searches completed were as follows:

- Suitability of any ponds to support notable and protected amphibians, and the suitability of the site's terrestrial habitats to support amphibians.
- Suitability of the site to support reptiles by way of habitat structure and refuge piles, as well as links to the wider landscape.
- Search of any watercourses for signs or suitability for white-clawed crayfish (*Austropotamobius pallipes*), water vole (*Arvicola amphibius*) and otter (*Lutra lutra*) by way of burrows, resting places, holts, and foraging signs.
- Suitability of the site to support notable bird species. Bird nests and droppings of notable and protected bird species.
- Suitability of the site to support notable invertebrates.
- Search of the site for any invasive species.

- Badger (*Meles meles*) field signs such as setts, mammal, paths, snuffle holes and latrines.
- Suitability of the site to support notable terrestrial mammals including harvest mouse (*Micromys minutus*) and brown hare (*Lepus europaeus*).

3.4 Bat Assessment

3.4.1 Commuting and Foraging Bats

3.4.1.1 The site was assessed for its suitability for use by commuting and foraging bats.

3.4.1.2 The commuting and foraging assessment methodology is based on information contained within the Bat Conservation Trust guidelines 4th edition (Collins, 2023). The categorisation within this report is based on that set out in Table 3, which is used as a basis for determining the requirement for further surveys.

Table 3. Suitability of Site for Foraging and Commuting Bats (adapted from Collins, 2023)

Category of Suitability	Typical Characteristics
High Suitability	Continuous high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting or foraging bats such as; river valleys, streams, hedgerows, lines of trees or woodland edge. Site is close to or connected to known roosts.
Moderate Suitability	Continuous habitat connected to the wider landscape that could be used by commuting bats such as lines of trees, scrub or linked back gardens. Habitat connected to wider landscape that could be used for bats for foraging such as; trees, scrub, grassland or water.
Low Suitability	Habitat that could be used by small number of commuting bats such as; defunct hedgerow, isolated features not well connected to surrounding habitat or Isolated habitat that could be used by a small number of foraging bats such as a lone tree or patch of scrub.
Negligible Suitability	No features on site suitable for use by commuting and foraging bats.

3.5 Constraints to the Survey

3.5.1.1 Whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment.

3.5.1.2 This PEA does not constitute a full botanical survey. The protected species assessment provides a view of the likelihood of protected species occurring on the site based on the known distribution of species in the local area and the suitability of the habitat.

3.5.1.3 It should not, however, be taken as providing a full and definitive survey of any protected species group.

3.5.1.4 Where a lack of records is found during the desk search for a defined geographical area, it does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded.

3.5.1.5 The conclusions and recommendations detailed in this report are based upon the site redline boundary and the development proposals as outlined by the client at the time of writing. Should there be any changes to the site redline boundary or development proposals at a later stage, this assessment should be reviewed to determine whether any amendments or additional survey work is required.

3.5.1.6 The findings of this report represent the professional opinion of qualified ecologists and do not constitute professional legal advice. The client may wish to seek professional legal interpretation of the relevant wildlife legislation cited within this document.

3.6 Lifespan of Report

3.6.1.1 In accordance with CIEEM's Advice Note on the Lifespan of Ecological Reports and Surveys (CIEEM, 2019), the details of this report will remain valid for a period of **18 months** from the date of the survey (i.e. until 13th February 2026). After this date, this assessment should be reviewed to determine whether any updated surveys are required.

3.7 Definitions

3.7.1.1 For the purposes of this report, the term 'protected and notable species' relates to:

- Species included on Schedules 2 and 4 of *The Conservation of Habitats and Species Regulations 2017*;
- Species included on Schedules 1, 5 and 8 of the *Wildlife and Countryside Act 1981* (as amended), excluding species that are only protected in relation to their sale (see section 9[5] and 13[2]);
- Invasive non-native species included on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended);
- Species of principal importance for the conservation of/maintaining and enhancing biodiversity as required under: Section 41 of the *Natural Environment and Rural Communities Act 2006* (England), Section 7 of the *Environment (Wales) Act 2016*, Section 2[4] of the *Nature Conservation (Scotland) Act 2004*;
- Local species of importance as identified within various local biodiversity action plans; and,
- Badgers, which are protected under the *Protection of Badgers Act 1992*.

4 Baseline Ecological Conditions

4.1 Site Context

4.1.1.1 The site lies within the rural settlement of Barrow, Lancashire predominantly surrounded by agricultural land, with the associated development of the village of Barrow present immediately north of the site.

4.1.1.2 Linear hedgerows, blocks of woodland, and tree lines are abundant throughout the wider landscape, demarcating field boundaries and providing an array of green corridors.

4.1.1.3 The River Calder runs approximately 1.5km south of the site, a tributary of the River Ribble which is located approximately 2.4km west of the site at its closest point.

4.1.1.4 It is anticipated these habitats will provide suitable foraging, resting, and commuting resources within the local area for a variety of wildlife, such as birds, bats, and other terrestrial and aquatic mammals.

