

# ECOLOGICAL APPRAISAL

## HESLEYSIDE HUT



JULY 2019

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## A. SUMMARY

E3 Ecology Ltd was commissioned by Mr William Charlton in July 2019 to undertake an Ecological Appraisal of the proposed site of a holiday hut at Hesleyside, Bellingham.

It is proposed to construct a single holiday hut in the corner of a large field, using screw pile foundations. A pedestrian track will be created from the proposed parking area adjacent to an existing drive through an area of woodland to allow holiday makers to reach the hut. This will not include any vehicle access. Access for construction materials will be through a second large semi-improved field, along a route currently used by tractors. This will then go along an existing track through a section of woodland into the field where the hut is being constructed. It is not proposed to create a permanent or tarmacadam road for this access.

Where waste water is taken from the structure it is proposed to be taken to the south through the field before entering into the woodland, where a Matrix treatment plant is to be installed. This plant (approx. 1.7m diameter x 2.1m deep) will be installed in a clearing within the woodland, using a tracked mini-digger and will not require a construction track to be created, or involve any tree loss. It is understood that the treatment plant is designed to meet all Environment Agency standards.

Consultation with the MAGIC website<sup>1</sup> indicated that Hesleyside Site of Special Scientific Interest (SSSI) lies approximately 150m away, which is also listed as ancient woodland. The site is within the Impact Risk Zone (IRZ) for this SSSI. Potentially this includes a category relevant to this site '*Mechanical and biological waste treatment, inert landfill, non-hazardous landfill, hazardous landfill, household civic amenity recycling facilities construction, demolition and excavation waste, other waste management*'. However, as the proposal is for a holiday hut with a packaged treatment plant, which will be located in the woodland to the north, downhill of the proposed development, outside the SSSI, it is not considered that this proposal will impact on the SSSI. The area of woodland which will be affected by the proposals is outside the SSSI and is not listed as ancient woodland, but is listed as Wood pasture and Parkland priority habitat and on the National Forestry inventory. There are 3 Local Wildlife Sites within 2km.

Ecological Appraisal indicated that the site of the hut forms a very small area within a large sheep grazed semi-improved pasture. It will lie immediately adjacent to two mature trees, a sycamore and a Scots pine. The pedestrian track will be through an area of mixed plantation woodland with limited ground flora. Construction materials will be brought in through a sheep grazed semi-improved pasture field, along a track currently used by tractors, and then through an existing clearing within the mixed plantation woodland. Proposals may lead to the loss of a small number of silver birch and Scots pine trees in this area of woodland to allow access. A small parking area will be created on a grassland verge and on bare ground on the woodland edge, adjacent to an existing drive. The majority of the habitat is considered to be of local habitat value. The Scots pine adjacent to the proposed hut is considered of parish value, given its maturity; however, this is shown as being retained as part of the proposals.

The arboricultural report (*ECL Arboricultural Impact assessment Method Statement Protection Plan 'The Tree House'*) does not highlight the requirement for any tree removal for the proposed hut, or to allow the installation of the waste water drainage pipe, treatment plant or car parking, but has recommended working methods to minimise impacts on trees.

The Scots pine adjacent to the hut is considered of moderate to high suitability for roosting bats. The mature sycamore in this location is of low suitability. All other trees in areas affected

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<sup>1</sup> MAGIC website: [www.magic.gov.uk](http://www.magic.gov.uk)

are of low-negligible suitability. It is not considered, given the scale of the proposals, that any bat foraging habitat will be lost.

Badger and red squirrel are known to be present within the wider area, but no evidence of either was recorded within any area affected by the proposals. Mammal trails were present within the wider woodland, but no evidence of badger setts, dung pits or badger hair were recorded within 30m of the proposed work area. Both species are likely to forage within both the woodland and fields, and there is potential for sett and drey creation within the woodland.

The small footprint of the proposed development is likely to be of up to local value to bats, badger and red squirrel, but to form a very small part of a larger foraging and commuting area of parish to district value for these species.

Birds are likely to nest within the site, with the woodland and mature trees providing suitable habitat, and the grassland providing foraging opportunities; however, given the small footprint, the site is likely to be of no more than local value to birds.

The River North Tyne lies approximately 195m to the north east of the site. Otter are known to be present along the river; however, given the distance from the site and the very small area of habitat affected, there is considered only a very low risk of their presence on site and the site is likely to be of low value to the species.

Reptiles may be present within the woodland, with records of common lizard within 380m, but it is not considered that proposals will lead to the loss of suitable habitat. If present, the site is likely to be of no more than low to local value for the species.

