

PRELIMINARY ECOLOGICAL APPRAISAL LAND AT TROUGHEND, OTTERBURN



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DRAFT

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Unless requested otherwise, the information below will be provided to the Local Environmental Records Centre

Species	Recorder	Date	Location (4 Fig. NGR)	Abundance	Comment
Meadow Pipit	E3 Ecology Ltd.	July 2017	NY 85 92	3	Overflying site near Otterburn

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A. SUMMARY

E3 Ecology Ltd was commissioned by Mr Darren Rogers in July 2017 to undertake a Preliminary Ecological Appraisal (PEA) of Land at Troughend, Otterburn.

The site is proposed for three “glamping pods” and associated infrastructure.

Consultation with the Multi Agency Geographic Information for the Countryside (MAGIC) website indicated that there are no internationally or nationally designated sites within 2km, although highlighted that the site is within the Northumberland National Park.

Preliminary Ecological Appraisal indicated that the proposed development site at Troughend comprises a small area of an improved grassland field, currently managed for silage production, with a species poor, coarse grassland margin. A dry stone wall forms the western and southern boundaries with a farm access road to the south and the remainder of the field to the north and east. Four mature sycamore trees are present within a small pony paddock on the western boundary although these will be unaffected by the proposals. Assessment of the survey results suggest that the site is of low value for the habitats it supports.

There are no potential bat roosting opportunities present within the site, although the mature trees and farmstead to the west may provide some roosting opportunities. The site is small and exposed and is likely to be of limited foraging and commuting value, although the trees on the western boundary will provide some foraging opportunities. Due to the very small size of the site, the exposed location and the nature of the proposals, no further surveys are proposed.

The site provides negligible opportunities for badger sett creation, though may provide a small area of foraging, with no evidence of the species recorded. Presence of the species is likely to be limited by the surrounding habitats but the species may utilise the conifer woodland to the west. The risk of sett creation is considered likely to be negligible.

The mid summer timing of the survey meant that many of the upland breeding bird species present in the area will have moved off their breeding grounds and subsequently a narrow range of bird species were recorded during the survey. The small size of the site and its location, within a small corner of a larger field, suggests that ground nesting species such as skylark and curlew are likely to be absent from the proposed development area, although potentially present within the rush pasture off-site to the south. The development site is considered likely to be of low ornithological value.

There are no known areas of standing water present within 500m or watercourses present within the site or within 400m and subsequently otter, water vole and great crested newts are considered likely absent.

The dry stone walls provide some potentially suitable habitat for reptile species such as adder, common lizard and slow worm, known to be present in the Northumberland uplands, however the improved grassland is of lower suitability and the site is subsequently considered to be of low value to this taxa.

No other protected species are considered likely to be present on site given the lack of suitable habitat, although brown hare and potentially hedgehog, both National Priority species, may utilise the site on occasion and are known to be present within the wider area.

The proposed development is not predicted to have any impacts on statutory/non-statutory sites.

Potential impacts of the development are:

- Loss of a small area of improved grassland and coarser grassland margin.
- Repositioning of a dry stone wall.
- Damage to any off site trees through severance or asphyxiation of roots or damage to the crowns.
- Low level increase in disturbance to small numbers of bats that may forage around the off site sycamore trees.
- Loss of a small area of improved grassland with limited potential to support very small numbers of ground nesting bird species.
- Harm/disturbance to breeding birds, should any vegetation clearance/tree felling be carried out during the nesting season (March to August inclusive).
- Potential harm to mammal species through entrapment within excavations left open overnight.
- Loss of habitat used by and potential increased disturbance to the national priority species brown hare.
- Low residual risk of impacts on reptiles should they be present within the dry stone wall at the time of works.

Key mitigation measures include:

- The mature sycamore trees present just outwith the western boundary will be retained and unaffected by the proposed development.
- External lighting will be low level and kept to a minimum on site, in keeping with the dark skies initiative.
- Vegetation clearance will be undertaken outside of the bird nesting season (March to August inclusive) unless a checking survey by a suitably experienced ornithologist confirms the absence of active nests.
- Any excavations left open overnight will have a means of escape for mammals that may become trapped in the form of a ramp at least 300mm in width and angled no greater than 45°.
- The roots and crowns of the retained trees to the west will be protected throughout the development through the provision of adequate construction exclusion zones in accordance with the guidance given by BS5837:2012.
- Works to the dry stone wall will be undertaken to a Reptile Method statement, appended to this report, to address the low residual risk of this taxa being present.
- Areas of grassland at the site boundaries will be managed to increase biodiversity.

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

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 Mr Darren Rogers in July 2017 to undertake a Preliminary Ecological Appraisal (PEA) of Land at Troughend, Otterburn.

The purpose of this report is:

- To identify key ecological constraints to the proposed development
- To inform master-planning to allow significant ecological effects to be avoided or minimised wherever possible
- To allow the further ecological surveys needed to inform an ecological impact assessment to be identified and appropriately designed
- To allow likely mitigation or compensation measures to be developed

The site is located to the west of Troughend Farm, Otterburn at an approximate central grid reference of NY 85910 92169. The site location is illustrated below in Figure 1.