4.2 Designated Sites

4.2.1.1 No sites that form part of the National Site Network were located within 5km of the site boundary.

4.2.1.2 Two statutory sites were located within 2km of the site boundary comprising the Forest of Bowland Area of Outstanding Natural Beauty (AONB) and Light Clough Site of Special Scientific Interest (SSSI).

4.2.1.3 No non-statutory designated sites were located within 500m of the site boundary.

4.2.1.4 Details of identified designated sites within the search area are located within Table 4.

Table 4. Designated Sites within the Search Areas

Designated Site	Approx. Distance from Site	Details
Statutory designated sites		
Light Clough SSSI	1.6km east	Light Clough provides excellent exposures of a series of rock layers originally formed at the onset of the Namurian period of geological history, about 325 million years ago. The rock sequence includes layers of marine shale containing the fossilised remains of sea creatures known as goniatites which are used by geologists to determine the precise age of rocks formed at this time; in fact Light Clough is the type-locality for one particular goniatite species.
The Forest of Bowland AONB	1.8km east	The Forest of Bowland National Landscape is of national and international importance because of its unspoiled and richly diverse landscapes, wildlife and heritage, with outstanding heather moorland, blanket bog and rare birds.

4.2.1.5 The site also falls within the Impact Risk Zone of Little Clough SSSI, based on consultation with MAGiC.

4.3 Flora and Fauna

4.3.1.1 The following section summarises protected and/or notable species records that have been recorded within 1km of the site.

4.3.1.2 Records returned that predate the year 2000 have been filtered out as historical records that offer little value to the intended purpose of the data search in the case of this report.

4.3.1 Invertebrates

4.3.1.1 Two records of notable invertebrates were returned within the data search comprising lunar hornet moth (*Sesia bembeciformis*) and cinnabar moth (*Tyria jacobaeae*).

4.3.1.2 The closest of which was recorded approximately 900m from the dated 2006 attribute to the lunar hornet moth.

4.3.1.3 The lunar hornet moth is listed under the Lancashire Local Biodiversity Action Plan (LBAP), while the cinnabar moth is listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act (2006).

4.3.2 Vascular Plant

4.3.2.1 One record of English bluebell (*Hyacinthoides non-scripta*) was returned within the data search dated 2005 located approximately 610m from the site.

4.3.2.2 English bluebell are listed under Schedule 8 of the Wildlife and Countryside Act (WCA) (1981).

4.3.3 Amphibians

4.3.3.1 Fifty-nine records of notable amphibians were returned within the data search comprising two species; great crested newt (*Triturus cristatus*), and common frog (*Rana temporaria*).

4.3.3.2 The closest record was attributed to great crested newt located approximately 580m from the site dated 2009.

4.3.3.3 Great crested newt are listed as a European Protected Species (EPS) under the Habitats and species Regulations (2017), as well as being listed on the WCA (1981), Section 41 of the NERC Act (1981), and the Lancashire LBAP. Meanwhile common frog are listed under the Lancashire LBAP.

4.3.3.4 A MagicMap search returned one granted EPSL (2015-12648-EPS-MIT) relating to great crested newts present within 1km of the site, allowing for the damage of a resting place between 2015 and 2020.

4.3.4 Birds

4.3.4.1 A total of 31 records of protected or notable birds were returned within 1km of the site, comprising 12 different species, details of which can be found in Table 5.

Table 5. Protected or notable birds recorded within 1km

Scientific Name	Common Name	Protection	Closest Record to Site	
			Approx. Min. Distance (m)	Date
Numenius arquata	Curlew	BoCC5*, S41*****, LBAP	530m	2013
Ardea cinerea	Grey heron	LBAP	700m	2013
Passer domesticus	House sparrow	BoCC5*, S41*****, LBAP	970m	2015
Vanellus vanellus	Lapwing	BoCC5*, S41*****, LBAP	730m	2005

Scientific Name	Common Name	Protection	Closest Record to Site	
			Approx. Min. Distance (m)	Date
Acanthis cabaret	Lesser redpoll	BoCC5*, S41*****	730m	2004
Poecile palustris	Marsh tit	BoCC5*, S41*****	730m	2004
Ficedula hypoleuca	Pied flycatcher	BoCC5**	730m	2004
Tringa totanus	Redshank	BoCC5**, LBAP	730m	2005
Gallinago gallinago	Snipe	BoCC5**, LBAP	730m	2004
Muscicapa striata	Spotted flycatcher	BoCC5*, S41*****, LBAP	730m	2004
Strix aluco	Tawny owl	BoCC5**	540m	2013
Passer montanus	Tree sparrow	BoCC5*, S41*****, LBAP	730m	2005

* Red list of BoCC5 (2021)
** Amber list of BoCC5 (2021)
*** Black list BoCC5 (2021)
**** Section 41 of the NERC Act (2006)
***** Schedule 1 of the WCA (1981)

4.3.5 Bats

4.3.5.1 Seven records of bats were returned during the data search, including records of unidentified bat (*Chiroptera* sp.), unidentified pipistrelle (*Pipistrellus* sp.), unidentified *Myotis* sp., common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), noctule (*Nyctalus noctule*), and brown long-eared (*Plecotus auritus*).

