ECOLOGICAL IMPACT ASSESSMENT
KIDLANDLEE, NORTHUMBERLAND

DATE:	31st March 2021
CLIENT:	Matthew Stock
PROJECT NUMBER:	4642
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A. SUMMARY

E3 Ecology Ltd was commissioned to undertake an ecological impact assessment (EcIA) of a parcel of land at Kidlandlee, near Alwinton, Northumberland, where it is proposed to construct four holiday cottages. A desk study was completed, including consultation with DEFRA's MAGIC website and the Environmental Records Information Centre North East (ERIC NE), and an ecological walkover survey was undertaken on 24th February 2021 in order to inform this assessment.

The results of the desk study indicate that there is a single statutorily protected site within 2km of the proposed development site, but this is unlikely to be affected by the proposed development. The site also lies within a Site of Special Scientific Interest (SSSI) Impact Risk Zone (IRZ); however the criteria requiring consultation with Natural England are not relevant to this development. There is a single record of a granted European Protected Species (EPS) mitigation licence affecting bats within 2km, located approximately 200m north-east of site, for which E3 completed the informative surveys and obtained the licence. Bat surveys of the site found day roosts of common pipistrelle, soprano pipistrelle and Natterer's bats (all single to low numbers of bats) No GCN mitigation licence records, survey licence returns or eDNA survey records (2017-2019) are shown within 2km of the site.

The proposed development site has an area of approximately 0.85ha and is dominated by recently planted broad-leaved woodland, on a plot of recently felled conifer plantation woodland. Given the size of the site and presence of large areas of similar habitats in the surrounding area, the development site is considered to be of up to local value for the habitats it supports.

The site provides some suitable potential nesting habitat for species such as nightjar, stonechat skylark and meadow pipit and further survey will be required if there is significant habitat loss or potential disturbance as part of the proposals . The site is considered of up to local value for foraging and commuting bats, reptiles, hedgehog, common toad and other common amphibians, and brown hare. The site is of low value to badger and otter. Other protected and priority species are considered likely to be absent.

The results of the site survey combined with the desk study have highlighted the following further ecological survey, mitigation or compensation requirements. Further work required prior to submission of a planning application is listed in **bold text**, and it should be noted that this requirement may restrict a full assessment of ecological impacts until those works are completed.

Ecological Receptor	Impact	Mitigation
Protected Sites		
Single SSSI within 2km	None anticipated.	None required.
Habitats		
Plantation woodland	Loss and damage to newly planted trees	Works will be undertaken in accordance with BS5837-2012 'Trees in relation to construction' and retained hedgerows and trees will be protected, including protection of roots. Any saplings removed will be replanted along the edges of the site where there is space to do so. The site will continue to be managed to establish a mature broad-leaved woodland, with the proposed holiday cabins nestled within the planting.

Species		
Bats	Increased lighting affecting foraging/commuting areas potentially used by bats (and other nocturnal wildlife)	Light levels around foraging/commuting areas (e.g. site boundaries) will be low level, below 2m in height, and low lux (below 1 lux 5m from the light source).
	Loss of bat foraging/commuting habitat of up to local value	Management to establish broad-leaved woodland will maintain and potentially enhance the food resource for bats and wildlife generally.
Common amphibians (excluding GCN)	Harm/disturbance to common amphibians, including common toad	Works will be undertaken to a precautionary amphibian method statement.
Birds	Harm/disturbance to nesting birds if site preparation and clearance commence during the bird breeding season	A pre-commencement check for nesting birds will be undertaken by a suitably experienced ornithologist if works are to commence between March and August inclusive.
	Loss of bird foraging and nesting opportunities of up to local value	**A single breeding bird survey visit, timed in late May to June is required to assess the potential use of the site by nightjar and other breeding bird species** if there is significant habitat loss or potential disturbance as part of the proposals**. Given that nightjar is camouflaged and nocturnal, it is recommended that the survey is either undertaken at dusk/pre-dawn or if in the daytime, including the use of a thermal imaging camera.** Management to establish broad-leaved woodland will maintain and potentially enhance the food and nesting resources for birds and wildlife generally.
Reptiles	Residual risk of disturbance / harm if present during the works.	Works will be undertaken to a precautionary method statement. It should be noted that there are records of adder in the local area, and if present this species is venomous and must not be handled by untrained persons.
Hedgehog	Harm/disturbance to hedgehog	Works will be undertaken to a precautionary hedgehog method statement.
	Loss of hedgehog foraging / sheltering habitat of local value	Management of the site to establish broad-leaved woodland will ensure that is continues to provide sheltering and foraging resources.
Wildlife (general)	Entrapment of wildlife during construction if trenches are left open overnight	Any excavations left open overnight will have a means of escape for wildlife that may become trapped in the form of a ramp at least 300mm in width and angled no greater than 45°.

The development presents an opportunity to ecologically enhance the site. The following enhancements are recommended:

- Creation of additional hedgehog/reptile/amphibian hibernacula or habitat piles.
- Provision of integrated bird nesting and bat roosting features in the new buildings on site. The exact number, types and locations are to be agreed with the council prior to installation.

The local planning authority is likely to require the means of delivery of the mitigation to be identified. It is recommended that mitigation, compensation and enhancement proposals are incorporated into the planning documents.

Further work may be required to fully assess the impacts of the development on birds, depending on site proposals. However, provided that the recommendations in this report and any following subsequent survey work are implemented, it is anticipated that proposals may proceed with no significant adverse effect on notable species and/or habitats. The proposals provide an opportunity for ecological benefit through establishment of mature broad-leaved woodland and bat and bird nest box provision, contributing to local and national conservation targets.

If you are assessing this report for a local planning authority and have any difficulties interpreting plans and figures from a scanned version of the report, E3 Ecology Ltd would be happy to email a PDF copy to you. Please contact us on 01434 230982.

B. INTRODUCTION

E3 Ecology Ltd was commissioned by Matthew Stock in February 2021 to undertake an EcIA of a proposed development site at Kidlandlee.

This assessment has been prepared taking account of the Chartered Institute of Ecology and Environmental Management's (CIEEM) "Guidelines for Ecological Impact Assessment in the UK and Ireland" (2019).

B.1 AUTHOR, SURVEYORS & QUALIFICATIONS

The author's professional qualifications and survey licences are detailed in the table below, as well as those of any additional lead surveyors who completed survey work at the proposed development site:

TABLE 1: LEAD SURVEYORS

Name	Position	Professional Qualifications	Natural England Survey Licence Numbers
Declan Ghee	Senior Ecologist	BSc ACIEEM Field Identification Skills Certificate Level 4 (certified)	2016-26454-CLS-CLS (GCN*) 2018-38363-CLS-CLS (Bats)

*GCN: Great Crested Newt

Further details of experience and qualifications are available at www.e3ecology.co.uk.

All surveyors have the knowledge, skills and experience identified within the relevant CIEEM Competencies for Species Survey guidance, or were under the supervision of a surveyor with the required competencies.

B.2 OBJECTIVES

The objectives of the assessment are to:

- Establish baseline ecological conditions and determine the importance of ecological features present or potentially present within the survey area
- Identify and describe potentially significant ecological constraints and effects associated with the proposed development
- Make recommendations for design options to avoid significant effects on important ecological resources at an early stage of development planning where possible
- Identify the potential requirement for further surveys on protected species and habitats which may be present on site
- Set out the mitigation, compensation and enhancement measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects
- Identify how these measures could be secured
- Identify any requirements for post-construction monitoring of the site

B.3 PROPOSED DEVELOPMENT SITE

The site is located in Kidlandlee, near Alwinton, Northumberland at an approximate central grid reference of NT 91097 09774.