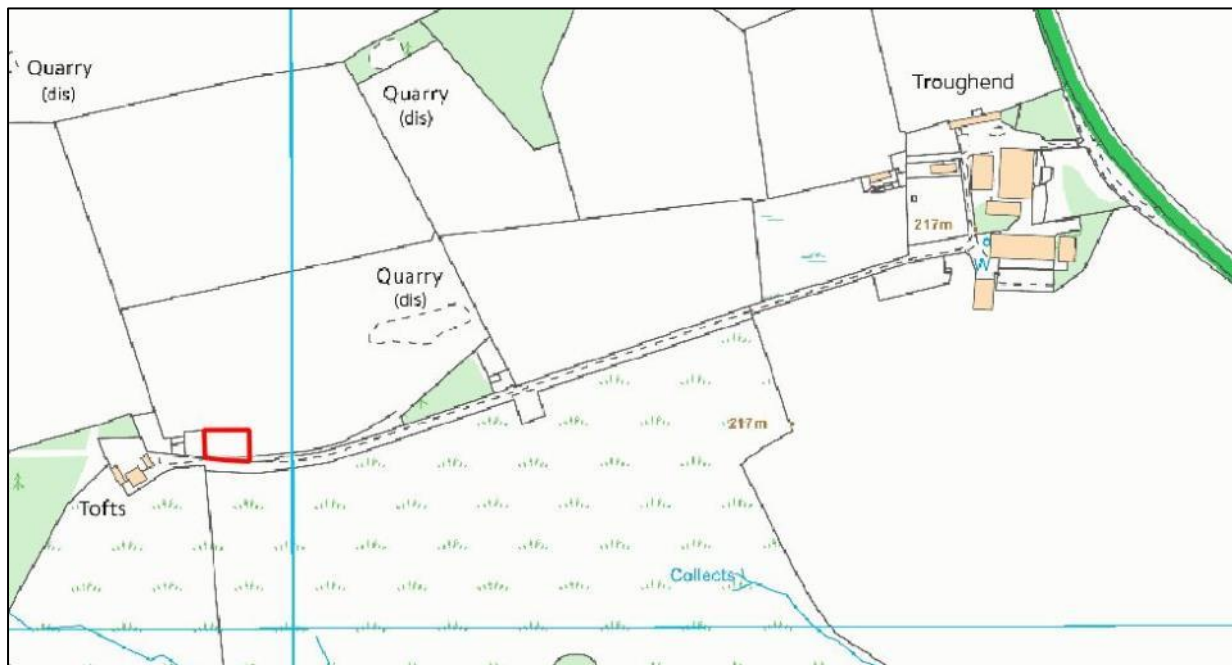


FIGURE 1: SITE LOCATION

(OS mapping © Crown copyright and database rights 2016/2017 OS 0100039392)

It is proposed to install three “glamping” pods and a “barbeque pod” within a small area of existing grassland. A small area of dry stone wall will also be repositioned to allow access to the proposed development site.

C. PLANNING POLICY AND LEGISLATIVE CONTEXT

C.1 NATIONAL PLANNING POLICY

Table 1 details the key paragraphs from the National Planning Policy Framework (NPPF)¹ relating to the natural environment:

TABLE 1: NATIONAL PLANNING POLICY FRAMEWORK: NATURAL ENVIRONMENT	
Statement	Paragraph
The planning system should contribute to and enhance the natural and local environment by: <ul style="list-style-type: none"> o Recognising the wider benefits of ecosystem services; o Minimising impacts on biodiversity and providing net gains in biodiversity where possible 	109
Planning policies and decisions should encourage the effective use of land by re-using land that has been previously developed (brownfield land), provided that it is not of high environmental value.	111
Local planning authorities should set criteria based policies against which proposals for any development on or affecting protected wildlife sites will be judged. Distinctions should be made between the hierarchy of international, national and locally designated sites so that protection is commensurate with their status and gives appropriate weight to their importance and the contribution that they make to wider ecological networks	113
To minimise impacts on biodiversity, planning policies should: <ul style="list-style-type: none"> o Promote the preservation, restoration and re-creation of priority habitats ecological networks and the protection and recovery of priority species populations, linked to national and local targets 	117
When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principals: <ul style="list-style-type: none"> o If significant harm resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused; o Development proposals where the primary objective is to conserve or enhance biodiversity should be permitted; o Opportunities to incorporate biodiversity in and around developments should be encouraged; o Planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees, found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss 	118
By encouraging good design, planning policies and decisions should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation	125

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 Guidance² states:

- *'The National Planning Policy Framework is clear that pursuing sustainable development includes moving from a net loss of biodiversity to achieving net gains for nature, and that a core principle for planning is that it should contribute to conserving and enhancing the natural environment and reducing pollution' (para. 007).*
- *'Information on biodiversity impacts and opportunities should inform all stages of development An ecological survey will be necessary in advance of a planning application if the type and location of development are such that the impact on biodiversity may be significant and existing information is lacking or inadequate' (para. 016).*
- *'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' (para. 016).*

¹ National Planning Policy Framework (March 2012), Department for Communities and Local Government,

² Planning Practice Guidance: Natural Environment (www.planningguidance.communities.gov)

- ‘Local planning authorities should only require ecological surveys where clearly justified, for example if they consider there is a reasonable likelihood of a protected species being present and affected by development. Assessments should be proportionate to the nature and scale of development proposed and the likely impact on biodiversity’ (para. 016).
- ‘Biodiversity enhancement in and around development should be led by a local understanding of ecological networks, and should seek to include:
 - habitat restoration, re-creation and expansion;
 - improved links between existing sites;
 - buffering of existing important sites;
 - new biodiversity features within development; and
 - securing management for long term enhancement’ (para. 017).