4.3.5.2 The closest record was that of an unidentified pipistrelle species present approximately 480m from the site dated 2009.

4.3.5.3 All species of bats in the UK are listed as EPS through the Habitats and Species Regulations (2017) and are further listed under the WCA (1981). Brown long-eared, noctule, soprano pipistrelle, and *Myotis* species are further listed under Section 41 of the NERC Act (2006) and the Lancashire LBAP.

4.3.5.4 MAGIC also detailed the presence of two granted EPSL within 1km of the site. The closest of which (Ref: EPSM2011-3043) allowed for the destruction of a resting place for common pipistrelle between 2011 – 2013, located approximately 180m from the site.

4.3.6 Hedgehog

4.3.6.1 Four records of hedgehog (*Erinaceus europaeus*) were returned with 1km of the site, with the closest record located approximately 700m from the site dated 2020.

4.3.6.2 Hedgehog are listed on Section 41 of the NERC Act (2006) and are a Priority Species on the Lancashire LBAP.

4.3.7 Brown Hare

4.3.7.1 Two records of brown hare (*Lepus europaeus*) were returned within the data search, the closest of which was located approximately 630m from the site dated 2013.

4.3.7.2 Brown hare are listed under Section 41 of the NERC Act (2006) and the Lancashire LBAP.

4.3.8 Badger

4.3.8.1 A single record of badger was returned within the data search located approximately 730m from the site, dated 2014.

4.3.8.2 Badger are listed under the Protection of Badgers Act (1992).

4.3.9 Fish

4.3.9.1 A single record of European eel (*Anguilla anguilla*) was returned within the data search, located approximately 770m from the site dated 2011.

4.3.9.2 European eel are listed under Section 41 of the NERC Act (2006) and the Lancashire LBAP.

4.3.10 Invasive Non-native Species

4.3.10.1 Fauna

4.3.10.2 Four records of invasive fauna were returned within 1km of the site comprising American mink (*Neovison vison*) and grey squirrel (*Sciurus carolinensis*), with the closest record located approximately 730m from the site in 2007 attributed to American mink.

4.3.10.3 Flora

4.3.10.4 Ten records of invasive non-native plant species were returned within 1km of the site, comprising Diel's cotoneaster (*Cotoneaster dielsianus*) hollyberry cotoneaster (*Cotoneaster bullatus*), Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*), and montbretia (*Crocosmia pottsii x aurea = C. x crocosmiiflora*).

4.3.10.5 The closest record to site was attributed to montbretia, located approximately 610m from the site in 2005.

4.3.11 No Records Returned

4.3.11.1 The data search returned no records for:

- Reptiles
- White-clawed crayfish
- Hazel dormice (*Muscardinus avellanarius*)
- Red squirrel (*Sciurus vulgaris*)
- Water vole
- Otter

4.4 Field Survey

4.4.1.1 The site habitats and accompanying Target Notes are presented in the UKHab Habitat Map in Figure 2.

4.4.1.2 Secondary codes are added to confirm the identity of a habitat (when necessary), and also to provide information on management and the environment relating to that habitat parcel. The number and type of secondary codes added to a primary habitat will vary depending on the habitats present. There is no limit to the number of secondary codes that can be used for a single parcel. More details regarding the secondary codes used can be found in Appendix 2.

4.4.1.3 Associated photographs of the site can be found in Figure 4.

4.4.2 Hardstanding

4.4.2.1 The majority of the site comprised a large car park that's serves the restaurant located off-site to the north.

4.4.3 Modified Grassland

4.4.3.1 The main habitat on site comprises areas of modified grassland that provide amenity value to the site.

4.4.3.2 The grassland swards are regularly managed exhibiting a short sward height and share a similar species composition which includes perennial rye grass (*Lolium perenne*), Yorkshire fog (*Holcus lanatus*), cock's-foot (*Dactylis glomerata*), sweet vernal grass (*Anthoxanthum odoratum*), white clover (*Trifolium repens*), dandelion (*Taraxacum agg.*), creeping buttercup (*Ranunculus repens*), daisy (*Bellis perennis*), and common selfheal (*Prunella vulgaris*).

4.4.3.3 Overall, the species diversity of these grasslands is relatively low with a lack of herbs and forbs present.

4.4.3.4 A pile of grass cuttings (TN1) was present within the south-western corner of the site.

4.4.4 Introduced Shrub

4.4.4.1 A small garden area with introduced shrubbery is present along the western boundary of the site which provides additional aesthetic value to the site with small walkways present and a single bench.