The figures below illustrate firstly the survey boundary and secondly the broad habitats present on site and within an approximate 500m buffer zone.

FIGURE 1: SITE BOUNDARY
(Reproduced under licence from Google Earth Pro.)

FIGURE 2: SITE AND SETTING
(Reproduced under licence from Google Earth Pro.)

B.4 DEVELOPMENT PROPOSALS

It is proposed to construct four new holiday cottages on the site. No detailed development proposals are yet available.

C. METHODOLOGY

C.1 SCOPE OF STUDY

The scope of the study, in terms of the survey area and the desk study area, is based on professional judgement. The likely zone of influence of the proposal has been considered, including both potential direct effects, such as habitat loss, and potential indirect effects, such as disturbance. Consideration has been given to potential effects both during the construction and operational phases of the development.

For this site the survey area comprised the green line boundary as defined within the figures in section B.

In some circumstances field signs and habitat suitability may indicate the potential presence of nearby protected species and/or habitats off site which may fall within the zone of influence. In this scenario, if access was available the survey boundary was extended to include these areas. If access was not possible at the time of initial survey, the ecological impact assessment and required mitigation measures have been prepared taking into account this limitation.

The desk study included an assessment of land-use in the surrounding area and a data search covering a 2km buffer zone (see below for further detail).

The following types of ecological receptors have been considered:

- Statutorily designated sites for nature conservation
- Non-statutorily designated sites for nature conservation
- Species protected by law
- Species and/or habitats listed under the NERC Act (2009) as being of principal importance for conservation of biodiversity
- Species and/or habitats listed in relevant local biodiversity action plans

Further details on planning and legislative context are provided in the appendices of this report.

C.2 DESK STUDY

Initially, the site was assessed from aerial photographs and 1:25,000 Ordnance Survey maps.

Following this, a data search was submitted to the Local Records Centre in March 2021, requesting data relating to protected or otherwise notable species and non-statutory sites for nature conservation within 2km of the survey area.

In addition, a search was made of the MAGIC website[1] for all statutorily protected sites for nature conservation within 2km of the survey area, as well as notable habitats or species records.

C.3 FIELD SURVEY

An ecological walkover survey of the site was completed, comprising a phase 1 habitat survey and a preliminary appraisal for protected and otherwise notable species.

[1] MAGIC Website: www.magic.gov.uk

C.3.1 METHODOLOGY

C.3.1.1 PHASE 1 HABITAT SURVEY

The field survey of the proposed site was conducted using the methodology of the Joint Nature Conservation Committee's Phase 1 Habitat Survey, as outlined in their habitat-mapping manual[2]. Each parcel of land was assessed by a trained surveyor and classified as one of ninety habitat types. These were then mapped and the habitat information supplemented by dominant and indicator species codes and target notes where appropriate. Where areas within the study area do not fall into the Phase 1 Habitat Survey classification, alternative methods of classification have been used.

C.3.1.2 PRELIMINARY PROTECTED/NOTABLE SPECIES APPRAISAL

A preliminary appraisal of the site was completed in order to search for field signs or evidence of protected or notable[3] species and to assess the suitability of habitats to support such species.

When conducting the survey, particular focus was concentrated on, but not restricted to, the following taxa:

- Amphibians, including great crested newt (GCN)
- Badger
- Bats
- Birds
- Brown hare
- Fish
- Notable butterfly species
- Non-native invasive species
- Otter
- Red squirrel
- Reptiles
- Water vole
- White-clawed crayfish

Assessment of habitat suitability to support such species was based on professional judgement and experience, species-specific habitat preferences, knowledge of local and broad geographical species distribution and connectivity to other areas of suitable habitat.

Where it is considered likely that there is a significant risk of protected or otherwise notable species being affected, or where habitats are of particularly high value, additional specialist survey work has been recommended. Further survey work may also be recommended where development proposals have the potential to affect statutorily designated sites in the vicinity.

BATS

Where present, the bat roosting suitability of any buildings/structures and trees on site, or within the zone of influence, were appraised in accordance with the guidelines provided within the Bat Conservation Trust Bat Survey: Good Practice Guidelines[4] and detailed within the table below.

TABLE 2: ASSESSMENT OF BAT ROOSTING SUITABILITY OF BUILDINGS/STRUCTURES & TREES
(TO BE APPLIED USING PROFESSIONAL JUDGEMENT, TAKEN FROM TABLE 4.1 OF BCT'S BAT SURVEY GUIDELINES)

Suitability	Roosting Habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats

[2] Handbook for Phase 1 habitat survey, A Technique For Environmental Audit, JNCC, 2010
[3] To include national priority species as listed in Section 41 of the NERC Act (2006) and local or regional priority species as listed within the relevant Biodiversity Action Plan
[4] Collins, J. (ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition). Bat Conservation Trust

	opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation). A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A building/structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).
High	A building/structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Note that any comments within this report on the state or condition of buildings/structures relate solely to their potential use by bats and must not be taken as a professional assessment of the structural integrity or safety of the structures.

GREAT CRESTED NEWTS

With specific reference to great crested newts, the breeding suitability of any ponds on site or within 500m (where present and accessible) were appraised using the Habitat Suitability Index[5] (HSI). This method provides a numerical index of between 0 and 1 to aid in assessing habitat suitability in an objective manner, 0 indicating unsuitable habitat and 1 representing optimal habitat. The HSI for the great crested newt incorporates ten factors which are considered to have a significant effect on habitat suitability:

- Geographic location
- Pond area
- Pond permanence
- Water quality
- Pond shading
- Presence of waterfowl
- Presence of fish
- Pond density in local area
- Terrestrial habitat suitability
- Pond macrophyte cover

Once field data is collected, the values recorded for each factor are converted to a value between 0 and 1, and the following calculation provides the overall score.

$$HSI = (SI_1 * SI_2 * SI_3 * SI_4 * SI_5 * SI_6 * SI_7 * SI_8 * SI_9 * SI_{10})^{1/10}$$

The score is then classified into one of five suitability categories from “poor” to “excellent”.

C.3.2 SURVEY EQUIPMENT

The following equipment was used during the phase 1 habitat survey:

- Binoculars
- Digital Camera

C.3.3 ENVIRONMENTAL CONDITIONS

The table below details the environmental conditions during the survey.

[5] Oldham *et al*, 2000.

TABLE 3: SURVEY CONDITIONS				
Date	**Temperature (^{0}C)**	**Cloud Cover (%)**	**Precipitation**	**Wind Conditions (Beaufort scale)**
24/02/2021	6	100	Dry	4

C.4 SURVEY CONSTRAINTS

Certain plant species may not be identifiable throughout the year. However, it is considered that sufficient botanical identification was possible to facilitate a robust assessment of habitats for the purposes of this report.

C.5 ASSESSMENT METHODOLOGY

The relative value of the ecological receptors (habitats, species and designated sites) was assessed using a geographical frame of reference. For designated sites this is generally a straightforward process with the assigned designation generally being indicative of a particular value, e.g. Sites of Special Scientific Interest are designated under national legislation and are therefore generally considered to be receptors of national value. The assignment of value to non-designated receptors is less straightforward and as recognised by the Guidelines for Ecological Impact Assessment produced by CIEEM[6], is a complex and subjective process and requires the application of professional judgement.

When assessing the value of species and habitats, relevant documents and legislation are considered including the lists of species and habitat of principal importance annexed to the NERC Act (2006) and those provided within relevant local Biodiversity Action Plans. Data provided through consultation is also considered. These data sources can provide context at a local, regional and national scale.