C.2 PROTECTED SPECIES LEGISLATION

The table below details the relevant legislation for those protected species that may be present on this site.

TABLE 2: SUMMARISED SPECIES LEGISLATION		
Species	Relevant Legislation	Level of Protection
Bats (All species)	<ul style="list-style-type: none"> • Protection under the Wildlife and Countryside Act (WCA) (1981) (Listed on Schedule 5) - as amended • Classified as European protected species under Conservation of Habitats and Species Regulations 2010 • Bats are also protected by the Wild Mammals (Protection) Act 1996 	The WCA (1981) and Habitat Regulations (2010) make it an offence to: <ul style="list-style-type: none"> • 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
Birds	<ul style="list-style-type: none"> • 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): <ul style="list-style-type: none"> • 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
Common reptiles (Slow-worm, Adder, Grass Snake, Common Lizard)	<ul style="list-style-type: none"> • Partially protected by the Wildlife and Countryside Act 	The WCA (1981) makes it an offence to: <ul style="list-style-type: none"> • 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
<p><i>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.</i></p>		

C.3 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 3: SUMMARISED INVASIVE SPECIES LEGISLATION

Relevant Legislation	Description of Offence	Species <i>(Covered by the Legislation and most likely to be found in this Region)</i>
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

C.4 PROTECTED SITE LEGISLATION

Details of the legislation surrounding protected sites are provided in the appendices.

C.5 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 table below details the local biodiversity action plan relevant to the area within which this site lies, and the species/species groups and habitats listed as priorities within the plan.

TABLE 4: 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

D. METHODOLOGY

D.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 red line boundary as defined within Figure 3 with, in addition, a 50m buffer around the periphery appraised where access was available. 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

Figure 2 illustrates the site boundary whilst, to provide context, Figure 3 illustrates the broad habitats present on site and within an approximate 500m buffer zone.



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



FIGURE 3: SITE AND SETTING
(Reproduced under licence from Google Earth Pro.)

D.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 July 2017, 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 Multi Agency Geographic Information for the Countryside (MAGIC) website³ for all statutorily protected sites for nature conservation within 2km of the survey area.

D.3 PRELIMINARY FIELD SURVEY METHODOLOGY

D.3.1 PHASE 1 HABITAT SURVEY

D.3.1.1 SURVEY METHODS

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 manual⁴. 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.

³ Multi Agency Geographic Information for the Countryside (www.magic.gov.uk)

⁴ Handbook for Phase 1 habitat survey, A Technique For Environmental Audit, JNCC, 2010

Where areas within the study area do not fall into the Phase 1 Habitat Survey classification, alternative methods of classification have been used.

D.3.1.2 SURVEY EQUIPMENT

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

- Zeiss 8x32 Victory HT Binoculars
- Canon Hypershot Digital Camera

D.3.2 PRELIMINARY PROTECTED AND PRIORITY SPECIES APPRAISAL

D.3.2.1 SURVEY METHODS

Where there is a risk of legally protected species and/or otherwise notable species⁵ being present, an initial appraisal was completed to inform the proposals. This appraisal included the following key elements:

- Structures and trees were assessed for the risk of supporting roosting bats (see below).
- Wetlands, where present, were reviewed for their potential use by great crested newt, otter and water voles,
- If present, any trackways regularly used by badger were noted and any badger sett usage assessed by the presence of freshly dug earth or bedding at the entrance.
- The suitability of the suite of habitats present for use by reptiles was assessed.
- Likely use of the site by birds was assessed from the species seen during the survey, and the habitats present.
- Potential use by otherwise notable species was determined based on the broad habitat types present on site, any recent records obtained through the desk study and the geographical distribution of the species. Where specific habitat requirements for notable species have been recorded on site these have been noted, and used as part of this appraisal. The species groups assessed are limited to birds, freshwater fish, amphibians, reptiles, terrestrial mammals, butterflies and dragonflies.

A preliminary assessment, based on inspection from within the site boundary, was made of any trees affected by the proposed development. Trees were inspected and assessed for their potential to support roosting bats and were categorised as negligible, low, moderate or high suitability for roosting bats based on guidelines provided within the Bat Conservation Trust Bat Survey: Good Practice Guidelines⁶ and detailed within Table 5.