4.4.4.2 This area has various scattered trees present, including wild cherry (*Prunus avium*), birch (*Betula sp.*), and willow (*Salix sp.*). As such, much of this area falls under the tree canopy.

4.4.4.3 Shrubs present include rose (*Rosa sp.*), privet (*Ligustrum sp.*), Japanese maple, buddleia (*Buddleja davidii*), Japanese meadowsweet (*Spiraea japonica*), lauristinus (*Viburnum tinus*), and ivy (*Hedera helix*).

4.4.4.4 Areas of bare ground are also present.

4.4.5 Brook

4.4.5.1 A small stretch of an unnamed brook briefly runs through the site, within the garden area.

4.4.5.2 This brook was holding little water at the time of survey with less than 10cm of water in the channel. The bed comprised of sand and silt and the banks were shallow sloping comprised of earth.

4.4.5.3 Pendulous sedge (*Carex pendula*), water horsetail (*Equisetum fluviatile*), and ferns (*Dryopteris sp.*) were all identified growing within the channel or along the embankment.

4.4.5.4 The brook culverted through the site at its northern end and flowed off site to the south.

4.5 Site Suitability for Protected and Notable Species

4.5.1 Species Discounted from Assessment

4.5.1.1 Water vole, otter and white-clawed crayfish (*Austropotamobius pallipes*) have been discounted from assessment as no suitable aquatic habitats are located on site or within proximity. The unnamed brook that partly flows through the site is not deemed to be suitable to support any of these species, due to its small size and limited water table.

4.5.1.2 Hazel dormouse (*Muscardinus avellanarius*) mainly occur in southern counties, especially in Devon, Somerset, Sussex and Kent. There are few recorded localities north of the Midlands, though they are present in parts of the Lake District and in scattered Welsh localities (Matthews *et al*., 2018). The species are not generally known to be present within the area (Wembridge *et al*., 2016). The habitats on site are of limited value due to limited areas of extensive woodland and scrub. As such, the species are reasonably discounted from site.

4.5.1.3 Red squirrel have been discounted from the assessment. Red squirrel populations are limited to small areas of northern England and are not known to be present in the area; with no previous records returned in the data search. It is anticipated that high abundances of grey squirrel (*Sciurus carolinensis*) are present within this region (Shuttleworth/RSST n.d.). This species will displace red squirrel through competition as well as cause increased red squirrel mortality through the spread of squirrel pox (The Mammal Society, 2020).

4.5.2 Vascular Plants

4.5.2.1 The site provides little opportunity for the establishment of notable vascular plants, due to the limited natural habitat present and intense.

4.5.2.2 The small areas of habitat present are subject to regular management regime which will provide a further barrier to the establishment and colonisation of notable plant species.

4.5.2.3 As such, notable vascular plant species have been reasonably discounted from the site.

4.5.3 Invertebrates

4.5.3.1 No deadwood or high floristic diversity was located on site which would provide an important resource for invertebrates during their life cycle.

4.5.3.2 It is anticipated common species, associated with managed grassland and non-native shrubbery will be present due to the habitat types located on site.

4.5.3.3 Overall, the presence of notable invertebrates within the site is reasonably discounted.

4.5.4 Amphibians

4.5.4.1 No ponds were located onsite, though a single pond (P1) was located within 250m of the site boundary.

4.5.4.2 P1 is separated from the site by Clitheroe Road and other residential developments, which would likely act as a barrier to amphibian dispersal, furthermore P1 appears to be a large ornamental pond associated with a number of houses set back from Clitheroe Road.

4.5.4.3 As great crested newts' upper dispersal limit is generally considered to be up to 250m from a waterbody (though occurrence of greater distances does exist), great crested newts are not anticipated to be present on site (English Nature, 2001).

4.5.4.4 The site comprised a mosaic of habitats which may provide suitable foraging resources and cover for common amphibians such as common toads, including the unnamed brook. Other ornamental water bodies may be located within nearby residential gardens which may provide suitable conditions for breeding common amphibians.

4.5.4.5 The presence of great crested newts within the site is reasonably discounted, though common amphibians may occur on site.

4.5.5 Reptiles

4.5.5.1 The site was found to provide limited value for reptiles, given the majority of the site comprised modified grassland and hardstanding areas, which lack the structure and habitat quality to support the species group.

4.5.5.2 The shrubs could provide some terrestrial cover for the species, though these are generally confined to the boundaries and are relatively small in extent and isolated from other suitable habitat.

4.5.5.3 Overall, the habitats on site were of limited value and no records of the species group were identified. Reptiles are not considered to be present on site.

4.5.6 Birds

4.5.6.1 The site offers suitable habitats for nesting birds, such as trees and other shrubs.

4.5.6.2 Several bird species were observed during the field survey within the site extent, including blackbird (*Turdus merula*), great tit (*Parus major*), wood pigeon (*Columba palumbus*), and magpie (*Pica pica*).