No other protected species are likely to be affected by the proposals. The UK priority species hedgehog and brown hare may be present but the site is likely to be of no more than local value to these species.

Rhododendron is present within the woodland. This species is listed as invasive on Schedule 9 of the Wildlife & Countryside Act 1981 (as amended).

Given the small scale of the proposal, the proposed development is not predicted to have any impacts on statutory/non-statutory sites.

Potential impacts of the development are anticipated to include:

- Loss of a small number of broadleaf and conifer trees should the existing track through the woodland require widening to allow construction access.
- Loss of or damage to red squirrel dreys and/or badger setts, should any form within 30m of the proposed development footprint prior to works commencing.
- Damage to retained trees during the construction period.
- Loss of a very small area of semi-improved pasture and woodland ground flora; the majority of the woodland where any routes are proposed has limited ground flora, and the footprint of the proposals is very small.
- Harm to mammals during the construction period if any trenches/holes are left open overnight.
- Harm to nesting birds should dense vegetation/tree removal be undertaken in the nesting bird period (March to August inclusive).
- Increased lighting around the site impacting on mammal and bird foraging habitat, and particularly the potential bat roosts within the Scots pine.
- Very low risk of harm to reptiles, should they be present in the woodland.
- Spread of an invasive species, particularly through the creation of the drainage route.

Key mitigation measures include:

- Within 2 months prior to works commencing, a checking survey should be undertaken to ensure no badger setts or red squirrel dreys have formed within or adjacent to the proposed 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.
- 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 and in accordance with the arboricultural report
- External light levels should be kept low level (less than 2m) and low lumen (less than 2 lux) and no security lighting will be installed.
- Works will be undertaken to a precautionary reptile method statement.
- Four bat and four bird boxes will be erected on trees on the woodland edge to provide further habitat enhancement.
- Should any rhododendron require removal, works will be undertaken to a suitable method statement to prevent its spread.

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 planning documents.

It is considered with the above mitigation and enhancement, and small scale of the proposals, the development will lead to a small net gain in biodiversity through provision of bat and bird boxes, long term management of the plantation woodland to maturity to maintain the habitat around the proposed hut. It is also recommended woodland management includes control of rhododendron.

*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 William Charlton in July 2019 to undertake an Ecological Appraisal of the proposed site of a holiday hut at Hesleyside, Bellingham.

The purpose of this report is:

- To identify and describe all potentially significant ecological effects associated with the proposed development
- To set out the mitigation measures required to ensure compliance with nature conservation legislation and to address any potentially significant ecological effects
- To identify how mitigation measures will/could be secured
- To identify appropriate enhancement measures

The site is located at Hesleyside, to the north west of Bellingham, at an approximate central grid reference of NY 819 835. The site location is illustrated in the figure below.



**FIGURE 1: SITE LOCATION**  
(Under licence from Google Earth)

It is proposed to construct a single holiday hut on the site, using screw pile foundations. A pedestrian track of hoggin or bark will be created from the proposed parking area adjacent to an existing drive through the woodland to allow holiday makers to reach the hut. This will not include any vehicle access. Access for construction materials will be through a second large semi-improved field, along a route currently used by tractors and then along a track through woodland. It is not proposed to create a permanent or tarmac road for this access.