The table below provides examples of receptors of value at different geographical scales.

TABLE 4: ECOLOGICAL RECEPTOR VALUATION	
Level of Value	**Examples**
International	An internationally designated site or candidate site.
	A site meeting criteria for international designation.
	A substantial* area of a habitat listed on Annex I of the EC Habitats Directive or smaller areas of such habitat, which are considered likely to be essential to maintain the functionality of a larger whole.
	The site is of functional importance** to a species population with internationally important numbers (i.e. >1% of the biogeographic population)
National	A nationally designated site.
	A substantial* area of a habitat listed as a Habitat of Principal Importance within Section 41 of the NERC Act (2006) or smaller areas of such habitat, which are considered likely to be essential to maintain the functionality of a larger whole.
	The site is of functional importance** to a species population with nationally important numbers (i.e. >1% of the national population)
Regional	An area of habitat that falls slightly below the criteria necessary for designation as a SSSI but is considered of greater than county value.
	The site is of functional importance** to a species population with regionally important numbers (i.e. >1% of the regional population)
County	A Local Wildlife Site (LWS) or equivalent, designated at a County level

6 Chartered Institute for Ecology and Environmental Management (2019) Guidelines for Ecological Impact Assessment in the UK and Ireland - Terrestrial, Freshwater and Coastal

TABLE 4: ECOLOGICAL RECEPTOR VALUATION	
Level of Value	**Examples**
	A substantial* area of a habitat listed within the relevant County Biodiversity Action plan or smaller areas of such habitat, which are considered likely to be essential to maintain the functionality of a larger whole.
	The site is of functional importance** to a species population of county value (i.e. >1% of the county population)
District	A Local Wildlife Site (LWS) or equivalent, designated at a District level
	A substantial* area of a habitat listed within the relevant District Biodiversity Action plan or smaller areas of such habitat, which are considered likely to be essential to maintain the functionality of a larger whole.
	The site is of functional importance** to a species population of district value (i.e. >1% of the district population)
Parish	Area of habitat or species population considered to appreciably enrich the habitat resource within the context of the parish.
	Local Nature Reserves
Local	Habitats and species that contribute to local biodiversity but are not exceptional in the context of the parish.
Low	Habitats that are unexceptional and common to the local area.
Substantial defined as 'of considerable size or value within that area based on professional judgement, rather than a small, inconsequential area'* * Functional importance defined as 'a feature which, based on professional judgement, is of importance to the day to day functioning of the population, the loss of which would have a detectable adverse effect on that population',*	

D. RESULTS

D.1 DESK STUDY

D.1.1 PRE-EXISTING INFORMATION

D.1.1.1 ORDNANCE SURVEY MAPPING AND AERIAL PHOTOGRAPHY

The figures in Section B show that the general land use in the surrounding area is mature and felled conifer plantation woodland, associated with Kidland Forest, owned and managed by the Forestry Commission, and upland grazed pasture. There are several buildings to the north of the site, and the River Alwin lies to the east, approximately 750m away within the valley.

The most recent aerial photograph of the site (2020) indicates the site comprises recently felled woodland within an area of managed forestry.

Historic imagery suggests that the site formerly contained mature conifer plantation woodland before being clear-felled between 2007 and 2018.

D.1.1.2 MAGIC WEBSITE[7]

PROTECTED SITES

The table below details the internationally and nationally statutorily designated sites within 2km of the survey area.

TABLE 5: DESIGNATED SITES

Designation	Site Name	Brief Reason for Designation	Distance from Survey Area
Site of Special Scientific Interest	River Coquet and Coquet Valley Woodlands	The River Coquet runs about 90km (57 miles) across Northumberland. It is a relatively unmodified fast-flowing upland river supporting characteristic fauna and flora. The river vegetation shows a natural succession from mineral poor upland streams, through to vegetation which reflects the characteristics of gravel, sandstone, limestone and alluvial sediments of the middle and lower reaches. The river is one of the most important game fisheries in the north of England, with large runs of sea trout and salmon. The fish are dependent on the rich insect life, of which the many species of mayfly are particularly significant. Coquetdale is a key area for otters and supports a high diversity of breeding birds which depend on riverine habitats. Many of the woodlands rear the river are semi-natural and ancient woodland sites, representative of valley woodlands in Northumberland.	~700m North at closest point

The site falls within a SSSI impact risk zone for which this type of development does not require the Local Planning Authority to consult with Natural England on the application.

HABITATS

No Priority Habitats are mapped on or immediately adjacent to site. The site is listed as conifer woodland in the National Forest Inventory.

[7] Multi Agency Geographic Information for the Countryside (MAGIC) www.magic.gov.uk

SPECIES

There is a single record of a granted European Protected Species (EPS) mitigation licence affecting bats within 2km, located approximately 200m north-east of site, for which E3 completed the informative surveys and obtained the licence (see section D.1.1.3 below).

No GCN mitigation licence records, survey licence returns or eDNA survey records (2017-2019) are shown within 2km of the site.

D.1.1.3 PREVIOUS SURVEY WORK BY E3

E3 completed a range of surveys in 2016 to inform a development of Kidlandlee Cottages, approximately 200m to the north of the site.

Bat surveys of the site found day roosts of common pipistrelle, soprano pipistrelle and Natterer's bats (all single to low numbers of bats) within the buildings.

An excerpt from the supporting Preliminary Ecological Appraisal is provided below:

"The Preliminary Ecological Appraisal indicated that the habitats on site and in the surrounding area are typical to the area and upland nature of the site. The two areas assessed in more detail are small and of no greater than low ecological value, comprising either semi-improved, formerly grazed grassland or an area of soft rush dominated marshy grassland. Both these habitat types are found widely in the surrounding landscape.

A typical range of upland bird species were recorded during surveys with the majority associated with the conifer plantation abutting the site. The wider Kidlandlee site provides abundant nesting opportunities to birds and due to the presence of nesting swift is likely to be of at least parish value to birds.

The wider site provides abundant habitat for badger sett creation though no evidence of the species was recorded and the upland nature of the site may limit the potential for their presence. Should they be present, no impacts are predicted from the proposed development.

Red squirrel are likely to be present in the surrounding woodland, though as no mature trees are to be lost to the development, impacts on this species are not envisaged.

The habitats in the local area are suitable for reptiles and it is likely that potentially up to three species are present in the wider area and on site. Should they be present, the site is considered likely to be of local value to this taxa.

Brown hare was recorded at the entrance to the site and hedgehog may be present. These species are both national priority species. Given the very small areas of habitat that will be lost to the development and that these are commonly replicated habitats in the surrounding area, the site is considered to be of low value to these species.

Due to the lack of suitable habitat within the site and the surrounding area other protected species are considered likely absent."

D.1.2 CONSULTATION

LOCAL RECORD CENTRE

The table below summarises the records provided by the local records centre. The full data search results can be provided on request.

TABLE 6: CONSULTATION RECORDS			
Species	**No. of Records**	**Closest distance (m – if sufficient record resolution provided)**	**Most recent date**
Amphibian			
Common Toad	3	867	13/10/2008
Insect - butterfly			
Small Heath	34	867	25/05/2009
Reptile			
Adder	6	867	14/07/2019
Terrestrial mammal			
Brown Hare	7	205	01/05/2016
Common Pipistrelle	7	803	02/08/2013
Eurasian Badger	1	987	21/08/1991
Eurasian Common Shrew	1	944	25/10/1991
Eurasian Red Squirrel	5	426	08/04/2014
European Otter	15	822	11/05/2016
Nyctalus Bat species	2	838	02/08/2013
Pine marten	4	878	01/11/2018
Pipistrelle Bat species	7	811	02/08/2013
Soprano Pipistrelle	4	809	02/08/2013
Whiskered/Brandt's Bat	1	803	02/08/2013

The records centre also provided 183 records of birds.