TABLE 5: GUIDELINES FOR ASSESSING THE POTENTIAL SUITABILITY OF PROPOSED DEVELOPMENT SITES FOR BATS, BASED ON PRESENCE OF ROOSTING HABITAT FEATURES (TREES) <i>(TO BE APPLIED USING PROFESSIONAL JUDGEMENT, TABLE 4.1 BAT SURVEY GUIDELINES)</i>	
Suitability	Roosting Habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A 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 tree with one or more potential roost site 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,

⁵ 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

⁶ Collins, J. (ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd Edition). Bat Conservation Trust

protection, conditions and surrounding habitat.

The assessment is based upon the age and species of the tree, the presence of features with potential to support roosting bats and the location of the tree and habitats present in the surrounding area. Any potential roosting locations and field signs that could indicate bat use, such as droppings, staining and scratch marks were noted.

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.

D.3.3 ENVIRONMENTAL CONDITIONS

The table below details the environmental conditions during the preliminary ecological appraisal.

TABLE 6: SURVEY CONDITIONS				
Date	Temperature	Cloud Cover	Precipitation	Wind Conditions
21.07.17	13°C	100%	None	SW4

D.3.4 SURVEY CONSTRAINTS

There were considered to be no constraint to survey.

D.4 PERSONNEL

The table below details the personnel who undertook the survey work.

Name	Position	Professional Qualifications	Natural England Survey Licence Numbers
Mark Osborne	Associate Director	CEcol MCIEEM	2015-14412-CLS-CLS (Bats), 2015-14496-CLS-CLS (Bats), CLS 863 (GCN*), CL29/00185 (Barn Owl)
*GCN – Great Crested Newt			

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

D.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 the Chartered Institute of Ecology and Environmental Management⁷, 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.

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

⁷ Chartered Institute for Ecology and Environmental Management (2016) Guidelines for Ecological Impact Assessment in the UK and Ireland - Terrestrial, Freshwater and Coastal

TABLE 8: ECOLOGICAL RECEPTOR VALUATION	
Level of Value	Examples
	<p>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.</p> <p>The site is of functional importance** to a species population of county value (i.e. >1% of the county population)</p>
District	<p>A Local Wildlife Site (LWS) or equivalent, designated at a District level</p> <p>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.</p> <p>The site is of functional importance** to a species population of district value (i.e. >1% of the district population)</p>
Parish	<p>Area of habitat or species population considered to appreciably enrich the habitat resource within the context of the parish.</p> <p>Local Nature Reserves</p>
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.
<p><i>*Substantial defined as 'of considerable size or value within that area based on professional judgement, rather than a small, inconsequential area'</i></p> <p><i>** 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'</i></p>	

E. RESULTS

E.1 DESK STUDY

E.1.1 PRE-EXISTING INFORMATION

ORDNANCE SURVEY MAPPING AND AERIAL PHOTOGRAPHY

Figures 1 (B) and 3 (D1) show that the general land use in the surrounding area is dominated by upland pasture, interspersed with small, coniferous plantation blocks and farm steads. The A68 trunk road is present 800m to the east.

The most recent aerial photograph of the site (Figure 2, D1, 2006) indicates that habitats on site are dominated by grazed grassland. The aerial imagery indicates that a small area of coniferous plantation is present to the east of the proposed development site at the corner of the wider field. This was however not evident at the time of survey and has been felled at some point between 2006 and the present day, with the area now forming part of the grassland field.

MULTI AGENCY GEOGRAPHIC INFORMATION FOR THE COUNTRYSIDE WEBSITE⁸

Consultation with the Multi Agency Geographic Information for the Countryside (MAGIC) website indicated that there are no internationally or nationally designated sites within 2km, although highlighted that the site is found within the Northumberland National Park.

E.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.

Taxon	Species	No. of Records within Search Area	Records of Particular Note
Reptile	Common Lizard	1	>1km distant
Terrestrial Mammal	Eurasian Badger	3	>1km distant (2014)
	Eurasian Water Shrew	1	-
	European Otter	1	Most recent 2004
Butterfly	Large Heath	6	Most recent 2004
	Small Heath	7	All from 1996
Bats	Brown Long-eared Bat	4	Most recent 2014
	Common Pipistrelle	4	Most recent 2014
	Daubenton's Bat	3	Most recent 2011
	Soprano Pipistrelle	2	Most recent 2014
	Unidentified Bat	1	-
Fish	Whiskered/Brandt's Bat	3	Most recent 2014
	Atlantic Salmon	10	Most recent 1997
	Brook Lamprey	1	-
	European Eel	6	Most recent 2004
	Lamprey Sp.	1	-
	River Lamprey	1	-
	Brown Trout	9	Most recent 1997
Brown/Sea Trout	1	-	
Birds	Blackbird	1	-
	Carrion Crow	1	-
	Coal Tit	1	-
	Collared Dove	1	-

⁸ Multi Agency Geographic Information for the Countryside (MAGIC) www.magic.gov.uk