4.5.6.3 As a result, it is likely that birds use these habitats to nest in during the nesting season.

4.5.6.4 The site provides little value to ground nesting and over wintering birds with no suitable habitats present on site.

4.5.6.5 The site provides suitable habitats for passerine birds to use for nesting and may occasionally be used by birds of prey for foraging/perching.

4.5.7 Bats

4.5.7.1 The habitats on site provide little suitability for bats. The trees on site were not seen to provide any suitable PRFs during the field survey with the majority of trees comprising single stems with no damage that would provide suitable cavities for roosting.

4.5.7.2 There is a lack of linear features on site that may provide foraging and commuting opportunities for bats. Though, the grassland area and introduced shrub will likely provide a low level of foraging opportunity.

4.5.7.3 There is negligible bat roosting potential present on site though the grassland and introduced shrub habitat provide 'low' foraging and commuting value.

4.5.8 Hedgehog

4.5.8.1 The grassland and shrub habitats will provide suitable cover and foraging opportunities for the species.

4.5.8.2 Hedgehog are potentially present within the site.

4.5.9 Badger

4.5.9.1 No evidence of badger was identified on site during the field survey.

4.5.9.2 However, the grassland provides a suitable foraging resource for the species group and the wider landscape provides expanses of optimal habitat.

4.5.9.3 Badger are a highly mobile and opportunistic species group, that are known to inhabit a wide array of habitats including areas of urban development.

4.5.9.4 While no evidence of the species group was identified on the site, the surrounding landscape offers suitable opportunities and records of badger were returned within the data search, confirming the presence of the species in the landscape.

4.5.9.5 As such, badger cannot be reasonably discounted from the site, however activity is likely to be restricted to commuting and foraging.

4.6 Invasive Species

4.6.1 Flora

4.6.1.1 No invasive, non-native species were present on the site at the time of the field survey. However, it should be noted that some invasive non-native plants are very fast spreading and therefore the potential for these species to be introduced to the site at a later date cannot be ruled out.

5 Ecological Constraints and Recommended Mitigation

5.1 Proposed Development

5.1.1.1 The proposals for the site include the development of a two-storey hotel with accommodation for 38 bedrooms, supplemented by associated hard and soft landscaping.

5.2 Designated Sites

5.2.1.1 The site is located within the Impact Risk Zone of Little Clough SSSI. It is anticipated that the designated site is a sufficient distance away and is separated by anthropogenic barriers such as other areas of urban development, that no impacts because of the proposed construction works are anticipated.

5.3 Habitats

5.3.1.1 The site comprised habitats that were found to be widespread within the local area; however, they did contain value for wildlife such as bats, birds, and terrestrial mammals. The modified grassland, introduced shrub, and scattered trees are of highest value.

5.3.2 Trees

5.3.2.1 No trees are proposed for removal; with all to be retained.

5.3.2.2 Generally, the protection measures of retained trees will be through the use of temporary protective demarcation fencing to protect the trees and shrubs. The fencing must extend outside the canopy of the retained trees and must remain in position until all plots have been developed to ensure protection is provided throughout the construction phase.

5.3.2.3 The fencing will be in accordance with BS 5837:2012 Trees in Relation to Design, Demolition and Construction: Recommendations.

5.3.2.4 It is recommended that replacement tree planting at a 1:3 ratio is required to compensate for loss of any trees. It is recommended that the planting comprises native species and species known to be of value for the attraction of wildlife. This will include fruiting and flowering species.

5.4 Fauna

5.4.1 Amphibians

5.4.1.1 Great crested newts were deemed unlikely to be present on site and no further consideration for the species is required. However, there is a possibility that common amphibians such as common toad may be present on site.

5.4.1.2 It is recommended that Reasonable Avoidance Measures are to be followed during site clearance. All site contractors are to be inducted to the potential presence of the species. Any debris is to be cleared by hand, and any common amphibians located moved carefully, by hand, to outside of the development area.

5.4.2 Birds

5.4.2.1 Any tree or shrub removal should be undertaken outside of the breeding bird season (March to September, inclusive). If this is not possible, a suitably experienced ecologist should check the habitat for breeding bird activity no more than 48 hours before clearance. If nesting activity is found, nests must be left in situ until the young have fledged.

5.4.2.2 The site has been assessed to provide some suitable habitat for nesting birds, therefore it is recommended that the landscape scheme for this site contains a range of habitats such as scrub and trees, which will provide suitable shelter and nesting habitat for a range of bird species which are likely to be present in the surrounding area.

5.4.3 Bats

Foraging and Commuting Bats

5.4.3.1 The site was assessed as being of low value to commuting and foraging bats. It is recommended that the landscape designs for this site contain a mix of native plant species and those known to be of value to native invertebrate species, providing additional value to local bat populations as a foraging resource.

5.4.3.2 Slow-flying species such as brown long-eared and Myotis species, which are known to be in the local area, are sensitive to lighting and may be impacted by the proposed development, should no mitigation for lighting be considered.