In addition, the records centre provided information relating to the non-statutory designated sites shown in the below figure, which lie within the search area:

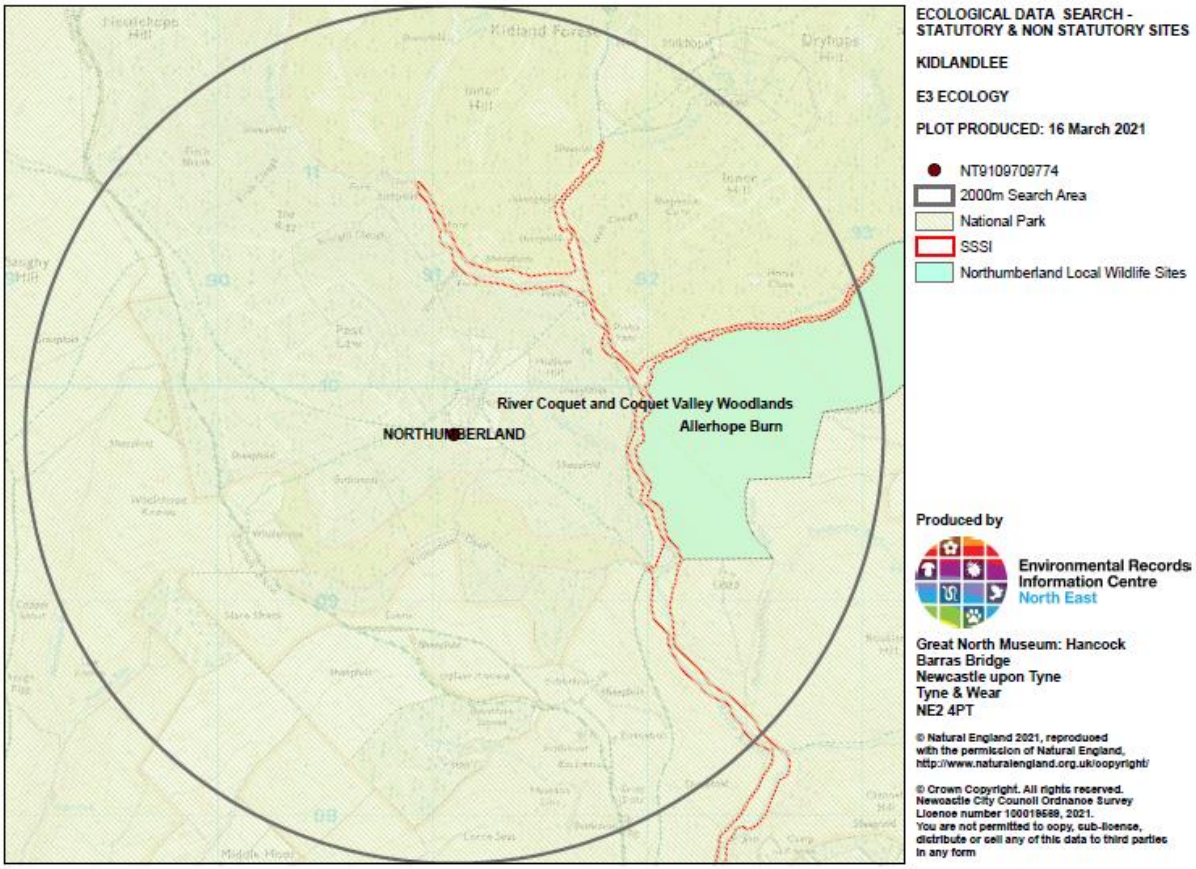

FIGURE 4: NON-STATUTORY DESIGNATED SITES WITHIN 2KM (ERIC NE)

D.2 FIELD SURVEY

D.2.1 HABITATS

The proposed development site has an area of approximately 0.85ha and is dominated by recently planted broad-leaved woodland, on a plot of recently felled conifer plantation woodland.

The habitats present within the survey area are illustrated within the figure below and described in more detail below.

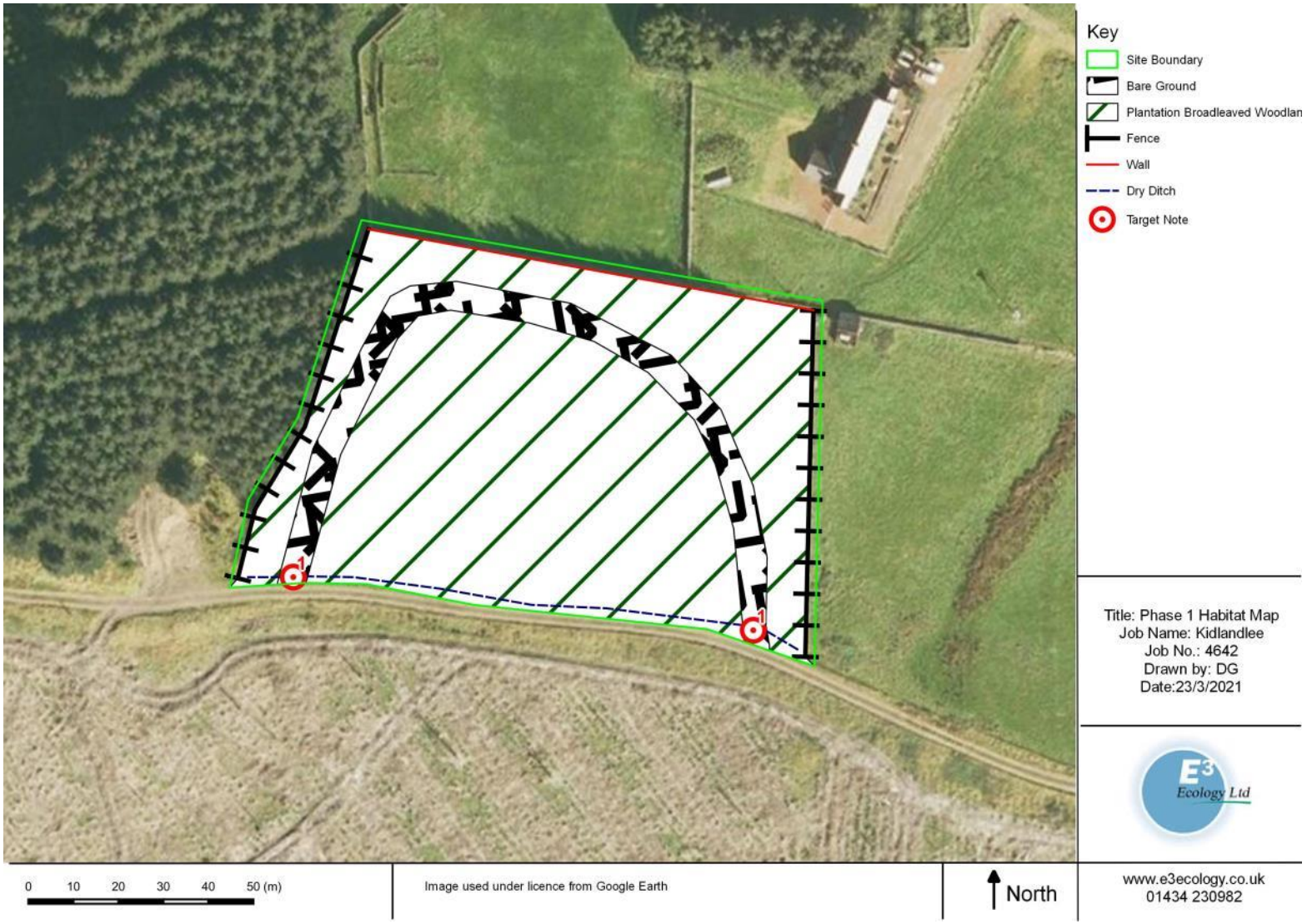

FIGURE 3: HABITAT MAP

WOODLAND

The site formerly comprised a plantation of entirely Sitka spruce *Picea sitchensis*. This was clear-felled at some point between 2007 and 2018, with some stumps part removed and some left in the ground. The site has since developed a rough, probably acidic, grassland coverage but has been planted again with oak *Quercus* sp. saplings.