Common Gull	1	-
Dunlin	1	-
Duncock	1	-
Goldcrest	1	-
Goosander	1	-
Great Tit	1	-
Greylag Goose	1	-
Herring Gull	1	-
Jackdaw	1	-
Kingfisher	1	-
Lesser Black-backed Gull	1	-
Magpie	1	-
Meadow Pipit	2	-
Mistle Thrush	1	-
Pied Flycatcher	1	-
Rock Dove	1	-
Rook	1	-
Sand Martin	1	-
Spotted Flycatcher	1	-
Swallow	1	-
Wheatear	1	-
Willow Warbler	1	-
Wren	1	-

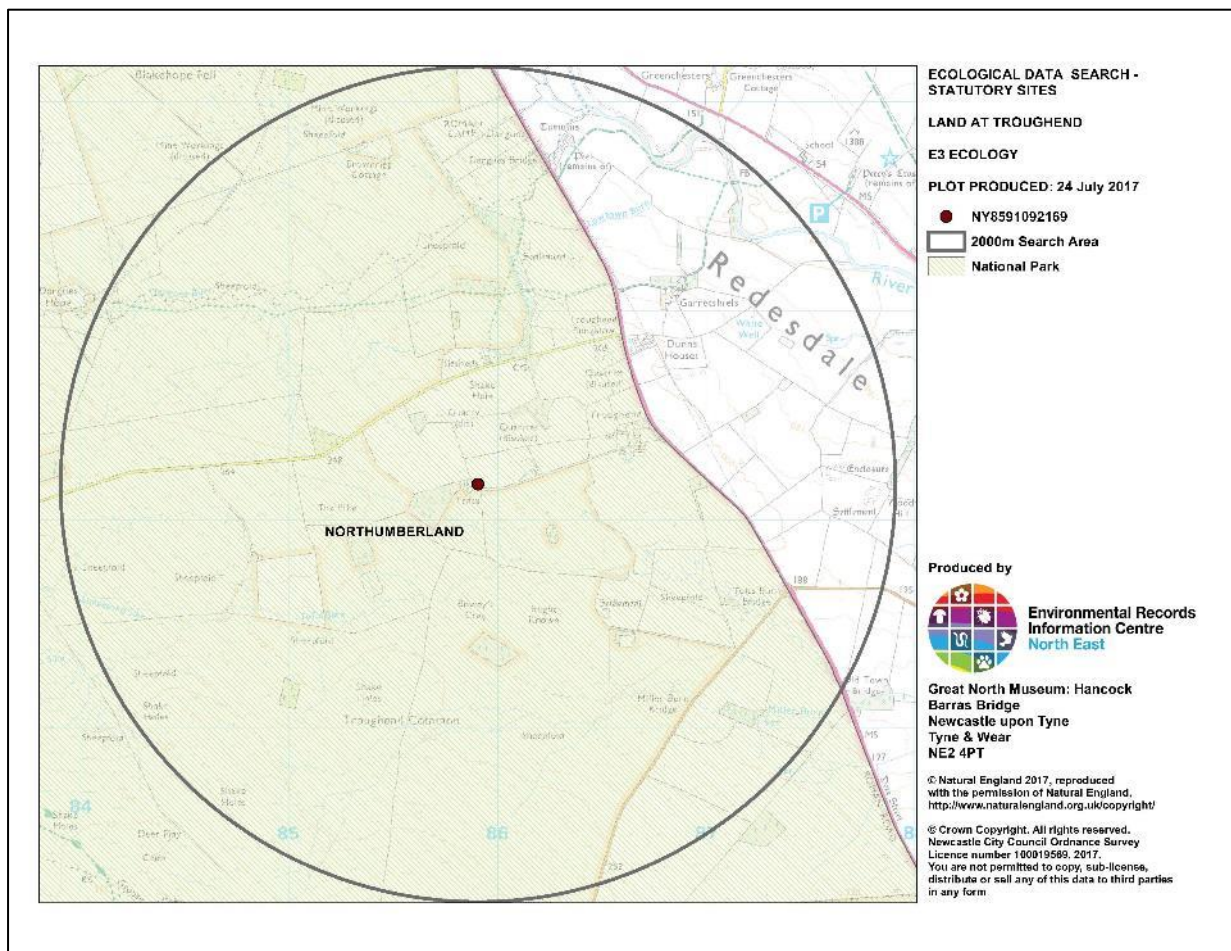


FIGURE 4: DESIGNATED SITES MAP (ERIC NE)

E.2 FIELD SURVEY

E.2.1 HABITATS

Preliminary Ecological Appraisal indicated that the proposed development site at Troughend comprises a small area of an improved grassland field, currently managed for silage production, with a species poor, coarse grassland margin present. A dry stone wall forms the western and southern boundaries with a farm access road present to the south and the remainder of the field to the north and east. Four mature sycamore trees are present within a small pony paddock on the western boundary although will be unaffected by the proposals

The habitats present within the survey area are illustrated within Figure 5 and described in more detail below.