5.4.3.3 Lighting mitigation should follow the guidance outlined in the Institute for Lighting Engineers document "Guidance for the Reduction of Obtrusive Lighting" (2005) and BCT's "Bats and Artificial Lighting in the UK" (2018).

5.4.3.4 Construction lighting should not be directed towards retained and surrounding habitats including the broadleaved woodland and grassland. The construction lighting may impact bats which are sensitive to light. Directional lighting will be achieved by angle and orientation of beam, use of a cowl, louvre or other light shield, or a combination of these.

5.4.3.5 An External Lighting Scheme is to be produced for the site. The following recommendations are to be considered within the scheme during its condition, to minimise impacts of lighting. The recommendations are as follows:

- Keep site lighting to minimum levels.
- Luminaries should lack UV elements and preferably LED lighting with a warm white light should be used over cool white light (ideally <2700Kelvin).
- Lighting should feature peak wavelengths greater than 550nm.
- Internal lighting should be positioned away from windows to minimise light spill, where appropriate.
- Light placement should be downward facing to prevent excess horizontal or vertical light spill.
- The use of integrated fittings such as cowls, shields, louvres, and hoods, that effectively contain light spill from unintended areas, where appropriate.
- The use of hard landscaping features to block light and create dark corridors.
- Avoid illuminating any suitable retained bat habitats, particularly the treeline that is a potential commuting and foraging habitat for bats.
- Use of timed security lights should be set on motion-sensors and using short, 1-minute timers, to minimise light use, where appropriate.
- Column heights of lighting can be considered to minimise light spill.

5.4.4 Hedgehog

5.4.4.1 Hedgehog may be present on site, as such checks for hedgehogs should be carried out prior to shrub removal to avoid harming this species during works.

5.4.5 Badgers

5.4.5.1 Badger have been assessed as being potentially present on site through commuting and foraging.

5.4.5.2 As such, the following Precautionary Working Methods will be adhered to during construction phase to ensure that no badgers are impacted by the proposed development:

- All site operatives will be inducted to the potential presence of the species and the species legal protection.
- All site operatives will be inducted as to identifying potential badger setts and should be vigilant if they suspect they locate a new sett during works and inform the site manager immediately. A minimum 20m buffer will be maintained from the potential sett until an ecologist has been to site.
- All excavations will be battened at a 45-degree angle or ramps to be positioned to allow escape should animals become trapped.
- All site machinery and materials will be appropriately stored to avoid harm to the species, notably between July and November each year when extra care is needed to avoid potential impacts on pregnant females.

6 Further Surveys

6.1.1.1 Based on the proposals for the site at the time of writing, no further surveys are required in order for the project to move forward.

7 Opportunities for Enhancement

7.1.1.1 The National Planning Policy Framework (NPPF) (2024) highlights the requirement for planning policies and decisions to conserve and enhance the natural environment.

7.1.1.2 Paragraph 187 states that this should be achieved by (in terms of this assessment only):

a) *protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*

d) *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*

7.1.1.3 Specific enhancement recommendations for the site include the following:

- Bat and bird boxes could be placed on the new buildings / retained trees. A plan to show the locations of these boxes and the specifications should be produced by a suitably qualified ecologist once the layout is finalised.
- Planting of linear features such as hedgerows and trees, especially around the boundary grassland at the south and west of the site, to add commuting features within the site.
- An ecologically sensitive planting scheme could be incorporated on the site to promote invertebrate use of the site, which could benefit local bat and bird species.

8 Conclusion

8.1.1.1 The PEA has met the objectives of the report, by demonstrating the following:

8.1.1.2 The major habitats identified on site included modified grassland, introduced shrub, a brook, and hardstanding and are detailed in Section 4.

8.1.1.3 Potential ecological constraints and subsequent mitigation recommendations to be completed prior to and during the construction phase for common amphibians, nesting birds, bats, hedgehog, and badgers are detailed in Section 5.4.

8.1.1.4 No further surveys are required to determine presence or absence and inform relevant mitigation requirements.

8.1.1.5 General ecological enhancements are listed within Section 7.

9 References

Bat Conservation Trust and Institute of Lighting Professionals (2018). Bats and artificial lighting in the UK – Bats and the Built Environment Series.

British Hedgehog Preservation Society / People's Trust for Endangered Species (2019). Hedgehogs and Development. BHPS / PTES.

CIEEM (2019). Advice Note on the Lifespan of Ecological Reports and Surveys. CIEEM.

CIEEM (2019). Guidelines for Preliminary Ecological Appraisal. CIEEM.

Collins (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines (Fourth Edition). The Bat Conservation Trust, London.

Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 723-747. Available online at https://britishbirds.co.uk/content/status-our-bird-populations.

English Nature (2004). Bat Mitigation Guidelines. English Nature, Peterborough.

Gent, A.H & Gibson, S.D. (2003) Herpetofauna Workers' Manual. Joint Nature Conservation Committee, Peterborough.