Species recorded include bent grass *Agrostis* sp., Yorkshire fog *Holcus lanatus*, fescue *Festuca* sp., tufted hair grass *Deschampsia cespitosa*, foxglove *Digitalis purpurea*, rosebay willowherb *Chamerion angustifolium*, stinging nettle *Urtica dioica*, sheep sorrel *Rumex acetosella*, spear thistle *Cirsium vulgare*, sedge *Carex* sp., soft rush *Juncus effusus*, great woodrush *Luzula sylvatica*, broad-leaved dock *Rumex obtusifolius*, broad buckler fern *Dryopteris dilatata,* heath bedstraw *Galium saxatile*, heath speedwell *Veronica officinalis*, *Polytrichum commume* moss and other moss sp.




BARE GROUND

There is a circular gravel access track which enters and exits the site at the southern boundary. Scattered plant species were recorded on the track including Yorkshire fog, hairy bittercress *Cardamine hirsuta*, annual meadow grass *Poa annua* and common chickweed *Stellaria media*.


DITCHES

There is a dry, quite shallow ditch along the southern boundary, which contains similar rough grassland and is culverted with drain pipes beneath the access track (see Target note 1).

FENCES & WALLS

Timber post and barbed wire fencing demarcates the eastern and western site boundaries, with dry stone walling along the northern boundary to a height of 1.5m. *Cladonia* sp. moss was noted on the wall.

SURROUNDING HABITATS

The areas surrounding the proposed development site comprise further areas of cleared woodland, semi-improved grazed grassland fields divided by drystone walls and coniferous plantation woodland. A small former quarry is located adjacent to the site's south-western corner.

D.2.2 HABITAT ASSESSMENT

Given the size of the site and presence of large areas of similar habitats in the surrounding area, the development site is considered to be of up to local value for the habitats it supports.

D.2.3 TARGET NOTES

TARGET NOTE 1

The dry ditch is culverted beneath the access points onto the site.

D.2.4 SPECIES

BATS

The site contains no buildings or mature trees, with the only possible roosting opportunities being located within the drystone wall along the northern site boundary. However, the wall is only 1.5m high, is generally rather exposed and is only considered to provide sub-optimal roosting suitability.

The site provides a limited amount of foraging and commuting habitat, with higher quality foraging habitats available in the wider surrounding woodland habitats and within the

sheltered valleys. The forest rides, woodland edges and sheltered valleys will provide good quality commuting routes for bats in the local area.

Overall the site is considered to be of local value to foraging and commuting bats.

GREAT CRESTED NEWT

There are no ponds on site and no mapped ponds within 500m of the site.

The site provides good quality terrestrial habitat for GCNs, with rough grassland/recently planted woodland and exposed tree roots which could be used for hibernation or sheltering purposes.

However, no records of GCN were returned within 2km of site during the records search and due to the lack of suitable aquatic habitat nearby, GCNs are considered to be absent from the site. Common amphibians, including the Priority Species common toad, may occasionally be present on the site. If present, the site is likely to be of up to local value to these common amphibian species.

BIRDS

The following bird species were recorded on site, in adjacent habitats or flying over the site: mistle thrush (red listed Bird of Conservation Concern[8]), robin, pheasant and carrion crow.

The drystone wall along the northern boundary may provide some nesting opportunities, and the site, though small, is of some suitability to support nesting nightjar, stonechat, skylark and meadow pipit. The site also provides a small foraging resource for a range of upland bird species.

BADGER

The site contains suitable foraging and sett excavating opportunities for badger, but no field signs directly attributable to badger were found during the survey. They may visit the site on occasion for foraging / commuting purposes, and if present then the site is considered to be of low value to this species.

REPTILES

The site provides suitable habitat for common reptile species and there is a low number of records of adder within 2km These are mostly from the early 1990s but with two more recent records in 2017 and 2019; these latter two are over 1km from site. The rough grassland and recently cleared/newly planted woodland provides sheltered foraging opportunities and shelter/hibernation opportunities are available in the tree root systems of the felled and uprooted trees and at the base of the drystone wall. If present, the site is considered to be of local value to reptiles.

RED SQUIRREL

There are records of red squirrel within 500m of the site, but since the clearance of woodland on site, it no longer provides suitable habitat for this species, with higher quality habitat within the existing coniferous plantations in the surrounding areas. They are therefore considered likely to be absent from the site.

[8] Red listed species are of high conservation concern. Amber listed species are of medium conservation concern. Eaton *et al* (2015) Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and Isle of Man. British Birds 108, 708-746.

INVERTEBRATES

The site generally lacks significant amounts of key larval food-plants for priority butterfly species. Notable populations of priority butterfly species are considered likely to be absent.

OTTER, WATER VOLE & WHITE-CLAWED CRAYFISH

There are no aquatic habitats on or within the immediate vicinity of the site with suitability to support these species. Otters have much wider ranges and may frequent the site on rare occasions, but the site is considered to be of no more than low value for this species, with the other two species considered absent from the site.

PINE MARTEN

There is a low number of records of this species within 2km of site in the past two decades. However, the habitats on site are relatively unsuitable for this species, with higher quality habitat in the surrounding conifer plantations. It is considered likely to be absent from the site.

OTHER NATIONAL PRIORITY AND LOCAL BAP SPECIES

The site contains some suitable habitat for hedgehog and common toad, and brown hare presence in the local area was confirmed during E3's surveys of the site to the north in 2016. The proposed development site is considered to be of no more than local value for these species.

E. IMPACT ASSESSMENT & RECOMMENDATIONS

E.1 POTENTIAL IMPACTS, MITIGATION, COMPENSATION & FURTHER SURVEY

The likely impacts of the proposed development, without appropriate targeted mitigation and/or compensation, are detailed in the table below.

Further survey, avoidance, mitigation and compensation measures are also provided to address these impacts, which are based upon information available to date and may change if development proposals are altered or following further survey work, if required.

Further work required prior to submission of a planning application is listed in **bold text**, and it should be noted that this requirement will restrict a full assessment of ecological impacts until those works are completed.