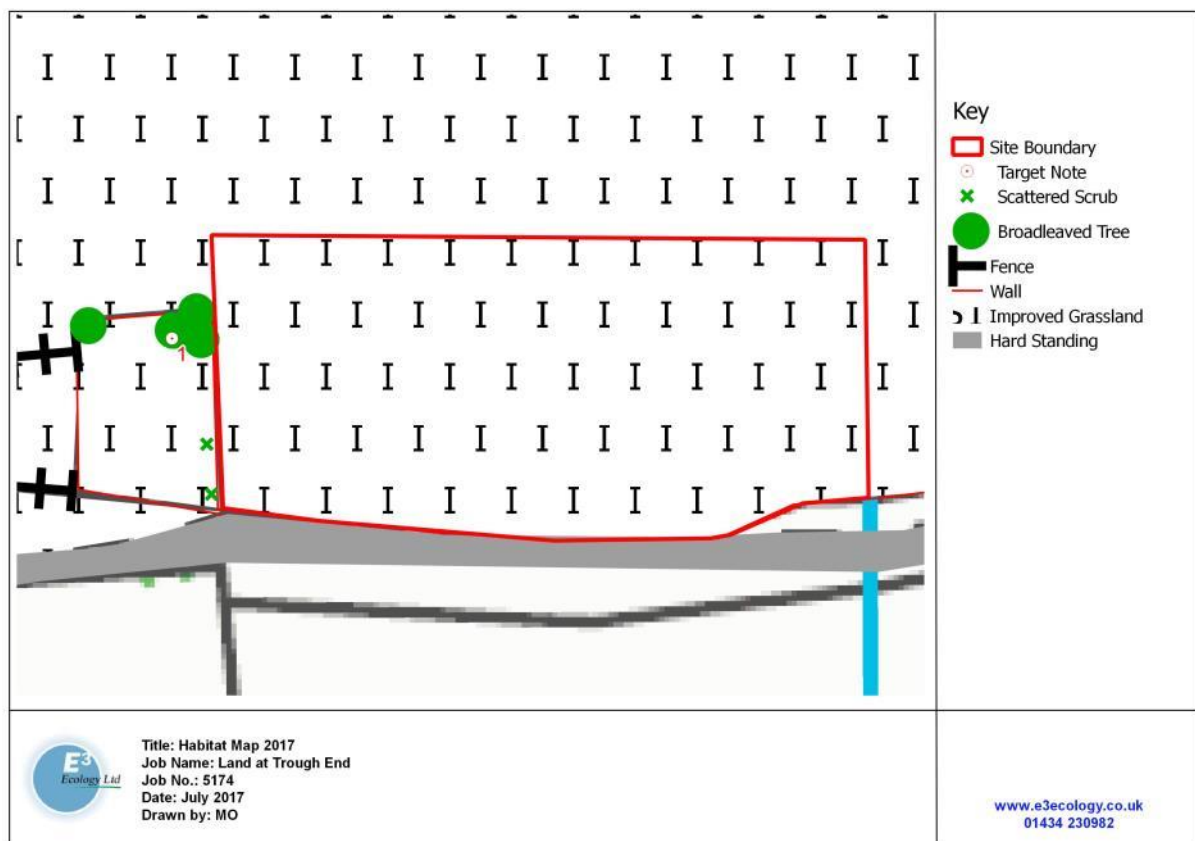


FIGURE 5: HABITAT MAP
(OS mapping © Crown copyright and database rights 2016/2017 OS 0100039392)

GRASSLAND

The site comprises a small area of a large improved grassland field. The field is managed for silage production and at the time of survey supported an average sward height of approximately 10cm. The sward comprised >95% grass coverage with only occasional forbs recorded. The grassland is dominated by perennial ryegrass (*Lolium perenne*) and occasional broad-leaved dock (*Rumex obtusifolius*), white clover (*Trifolium pratense*) and common mouse ear (*Cerastium fontanum*).



A “coarser” grassland margin, approximately 5m wide is present at the southern boundary, adjacent to a dry stone wall. The margin is species poor, although includes greater diversity than the main body of the field. Coarse grassland is also present within the verge of the access track on the southern boundary. Additional species within these areas include: cock’s-foot (*Dactylis glomerata*), Yorkshire fog (*Holcus lanatus*), creeping bent (*Agrostis stolonifera*), nettle (*Urtica dioica*), cow parsley (*Anthriscus sylvestris*), creeping buttercup (*Ranunculus repens*), creeping thistle (*Cirsium arvense*), spear thistle (*Cirsium vulgare*), cleavers (*Galium aparine*), tufted vetch (*Vicia cracca*), yarrow (*Achillea millefolium*), meadow foxtail (*Alopecurus pratensis*) and greater plantain (*Plantago major*).



SCATTERED SCRUB

Two small but mature hawthorn (*Crataegus monogyna*) specimens are present within a small paddock on the western boundary.



DRY STONE WALL

A dry stone wall forms the western and southern boundaries of the proposed development site.



E.2.2 SPECIES

BATS

The site supports no man-made or natural structures providing opportunities for roosting. Off-site roosting opportunities are provided by the farm stead to the west and to a limited extent the four mature sycamore trees. The site is small and exposed and therefore likely to be of limited foraging and commuting value. The trees to the west may provide a small area of more sheltered foraging.

BIRDS

A total of 5 species were recorded during the survey. The following table highlights the species recorded and their status on site.