Google Earth (2002). Historical aerial imagery of the site.

Harris S., Cresswell P., Jefferies D. (1989). *Surveying Badgers*. The Mammal Society.

JNCC (2004). Bat Workers Manual. JNCC, Peterborough.

Mathews, F., Kubasiewicz, L.M., Gurnell, J., Harrower, C.A., McDonald, R.A., and Shore, R.F. (2018). A review of the population and conservation status of British mammals.

Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001), Great crested newt conservation handbook, Froglife, Halesworth.

Oldham, R.S., Keeble, J., Swan, M.J.S., and Jeffcote, M. (2000). Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*). Herpetology Journal 10 (4), 143-155.

Shuttleworth, C., RSST (n.d.). Red and grey squirrels distribution in the British Isles in 1945 and 2010.

UKHab Ltd (2023). UK Habitat Classification Version 2.0 (at: https://www.ukhab.org).

Wembridge, D., Al-Fulaij, N. and Langton, S. (2016). The State of Britain's Dormice 2016. Population index, p.100.

Appendix 1 – Relevant Legislation

Legislation relating to European Protected Species (e.g. bats, otter, great crested newt)

European Protected Species and their resting places (e.g. bat roosts) are protected under the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way (CRoW) Act 2000, and the Conservation of Habitats and Species Regulations 2017.

The Conservation of Habitats and Species Regulations 2017 transpose the European Union's 'Habitats Directive' (Council Directive 92/43/EEC) on the Conservation of Natural Habitats and of Wild Fauna and Flora (EC Habitats Directive) into UK law. The Regulations provide for the designation and protection of 'European Sites', the protection of 'European Protected Species' (EPS), and the adaptation of planning and other controls for the protection of European Sites. EPS are listed on Schedule 2 of the Conservation of Habitats and Species Regulations 2017.

Under the Wildlife and Countryside Act 1981 (as amended) it is an offence to:

- Intentionally kill, injure or take certain animals listed in Schedule 5;
- Intentionally or recklessly damage or destroy any structure or place which any wild animal specified in Schedule 5 uses for shelter or protection;
- Intentionally or recklessly disturb any such animal while it is occupying a structure or place which it uses for shelter or protection; or
- Intentionally or recklessly obstruct access to any structure or place which any such animal uses for shelter or protection.

In addition, under this legislation there are offences relating to sale, possession and control of wild animals listed in Schedule 5.

Under the Conservation of Habitats and Species Regulations 2017 it is an offence to:

- Deliberately capture, injure or kill any wild animal listed as a European Protected Species;
- Deliberately disturb wild animals of any such species in such a way as to be likely:
- to impair their ability:
    - to survive, to breed or reproduce, or to rear or nurture their young, or;
    - in the case of animals of a hibernating or migratory species, to hibernate or migrate, or;
- to affect significantly the local distribution or abundance of the species to which they belong.
- Deliberately take or destroy the eggs of such an animal, or;
- Damage or destroy a breeding site or resting place of such an animal.

In addition, under this legislation there are offences relating to possession, control sale and exchange of an EPS.

Great crested newt, otter and several species of bat are listed as a SoPI under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.

Legislation for amphibians (other than great crested newt)

Under the Wildlife and Countryside Act 1981 (as amended) the four widespread amphibian species, smooth newt (*Triturus vulgaris*), palmate newt (*Triturus helveticus*), common toad (*Bufo bufo*) and common frog (*Rana temporaria*) receive limited protection through section 9(5) only which makes selling, offering for sale, possessing or transporting for the purpose of sale (live or dead animal, part or derivative) an offence.

Common toad is listed as a SoPI under Section 41 of the NERC Act 2006.

Legislation relating to breeding birds

All birds, their nests and eggs are protected by the Wildlife and Countryside Act 1981 (as amended) and it is an offence, with certain exceptions, to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy the egg of any wild bird; and
- Intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building or is in, on or near a nest with eggs or young; or disturb the dependent young of such a bird.

Schedule 1 of the Wildlife and Countryside Act 1981 provides further protection for selected species (including peregrine falcon (Falco peregrinus), barn owl (Tyto alba), little ringed plover (*Charadrius dubius*) and black redstart (*Phoenicurus ochruros*) during the breeding season. If any person intentionally or recklessly disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or disturb dependent young of such a bird. That person shall be guilty of an offence.

A number of bird species are listed as SoPI under Section 41 of the NERC Act 2006.

Conservation status - Birds of Conservation Concern (Eaton et al. 2015)

The UK's leading bird conservation organisations have worked together on the third quantitative review of the status of the birds that occur regularly in the UK, updating the last review in 2011. The status of birds within the UK have been regularly monitored through a series of surveys, including the national Breeding Bird Survey, Common Bird Census, sea bird monitoring programs and wetland monitoring programs. The result of this review and continued monitoring is The Population Status of Birds in the UK, Birds of Conservation Concern 4: 2015.