Ecological Receptor	Impact	Mitigation
Protected Sites		
Single SSSI within 2km	None anticipated.	None required.
Habitats		
Plantation woodland	Loss and damage to newly planted trees	Works will be undertaken in accordance with BS5837-2012 'Trees in relation to construction' and retained hedgerows and trees will be protected, including protection of roots. Any saplings removed will be replanted along the edges of the site where there is space to do so. The site will continue to be managed to establish a mature broad-leaved woodland, with the proposed holiday cabins nestled within the planting.
Species		
Bats	Increased lighting affecting foraging/commuting areas potentially used by bats (and other nocturnal wildlife)	Light levels around foraging/commuting areas (e.g. site boundaries) will be low level, below 2m in height, and low lux (below 1 lux 5m from the light source).
	Loss of bat foraging/commuting habitat of up to local value	Management to establish broad-leaved woodland will maintain and potentially enhance the food resource for bats and wildlife generally.
Common amphibians (excluding GCN)	Harm/disturbance to common amphibians, including common toad	Works will be undertaken to a precautionary amphibian method statement.
Birds	Harm/disturbance to nesting birds if site preparation and clearance commence during the bird breeding season	A pre-commencement check for nesting birds will be undertaken by a suitably experienced ornithologist if works are to commence between March and August inclusive.
	Loss of bird foraging and nesting opportunities of up to local value	**A single breeding bird survey visit, timed in late May to June is required to assess the potential use of the site by nightjar and other breeding bird species** if there is significant habitat loss or potential disturbance as part of the

		proposals**. Given that nightjar is camouflaged and nocturnal, it is recommended that the survey is either undertaken at dusk/pre-dawn or if in the daytime, including the use of a thermal imaging camera.** Management to establish broad-leaved woodland will maintain and potentially enhance the food and nesting resources for birds and wildlife generally.
Reptiles	Residual risk of disturbance / harm if present during the works.	Works will be undertaken to a precautionary method statement. It should be noted that there are records of adder in the local area, and if present this species is venomous and must not be handled by untrained persons.
Hedgehog	Harm/disturbance to hedgehog	Works will be undertaken to a precautionary hedgehog method statement.
	Loss of hedgehog foraging / sheltering habitat of local value	Management of the site to establish broad-leaved woodland will ensure that is continues to provide sheltering and foraging resources.
Wildlife (general)	Entrapment of wildlife during construction if trenches are left open overnight	Any excavations left open overnight will have a means of escape for wildlife that may become trapped in the form of a ramp at least 300mm in width and angled no greater than 45°.

E.2 RESIDUAL & CUMULATIVE IMPACTS

Provided that the measures detailed in the above table are implemented, no significant residual adverse impacts are envisaged.

No cumulative impacts have been identified during the impact assessment.

E.3 MONITORING

Given the nature of the proposed mitigation and compensation strategy, no monitoring is proposed.

E.4 ADDITIONAL ENHANCEMENT RECOMMENDATIONS

The development presents an opportunity to ecologically enhance the site and it is a planning requirement to provide a net gain in biodiversity as part of the development. The following enhancements are recommended:

- Creation of additional hedgehog/reptile/amphibian hibernacula or habitat piles.
- Provision of integrated bird nesting and bat roosting features in the new buildings on site. The exact number, types and locations are to be agreed with the council prior to installation.

F. CONCLUSIONS

Further work may be required to fully assess the impacts of the development on birds, depending on site proposals. However, provided that the recommendations in this report and any following subsequent survey work are implemented, it is anticipated that proposals may proceed with no significant adverse effect on notable species and/or habitats. The proposals provide an opportunity for ecological benefit through establishment of mature broad-leaved woodland and bat and bird nest box provision, contributing to local and national conservation targets.

APPENDICES

APPENDIX 1 – COPYRIGHT, CONFIDENTIALITY & LIABILITY

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APPENDIX 2 - PLANNING POLICY AND LEGISLATIVE CONTEXT

NATIONAL PLANNING POLICY

The table below details the key paragraphs from the National Planning Policy Framework (NPPF)[9] relating to the natural environment:

TABLE 7: NATIONAL PLANNING POLICY FRAMEWORK: CONSERVING AND ENHANCING THE NATURAL ENVIRONMENT	
Statement	**Paragraph**
Planning policies and decisions should contribute to and enhance the natural and local environment by: a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan); b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate; d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures; e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.	*170*
Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value, where consistent with other policies in this Framework[10]; take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.	*171*
Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks and the Broads[11]. The scale and extent of development within these designated areas should be limited. Planning permission should be refused for major development[12] other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of: a) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy; b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.	*172*
Within areas defined as Heritage Coast (and that do not already fall within one of the designated areas mentioned in paragraph 172), planning policies and decisions should be consistent with the special character of the area and the importance of its conservation. Major development within a Heritage Coast is unlikely to be appropriate, unless it is compatible with its special character.	*173*
To protect and enhance biodiversity and geodiversity, plans should: a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological	*174*

[9] National Planning Policy Framework (February 2019), Department for Communities and Local Government,
[10] Where significant development of agricultural land is demonstrated to be necessary, areas of poorer quality land should be preferred to those of a higher quality.
[11] English National Parks and the Broads: UK Government Vision and Circular 2010 provides further guidance and information about their statutory purposes, management and other matters.
[12] For the purposes of paragraphs 172 and 173, whether a proposal is 'major development' is a matter for the decision maker, taking into account its nature, scale and setting, and whether it could have a significant adverse impact on the purposes for which the area has been designated or defined.

TABLE 7: NATIONAL PLANNING POLICY FRAMEWORK: CONSERVING AND ENHANCING THE NATURAL ENVIRONMENT	
Statement	**Paragraph**
networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity[13]; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation[14]; and b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.	
When determining planning applications, local planning authorities should apply the following principles: a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused; b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest; c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons[15] and a suitable compensation strategy exists; and d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.	*175*
The following should be given the same protection as habitats sites: a) potential Special Protection Areas and possible Special Areas of Conservation; b) listed or proposed Ramsar sites[16]; and c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.	*176*
The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.	*177*

Section 40 of the Natural Environment and Rural Communities Act 2006, places a duty on all public authorities in England and Wales to have regard, in the exercise of their functions, to the purpose of conserving biodiversity.

Planning Practice Guidance[17] states:

- Planning authorities need to consider the potential impacts of development on protected and priority species, and the scope to avoid or mitigate any impacts when considering site allocations or planning applications. (para. 016)

[13] Circular 06/2005 provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.
[14] Where areas that are part of the Nature Recovery Network are identified in plans, it may be appropriate to specify the types of development that may be suitable within them.
[15] For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat.
[16] Potential Special Protection Areas, possible Special Areas of Conservation and proposed Ramsar sites are sites on which Government has initiated public consultation on the scientific case for designation as a Special Protection Area, candidate Special Area of Conservation or Ramsar site.
[17] Planning Practice Guidance: Natural Environment (www.planningguidance.communities.gov) Updated July 2019

- Information on biodiversity and geodiversity impacts and opportunities needs to inform all stages of development (including site selection and design, pre-application consultation and the application itself). An ecological survey will be necessary in advance of a planning application if the type and location of development could have a significant impact on biodiversity and existing information is lacking or inadequate. (para. 018)
- Even where an Environmental Impact Assessment is not needed, it might still be appropriate to undertake an ecological survey, for example, where protected species may be present or where biodiverse habitats may be lost. (para. 018)
- As with other supporting information, local planning authorities should require ecological surveys only where clearly justified. Assessments should be proportionate to the nature and scale of development proposed and the likely impact on biodiversity. (para. 018)
- The National Planning Policy Framework encourages net gains for biodiversity to be sought through planning policies and decisions. Biodiversity net gain delivers measurable improvements for biodiversity by creating or enhancing habitats in association with development. Biodiversity net gain can be achieved on-site, off-site or through a combination of on-site and off-site measures. (para. 022)

PROTECTED SPECIES LEGISLATION

The table below details the relevant legislation for the protected species covered within the scope of the survey.