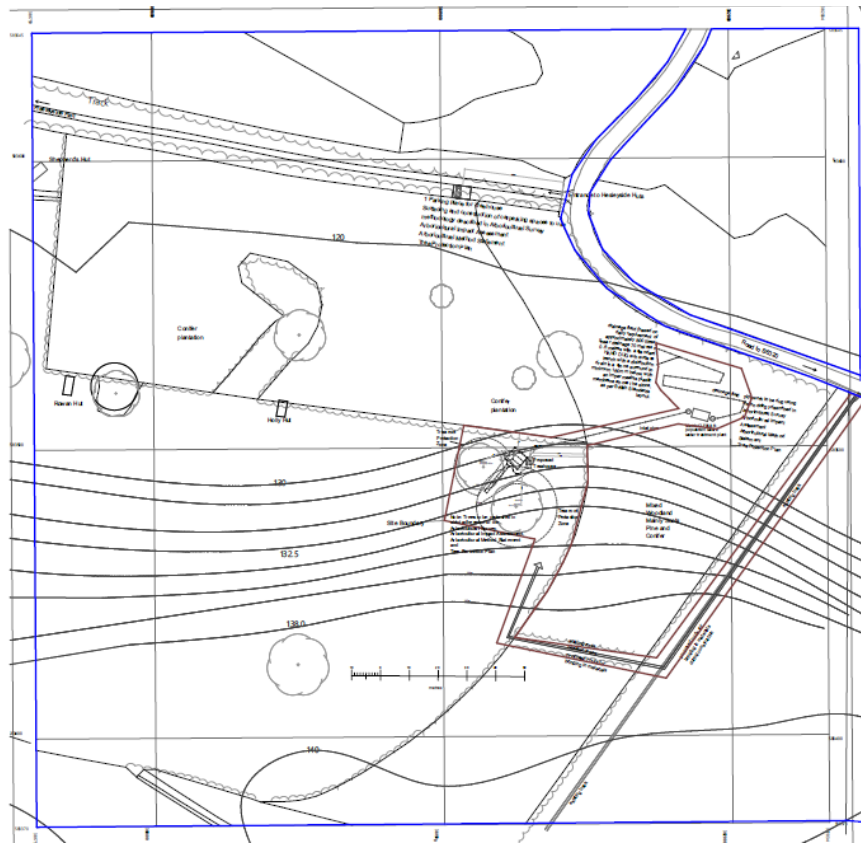


FIGURE 2: DEVELOPMENT PROPOSALS COURTESY OF NEWTON ARCHITECTS

## C. PLANNING POLICY AND LEGISLATIVE CONTEXT

### C.1 NATIONAL PLANNING POLICY

The table below details the key paragraphs from the National Planning Policy Framework (NPPF)<sup>2</sup> relating to the natural environment:

TABLE 1: NATIONAL PLANNING POLICY FRAMEWORK: CONSERVING AND ENHANCING THE NATURAL ENVIRONMENT	
Statement	Paragraph
<p>Planning policies and decisions should contribute to and enhance the natural and local environment by:</p> <ul style="list-style-type: none"> <li>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);</li> <li>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;</li> <li>c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;</li> <li>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;</li> <li>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</li> <li>f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.</li> </ul>	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 <sup>3</sup> ; 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
<p>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<sup>4</sup>. The scale and extent of development within these designated areas should be limited. Planning permission should be refused for major development<sup>5</sup> 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:</p> <ul style="list-style-type: none"> <li>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;</li> <li>b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and</li> <li>c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.</li> </ul>	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	173

<sup>2</sup> National Planning Policy Framework (February 2019), Department for Communities and Local Government,

<sup>3</sup> 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.

<sup>4</sup> 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.

<sup>5</sup> 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.

<b>TABLE 1: NATIONAL PLANNING POLICY FRAMEWORK: CONSERVING AND ENHANCING THE NATURAL ENVIRONMENT</b>	
<b>Statement</b>	<b>Paragraph</b>
Heritage Coast is unlikely to be appropriate, unless it is compatible with its special character.	
To protect and enhance biodiversity and geodiversity, plans should: <ul style="list-style-type: none"> <li>a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity<sup>6</sup>; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation<sup>7</sup>; and</li> <li>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.</li> </ul>	174
When determining planning applications, local planning authorities should apply the following principles: <ul style="list-style-type: none"> <li>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;</li> <li>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;</li> <li>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<sup>8</sup> and a suitable compensation strategy exists; and</li> <li>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.</li> </ul>	175
The following should be given the same protection as habitats sites: <ul style="list-style-type: none"> <li>a) potential Special Protection Areas and possible Special Areas of Conservation;</li> <li>b) listed or proposed Ramsar sites<sup>9</sup>; and</li> <li>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.</li> </ul>	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<sup>10</sup> states:

<sup>6</sup> Circular 06/2005 provides further guidance in respect of statutory obligations for biodiversity and geological conservation and their impact within the planning system.

<sup>7</sup> 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.

<sup>8</sup> 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.

<sup>9</sup> 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.

<sup>10</sup> Planning Practice Guidance: Natural Environment ([www.planningguidance.communities.gov](http://www.planningguidance.communities.gov))

- *'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).
- *'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.