Birds are assessed against criteria to place each species on one of three alert lists, red, amber or green. Red list species are considered to be of high conservation concern, being either globally threatened, having historical UK population declines, having a rapid population decline or breeding range contraction of 50% or more in the last 25 years.

Amber list species are considered to be of medium conservation concern as they meet one or more of the following criteria (but none of the red list criteria):Red listed for historical decline in a previous review but with substantial recent recovery (more than doubled in the last 25 years), a UK breeding range contraction of between 25% and 49%, a reduction of breeding or non-breeding population of 25-49% in the last 25 years, a 5-year mean of 1-300 breeding pairs in the UK, an unfavourable European conservation status, at least 50% of the UK breeding population found in 10 or fewer sites, or where the breeding population in the UK represents 20% or more of the European breeding populations.

Green list species are considered to be of low conservation concern. They include all regularly occurring species that do not qualify under any of the red or amber criteria are green listed. The green list also includes those species listed as recovering from Historical Decline in the last review that have continued to recover and do not qualify under any of the other criteria.

Legislation relating to badger

Badgers are protected under the Protection of Badgers Act 1992 (as amended) which makes it an offence to:

- wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so;
- intentionally or recklessly damage, destroy or obstruct access to a badger sett; and
- disturb a badger when it is occupying a sett.

These provisions have implications for construction or preparation works undertaken in the vicinity of an active sett and may be confounded by distance from the sett entrance. Any works resulting in ground penetration, vibration or noise near an identified badger sett entrance/s have the potential to disturb badgers and advice should be sought from a suitably experienced ecologist under such circumstances. If disturbance to an active sett is probable, then a licence may need to be obtained from Natural England before any works commence.

Legislation relating to invasive plant species

Several non-native invasive plant species such as Himalayan balsam, giant hogweed (*Heracleum mantegazzianum*), Japanese rose (*Rosa rugosa*), variegated yellow archangel (*Lamiastrum galeobdolon*), rhododendron (*Rhododendron ponticum*) and Japanese knotweed are listed under Schedule 9 of the Wildlife and Countryside Act, 1981 (as amended), which makes it an offence to '...plant or otherwise cause the species to grow in the wild'. This includes spreading or transferring contaminated soil from one area to another.

Estate Managers and landowners have a duty to pro-actively treat knotweed outbreaks. Under the Natural Environment and Rural Communities Act 2006 (NERC), subsection 14ZA (1), makes it is an offence to sell, offer or expose for sale, or to have in one's possession or transport for the purpose of sale, any Schedule 9 animal or plant or anything from which such an animal or plant can be propagated, including rhizomes of Japanese knotweed. Under subsection 14ZA (2) it is also an offence to publish or cause to be published any advertisement for the purchase or sale of these animals and plants.

The Environmental Protection Act 1990 (EPA 1990) contains a number of legal provisions concerning controlled waste. Any Japanese knotweed contaminated soil or plant material that is intended for discard is likely to be classified as controlled waste.

The Environmental Protection (Duty of Care) regulations 1991 also imposes a 'duty of care' on persons concerned with controlled waste, which includes any materials incorporating Japanese knotweed including soil, grass cuttings, general wastes and ash arising from the burning of knotweed. The duty applies to any person, who produces, imports, carries, keeps, treats or disposes of controlled waste. Failure to appropriately dispose of any material containing Japanese knotweed may lead to prosecution under Section 33 and 34 of the EPA 1990 and Section 14 (2) of the Wildlife & Countryside Act 1981 (as amended).

If knotweed stands are to be treated with herbicides, The Control of Pesticides Regulations (1986) applies. These regulations require any person who uses a pesticide to take all reasonable precautions to

protect the health of human beings, creatures and plants, safeguard the environment and in particular avoid the pollution of water. If pesticides are to be used in or near to a watercourse, the Environment Agency should be contacted, and approval must be sought (application to use herbicides in or near water).

Waste leaving the site must be handled responsibly and in accordance with the law at all stages between its production and final recovery or disposal. Waste must be transferred to an authorised person, who is either a registered waste carrier or exempted from registration by the Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations 1991.

Additional legislation regarding the transport of Japanese knotweed contaminated materials is covered by the Hazardous Waste Regulations 2005 (HWR 2005). This contains provisions about the handling and movement of hazardous waste. Consignment notes must be completed when any hazardous waste is transferred, which includes details about the hazardous waste properties and any handling requirements. Untreated Japanese knotweed is not classed as hazardous waste, but material containing knotweed which has been treated with certain herbicides, may be classified as hazardous waste.

If any waste soil or knotweed is sent for landfill either before or after treatment, it must go to a landfill that is authorised to receive it.

Appendix 2 - Primary and Secondary UKHab Codes

Hierarchical code	Code	Meaning
Primary Code	g4	Modified grassland
	r2b	Other rivers and streams
	u	Urban
	u1b6	Other developed land
Secondary Code	108	Frequently mown
	516	Active management
	847	Introduced shrub