TABLE 8: SUMMARISED SPECIES LEGISLATION

Species	Relevant Legislation	Level of Protection
Bats (All species)	• Protection under the Wildlife and Countryside Act (WCA) (1981) (Listed on Schedule 5) - as amended • Classified as protected species under The Conservation of Habitats and Species Regulations 2017 (as amended) • Bats are also protected by the Wild Mammals (Protection) Act 1996	The WCA (1981) and The Conservation of Habitats and Species Regulations 2017 (as amended) make it an offence to: • Intentionally kill, injure, or take any species of bat • Intentionally or recklessly disturb bats • Intentionally or recklessly damage destroy or obstruct access to bat roosts
Otter	• Protection under the Wildlife and Countryside Act (WCA) (1981) (Listed on Schedule 5) - as amended • Classified as protected species under The Conservation of Habitats and Species Regulations 2017 (as amended) • Otters are also protected by the Wild Mammals (Protection) Act 1996	The WCA (1981) and The Conservation of Habitats and Species Regulations 2017 (as amended) make it an offence to: • intentionally kill, injure, or take otters • intentionally or recklessly disturb otters • intentionally or recklessly damage destroy or obstruct access to otter holts or any place used by the animal for shelter or protection
Great Crested Newt	• Protection under the Wildlife and Countryside Act (WCA) (1981) (Listed on Schedule 5) - as amended • Classified as protected species under The Conservation of Habitats and Species Regulations 2017 (as amended)	The WCA (1981) and The Conservation of Habitats and Species Regulations 2017 (as amended) make it an offence to: • intentionally kill, injure, or take great crested newts • intentionally or recklessly disturb great crested newts • intentionally or recklessly damage destroy or obstruct access to any place used by the animal for shelter or protection
Red Squirrel	• Full protection under the Wildlife and Countryside Act (WCA) (1981) (Listed on Schedule 5) - as amended • Red squirrels are also protected by	The WCA (1981) makes it an offence to: • intentionally kill, injure, or take red squirrels • intentionally or recklessly damage destroy or obstruct access to any place used by the animal

TABLE 8: SUMMARISED SPECIES LEGISLATION		
Species	**Relevant Legislation**	**Level of Protection**
	the Wild Mammals (Protection) Act 1996	for shelter or protection or disturb red squirrels whilst they are using such a place.
Birds	• Protection under the Wildlife and Countryside Act (1981) as amended with the exception of some species listed in Schedule 2 of the Act	The WCA (1981) makes it an offence to (with exceptions for certain species): • Intentionally kill, injure or take any wild bird • Intentionally take, damage or destroy nests in use or being built (including ground nesting birds) • Intentionally take, damage or destroy eggs • Species listed on Schedule 1 of the WCA or their dependant young are afforded additional protection from disturbance whilst they are at their nests
White-clawed Crayfish	• Partially protected by the Wildlife and Countryside Act (1981)	The WCA (1981) makes it an offence to: • Take a white-clawed crayfish from its habitat • Sell, offer for sale, advertise for sale, possess or transport for the purposes of selling any live or dead white clawed crayfish
Badger	• Protection of Badgers Act 1992 • Badgers are also protected by the Wild Mammals (Protection) Act 1996	The Protection of Badgers Act (1992) makes it an offence to intentionally or recklessly: • Damage a badger sett or any part of it • Destroy a badger sett • Obstruct access to, or any entrance of a badger sett • Disturb a badger whilst it is occupying a badger sett
Water Vole	• Full protection under the Wildlife and Countryside Act (WCA) (1981) (Listed on Schedule 5) - as amended • Water voles are also protected by the Wild Mammals (Protection) Act 1996	The WCA (1981) makes it an offence to: • intentionally kill, injure, or take water voles • intentionally or recklessly damage destroy or obstruct access to any place used by the animal for shelter or protection or disturb water voles whilst they are using such a place
Common reptiles (Slow-worm, Adder, Grass Snake, Common Lizard)	• Partially protected by the Wildlife and Countryside Act	The WCA (1981) makes it an offence to: • intentionally kill or injure these animals • sell, offer for sale, advertise for sale, possess or transport for the purposes of selling any live or dead animals or part of these animals
Under the Countryside and Rights of Way Act 2000 (CROW Act) the offence in section 9(4) of the Wildlife and Countryside Act 1981 of damaging a place of shelter or disturbing those species given full protection under the act is extended to cover reckless damage or disturbance.		

INVASIVE SPECIES LEGISLATION

The table below details the legislation in relation to invasive species and lists those invasive species most likely to be found in this region.

TABLE 9: SUMMARISED INVASIVE SPECIES LEGISLATION		
Relevant Legislation	**Description of Offence**	**Species** *(Covered by the Legislation and most likely to be found in this Region)*

TABLE 9: SUMMARISED INVASIVE SPECIES LEGISLATION		
Relevant Legislation	**Description of Offence**	**Species** *(Covered by the Legislation and most likely to be found in this Region)*
Listed on Part II of Schedule 9 of the Wildlife and Countryside Act (1981 as amended)	Section 14 of the WCA (1981) states: • if any person plants or otherwise causes to grow in the wild any plant which is included in Part II of Schedule 9, he shall be guilty of an offence.	Himalayan balsam Cotoneaster Montbretia Japanese knotweed Giant hogweed Rhododendron Pirri-pirri bur New Zealand pygmyweed Giant rhubarb Japanese rose

PROTECTED SITE LEGISLATION

CONTEXT IN REGARD TO THE UK'S EXIT FROM THE EUROPEAN UNION

As of 1st January 2021, the UK is no longer bound by the Birds Directive and Habitats Directive. However, the Conservation of Habitats and Species Regulations still applies, which formerly acted to transpose the Birds Directive and the Habitats Directive into English and Welsh law. These are still referred to below for contextual purposes, as designated site citations and conservation objectives may not have been updated following the changes to applicable legislation and may still refer to the Directives.

STATUTORILY DESIGNATED SITES

Ramsar Site

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention recognises wetlands as important ecosystems and includes a range of wetland types from marsh to both fresh and salt water habitats. The wetlands can also include additional areas adjacent to the main water-bodies such as river banks or coastal areas where appropriate.

Special Protection Area (SPA)

SPAs are classified by the UK Government under the EC Birds Directive and comprise areas which are important for both rare and migratory birds.

Special Areas of Conservation (SAC)

SACs are designated under the EC Habitats Directive and are areas which have been identified as best representing the range and variety of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs are designated under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 unless they are offshore.

Sites of Special Scientific Interest (SSSI)

SSSIs are designated as sites which are examples of important flora, fauna, or geological or physiographical features. They are notified under the Wildlife and Countryside Act 1981 with improved provisions introduced by the Countryside and Rights of Way Act 2000.

National Nature Reserve (NNR)

NNRs are designated by Natural England under the National Parks and Access to the Countryside Act 1949 and the Wildlife and Countryside Act 1981 and support important ecosystems which are managed for conservation. They may also provide important opportunities for recreation and scientific study.

Country Parks

Country Parks are statutorily designated and managed by local authorities in England and Wales under the Countryside Act 1968. They do not necessarily have any nature conservation importance, but provide opportunities for recreation and leisure near urban areas.

Local Nature Reserves (LNR)
LNRs are designated under the National Parks and Access to the Countryside Act 1949 by local authorities in consultation with Natural England. They are managed for nature conservation and used as a recreational and educational resource.

NON-STATUTORILY DESIGNATED SITES

Non-Governmental Organisation Property
These are sites of biodiversity importance which are managed as reserves by a range of NGOs. Examples include sites owned by the RSPB, the Woodland Trust and the Wildlife Trusts.