Species	Number	Schedule 1	National Priority Species	Status on site
Chaffinch	3			Calling from trees
Goldfinch	2			Over flying
Magpie	1			Over flying
Meadow Pipit	3			Over flying
Swallow	2			Breeding in barns to the west
Notes: Amber listed species are listed by the BoCC as species of medium national conservation concern ⁹				

The site is small and comprises the corner of a larger field, as such it provides only limited habitat for ground nesting species due to the limited sightlines. The wide field and others in the local area are likely to support a range of ground nesting species such as skylark, meadow pipit and potentially curlew. The site is considered unlikely to be utilised by wintering bird species.

BADGER

The site provides very limited habitat for badger, with sett creation opportunities absent. Badger are likely to be present in the wider area and may pass although the site on occasion and potentially forage, however no evidence of the species was recorded during survey.

REPTILES

The site provides some limited habitat suitable for this taxon although no evidence was recorded.

RED SQUIRREL

The site lacks suitable habitats for red squirrel and as such this species is considered likely to be absent.

OTTER, WATER VOLE, GREAT CRESTED NEWT AND WHITE-CLAWED CRAYFISH

There are no areas of standing water on site or shown of ordnance survey maps or aerial imagery within 500m and no watercourses within 400m. As such, otter, water vole, great crested newts and white clawed crayfish are considered likely to be absent.

INVERTEBRATES

Based on the recorded nature of the grassland, priority invertebrates are considered likely to be absent.

NATIONAL PRIORITY AND LOCAL BAP SPECIES

The site may be utilised on occasion by brown hare, known to be present within the wider site.

⁹ Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (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

E.2.3 TARGET NOTES

TARGET NOTE 1 – FOUR MATURE SYCAMORE TREES

Four mature sycamore (*Acer pseudoplatanus*) trees are present on the western boundary within a small paddock. The trees are approximately 18-20m in height. The trees appear to have low potential to support roosting bats with a limited number of cavities and aerial dead wood recorded.



F. SITE ASSESSMENT

F.1 HABITATS

The improved grassland on site is managed for silage production, species poor and readily recorded in the wider area and as such is considered to be of low value.

F.2 NOTABLE SPECIES

There are no potential bat roosting opportunities present within the site, although the mature trees and farmstead to the west may provide some roosting opportunities. The site is small and exposed and is likely to be of limited foraging and commuting value, although the trees on the western boundary will provide some foraging opportunities. Due to the very small size of the site, the exposed location and the nature of the proposals, no further surveys are proposed.

The site provides limited opportunities to badger with no evidence of the species recorded. Presence of the species is likely to be restricted by the surrounding habitats but the species may utilise the coniferous woodland to the west. The risk of sett creation on site is considered likely to be negligible.

The mid summer timing of the survey meant that many of the upland breeding bird species present in the area will have moved off their breeding grounds and subsequently a narrow range of bird species were recorded during the survey. The small size of the site and its location, within a small corner of a larger field, suggests that ground nesting species such as skylark and curlew are likely to be absent from the proposed development area, although likely to be present within the rush pasture to the south. The development site is considered likely to be of low ornithological value.

There are no known areas of standing water present within 500m or watercourses present within the site or within 400m and subsequently aquatic species including otter, water vole and great crested newts are considered likely to be absent.

The dry stone walls provide some potentially suitable habitat for reptile species such as adder, common lizard and slow worm, known to be present in the Northumberland uplands, however the improved grassland is of lower suitability and the site is subsequently considered to be of low value to this taxa.

No other protected species are considered likely to be present on site given the lack of suitable habitat, although brown hare, a National Priority species, may utilise the site on occasion as they are known to be present within the wider area.

F.3 LIMITATIONS

It is considered that there were no limitations to the survey, although many of the upland bird species likely breeding locally will have moved to lower ground.

G. ECOLOGICAL CONSTRAINTS AND OPPORTUNITIES

Based on the preliminary appraisal, the following ecological constraints have been identified:

G.1 POTENTIAL IMPACTS AND/OR EFFECTS¹⁰

G.1.1 HABITATS

- Loss of a small area of improved grassland and coarser grassland margin.
- Repositioning of a dry stone wall.
- Damage to any off site trees through severance or asphyxiation of roots or damage to the crowns.

G.1.2 SPECIES

- Low level increase in disturbance to small numbers of bats that may forage around the offsite sycamore trees.
- Loss of a small area of improved grassland, with limited potential to support very small numbers of ground nesting bird species.
- Harm/disturbance to breeding birds, should any vegetation clearance/tree felling be carried out during the nesting season (March to August inclusive).
- Potential harm to mammal species through entrapment within excavations left open overnight.
- Loss of habitat used by and potential increased disturbance to the national priority species brown hare.
- Low residual risk of impacts on reptiles should they be present within the dry stone wall at the time of works.

G.2 POTENTIAL IMPACTS AND/OR EFFECTS ON STATUTORY AND NON STATUTORY SITES DESIGNATED FOR NATURE CONSERVATION

The proposed development is not predicted to have any impacts on statutory/non-statutory sites.