Local Wildlife Site (LWS)
These are sites defined within the local plans under the Town and Country Planning system and are material considerations of any planning application determination. They are designated by the local authority although criteria for designation can vary between authorities.

PRIORITY SPECIES

Although not afforded any legal protection, national priority species (species of principal importance, as listed in Section 41 of the NERC Act (2006)), and local and regional priority species, as detailed within the relevant biodiversity action plans, are material considerations in the planning process and as such have been assessed accordingly within this report.

The tables below detail the species/species groups and habitats listed as priorities within the biodiversity action plans of the main Local Planning Authorities' within the north-east of England.

TABLE 10: BIODIVERSITY ACTION PLANS

Northumberland Biodiversity Action Plan					
Species			**Habitats**		
Barn Owl	Bats	Black Grouse	Blanket Bog	Built Environment	Brownfield Land
Coastal Birds	Common Seal	Dingy Skipper	Calaminarian Grassland	Coastal heathland	Fen, Marsh & Swamp
Dormouse	Farmland Birds	Freshwater Fish	Gardens & Allotments	Heather Moorland	Lowland Heathland
Freshwater Pearl Mussel	Garden Birds	Great Crested Newt	Lowland Meadows & Pastures	Maritime Cliffs & Slopes	Native Woodland
Grey Seal	Hedgehog	Otter	Ponds, Lakes & Reservoirs	Recreational & Amenity Space	Reedbed
Red Squirrel	River Jelly Lichen	Upland Waders	Rivers & Streams	Rocky Shore, Reefs & Islands	Saline Lagoons
Violet Crystalwort	Water Rock-bristle	Water Vole	Saltmarsh & Mudflat	Sand Dunes	Transport Corridors
White-Clawed Crayfish			Trees & Hedgerows	Upland Hay Meadows	Whin Grassland
Durham Biodiversity Action Plan					
Species			**Habitats**		
Barn Owl	Coastal Birds	Farmland Birds	Native Hedgerows	Veteran Trees, Parkland and Wood Pasture	Woodland and Scrub
Nightjar	Spotted Flycatcher	Upland Birds	Ponds, Lakes & Reservoirs	Lowland Fen	Rivers & Streams
Urban and Garden Wildlife	Freshwater Fish	Grass Snake	Blanket Bog and Upland Wet Heath	Calaminarian Grassland	Upland Calcareous Grassland
Great Crested	Reptiles	Chalk Carpet	Upland Dry	Upland	Upland Screes

Table 10: Biodiversity Action Plans					
Newt		Moth	heath and Acid Grassland	Haymeadows	and Rock Habitats
Cistus Forrester	Dark Green Fritillary	Dingy Skipper	Brownfield Sites	Built Structures	Coastal Habitats
Glow Worm	Grayling	Green Hairstreak	Lowland Heath	Lowland Meadows & Pasture	Magnesian Limestone Grassland
Least Minor Moth	Mud Snail	Northern Brown Argus	Transport Corridors	Waxcap Grassland	
Northern Dart	Round Mouthed Whorl Snail	Small Pearl-bordered Fritillary			
White Clawed Crayfish	White-letter Hairstreak	Badger			
Bats	Brown Hare	Dormouse			
Harvest Mouse	Hedgehog	Otter			
Pine Marten	Polecat	Red Squirrel			
Water Vole	Water Shrew	Black Poplar			
Juniper	Pale Bristle-Moss	Yellow Marsh Saxifrage			
Newcastle and North Tyneside Biodiversity Action Plan					
Habitats			**Species**		
Brownfield Land	Transport Corridors	Open Water & Wetland	Amphibians	Dingy Skipper	Otter
Rivers and Watercourses	Managed Urban Greenspace	Native Woodland	Urban Birds	Water Vole	Red Squirrel
Lowland Grassland	Scrub, Shrub & Hedgerow	Buildings and Structures	Hedgehog	Slow Worm	Bumblebee
Estuary & Coastal			Brown hare	Farmland Birds	Bats
Tees Valley Biodiversity Action Plan					
Species				**Habitats**	
Barn Owl	Ringed Plover	Grey Partridge	Tree Sparrow	Traditional Orchards	Semi-natural Broadleaved Lowland Woodland
Little Tern	Corn Bunting	Shelduck	Wagtail Yellow	Reedbeds	Rivers & Streams
Bittern	Swift	Purple Milk-vetch	Water Violet	Arable field Margins	Roadside Verges
Globeflower	Pepper saxifrage	Tufted Sedge	Knotted hedge-parsley	Lowland Meadows	Sand Dunes
Yellow Star of Bethlehem	Burnt Orchid	Green Winged Orchid	Strawberry Clover	School Grounds	Maritime Cliffs and Slopes
Flat Sedge	Small Leaved Lime	Black Poplar	Lyme Grass	Grazing Marsh	Hedgerows
Scarlet Wax Cap	White-letter Hairstreak	Grayling	Dingy Skipper	Gardens and Allotments	Saline Lagoons
Blomer's Rivulet	Crescent Striped	Forester	Large Red-Belted Clearwing	Marsh and Saltmarsh	Ponds, Lakes & Reservoirs
Fen Wainscot	Shore Wainscot	Eccentric Grass Snail	Moss Chrysalis Snail	Parks and Recreation Grounds	Lowland Heath
Moss Chrysalis Snail	Bats (except common pipistrelle)	Brown Hare	Harvest Mouse	Brownfields	Churchyards and Cemeteries
Harbour Seal	Water Vole	Common Lizard	Slow Worm		
Great Crested Newt	Bullhead	Salmon	Brown Trout		
European Eel	Brook Lamprey	Sea Lamprey	River Lamprey		
Cumbria Biodiversity Action Plan					
Species			**Habitats**		
Red Wood Ant	Wall Mason Bee	a ground beetle	Rivers	Lakes, Ponds	Hedgerows

TABLE 10: BIODIVERSITY ACTION PLANS					
		Dyschirius angustatus		and Tarns	
a ground beetle *Bembidion testaceum*	Oxbow Diving Beetle	Barn Owl	Traditional Orchards	Wood-Pasture & Parkland	Semi-natural Woodland
Song Thrush	Pearl Bordered Fritillary	High Brown Fritillary	Lowland Dry Acid Grassland	Calcareous Grassland	Hay Meadows and Pastures
Marsh Fritillary	Netted Carpet	Least Minor	Coastal and Floodplain Grazing Marsh	Heathland	Fen, Marsh and Swamp
a caddisfly *Glossosoma intermedium*	Freshwater Crayfish	Variable Damselfly	Bogs	Montane Habitats	Rock habitats
White-faced Dragonfly	Atlantic Salmon	Schelly	Calaminarian Grasslands	Previously developed land	Coastal Habitats above High Water
Vendace	Southern silver Stiletto-fly	Northern Silver Stiletto-fly	Coastal Intertidal Habitats	Coastal Saline lagoons	Coastal Subtidal Habitats
River Jelly Lichen	a lichen *Lobaria amplissima*	Pink Waxcap			
Medicinal Leech	Whiskered Bat	Brandt's Bat			
Natterer's Bat	Daubenton's Bat	Noctule			
Common Pipistrelle	Soprano Pipistrelle	Brown Long-eared Bat			
Red Squirrel	Water Vole	Hazel Dormouse			
Sandbowl Snail	a whorl snail *Vertigo geyeri*	Slender Green Feather-moss			
Great Crested Newt	Natterjack Toad	Pillwort			
Juniper	Northern Hawksbeard	Small White Orchid			