H. RECOMMENDATIONS

H.1 MITIGATION AND ENHANCEMENT

The following mitigation is recommended in relation to the potential ecological impacts of the proposed development.

TIMING OF WORKS

- Vegetation clearance/tree felling will be undertaken outside of the bird nesting season (March to August inclusive) unless a checking survey by a suitably experienced ornithologist confirms the absence of active nests.

¹⁰ An impact is defined as an action resulting in changes to an ecological feature. For example, construction works removing a hedgerow. An effect is defined as the outcome to an ecological feature from an impact. For example, the effect on a dormouse population of the loss of a hedgerow.

WORKING METHODS AND BEST PRACTICE

- Any excavations left open overnight will have a means of escape for mammals that may become trapped in the form of a ramp at least 300mm in width and angled no greater than 45°.
- The roots and crowns of retained trees will be protected throughout the development through the provision of adequate construction exclusion zones in accordance with the guidance given by BS5837:2012.

The proposed development provides an opportunity for the following enhancement measures to be implemented, contributing to local and/or national conservation targets.

ENHANCEMENT PROPOSALS

- The mature sycamore trees present just outwith the western boundary will be retained and unaffected by the proposed development.
- External lighting will be low level and kept to a minimum on site, in keeping with the dark skies initiative.
- The roots and crowns of the retained trees to the west will be protected throughout the development through the provision of adequate construction exclusion zones in accordance with the guidance given by BS5837:2012.
- Works to the dry stone wall will be undertaken to a Reptile Method statement, appended to this report, to address the low residual risk of this taxa being present.
- Areas of grassland at the site boundaries will be managed to increase biodiversity.

I. APPENDIX 1 - STATUTORILY AND NON-STATUTORILY DESIGNATED SITES

A1.i Statutorily Designated Sites

Ramsar Sites

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention recognizes 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 Areas (SPAs)

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

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 Regulations 2010 (as amended) unless they are offshore.

Sites of Special Scientific Interest

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 Reserves (NNRs)

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.

A1.ii Non-Statutorily Designated Sites

Local Nature Reserves (LNRs)

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-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 Sites (LWSs)

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.

J. APPENDIX 2 - REPTILE METHOD STATEMENT FOR THE DEVELOPMENT OF LAND TROUGHEND

This statement must be copied to the site owner, designer, clerk of works, and to those contractors whose work may affect reptiles, including those involved in all elements of the work detailed above. A signed copy should be kept at the site offices.

This method statement contains information regarding:

- Species identification ecology
- Working methods

	Print Name	Signature	Date
Supervisor:			
Operative:			
Operative:			
Operative:			
Operative:			

REPTILES

Relevant Legislation

There are six native species of reptile; these are adder, grass snake, smooth snake, common lizard, sand lizard and slow worm. All native reptiles, are protected under the Wildlife and Countryside Act 1981 and its subsequent amendments and listed on Schedule 5. It is an offence to:

- Intentionally kill, injure or sell (or advertise to sell) any of the 6 native species.

In addition smooth snake and sand lizard receive further protection under the Wildlife and Countryside Act (1981) and the Conservation of Habitats and Species Regulations (as amended 2010). It is also an offence to:

- Intentionally or recklessly disturb individuals that are occupying a place of rest or shelter of these species or obstruct access to such a place.
- Intentionally disturb these species.
- Possess these species, unless acquired legally.

Approaches which minimise the risk of protected species being killed and which help to maintain their conservation status in the local area should be adopted. Where disturbance or harm cannot be avoided, a mitigation licence must be applied for.

Ecology

The favoured habitats for most reptile species are heathland, scrub, rough grassland, coastal dunes and moorland. Typically, snakes have a large home range, sometimes covering several kilometres in a year, while lizards will only range over 10s of metres giving a home range of below 1000 square metres.

Particularly high-risk areas of habitat within this site are:

- Areas of tall ruderal vegetation and adjacent species-poor semi-improved grassland
- Hedge-lines and banks

Between October and March, reptiles hibernate below ground, often in large mammal burrows or other refuges both natural and man-made. Most species emerge from hibernation from early March and remain active through until September, during which period reptiles are most commonly seen basking in the open when temperatures are between 8 and 16°C. Most species will avoid extremes of temperature by taking refuge underground, both at night and when temperatures become too high during the day. Young are born/hatch during early to mid-summer.



Working Methods

Standard working methods, to minimise the risk of harming or killing reptiles should include the following:

- Any areas of rocks, dry stone walls, rubbish or fallen timber that have been present within the area to be cleared for over 3 months are to be searched by hand before the start of works in that area
- Vegetation should be cleared progressively using hand tools to provide animals with an opportunity to move out of the area. Areas of tall grassland should be strimmed, and scrub cut down to ground level and removed.
- Following vegetation clearance the area should be left for several days to allow any animals to move out of the area before any excavation commences.
- If reptiles are found during the clearance operations they should be moved to adjacent areas of suitable habitat that are not affected by development.

In case of queries please contact the project ecologists E3 Ecology Ltd 01434 230982.