Species	Relevant Legislation	Level of Protection
<b>Bats (All species)</b>	<ul style="list-style-type: none"> <li>• Protection under the Wildlife and Countryside Act (WCA) (1981) (Listed on Schedule 5) - as amended</li> <li>• Classified as European protected species under Conservation of Habitats and Species Regulations 2017</li> <li>• Bats are also protected by the Wild Mammals (Protection) Act 1996</li> </ul>	The WCA (1981) and Conservation of Habitats and Species Regulations 2017 make it an offence to: <ul style="list-style-type: none"> <li>• Intentionally kill, injure, or take any species of bat</li> <li>• Intentionally or recklessly disturb bats</li> <li>• Intentionally or recklessly damage destroy or obstruct access to bat roosts</li> </ul>
<b>Otter</b>	<ul style="list-style-type: none"> <li>• Protection under the Wildlife and Countryside Act (WCA) (1981) (Listed on Schedule 5) - as amended</li> <li>• Classified as European protected species under Conservation of Habitats and Species Regulations 2017</li> <li>• Otters are also protected by the Wild Mammals (Protection) Act 1996</li> </ul>	The WCA (1981) and Conservation of Habitats and Species Regulations 2017 make it an offence to: <ul style="list-style-type: none"> <li>• intentionally kill, injure, or take otters</li> <li>• intentionally or recklessly disturb otters</li> <li>• intentionally or recklessly amage destroy or obstruct access to otter holts or any place used by the animal for shelter or protection</li> </ul>
<b>Red Squirrel</b>	<ul style="list-style-type: none"> <li>• Full protection under the Wildlife and Countryside Act (WCA) (1981) (Listed on Schedule 5) - as amended</li> <li>• Red squirrels are also protected by the Wild Mammals (Protection) Act 1996</li> </ul>	The WCA (1981) makes it an offence to: <ul style="list-style-type: none"> <li>• intentionally kill, injure, or take red squirrels</li> <li>• intentionally or recklessly damage destroy or obstruct access to any place used by the animal for shelter or protection or disturb red squirrels whilst they are using such a place.</li> </ul>

**TABLE 2: SUMMARISED SPECIES LEGISLATION**

Species	Relevant Legislation	Level of Protection
<b>Birds</b>	<ul style="list-style-type: none"> <li>Protection under the Wildlife and Countryside Act (1981) as amended with the exception of some species listed in Schedule 2 of the Act</li> </ul>	<p>The WCA (1981) makes it an offence to (with exceptions for certain species):</p> <ul style="list-style-type: none"> <li>Intentionally kill, injure or take any wild bird</li> <li>Intentionally take, damage or destroy nests in use or being built (including ground nesting birds)</li> <li>Intentionally take, damage or destroy eggs</li> <li>Species listed on Schedule 1 of the WCA or their dependant young are afforded additional protection from disturbance whilst they are at their nests</li> </ul>
<b>Badger</b>	<ul style="list-style-type: none"> <li>Protection of Badgers Act 1992</li> <li>Badgers are also protected by the Wild Mammals (Protection) Act 1996</li> </ul>	<p>The Protection of Badgers Act (1992) makes it an offence to intentionally or recklessly:</p> <ul style="list-style-type: none"> <li>Damage a badger sett or any part of it</li> <li>Destroy a badger sett</li> <li>Obstruct access to, or any entrance of a badger sett</li> <li>Disturb a badger whilst it is occupying a badger sett</li> </ul>
<b>Common reptiles (Slow-worm, Adder, Grass Snake, Common Lizard)</b>	<ul style="list-style-type: none"> <li>Partially protected by the Wildlife and Countryside Act</li> </ul>	<p>The WCA (1981) makes it an offence to:</p> <ul style="list-style-type: none"> <li>intentionally kill or injure these animals</li> <li>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</li> </ul>

*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.*

### 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)	<p>Section 14 of the WCA (1981) states:</p> <ul style="list-style-type: none"> <li>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.</li> </ul>	<p>Himalayan balsam Cotoneaster Montbretia Japanese knotweed Giant hogweed Rhododendron</p>

### 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 species/species groups and habitats listed as priorities within the local biodiversity action plan relevant to the area within which this site lies.

<b>TABLE 4: BIODIVERSITY ACTION PLAN</b>					
<b>Northumberland Biodiversity Action Plan</b>					
<b>Species</b>			<b>Habitats</b>		
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 green line boundary as defined within the figure below 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

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



**FIGURE 3: SITE BOUNDARY, INCLUDING POTENTIAL CONSTRUCTION ACCESS, DRAINAGE AND PEDESTRIAN ACCESS ROUTES**  
(Reproduced under licence from Google Earth Pro.)



**FIGURE 4: 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 2019, 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<sup>11</sup> 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 manual<sup>12</sup>. 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.

#### **D.3.1.2 SURVEY EQUIPMENT**

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

- Digital camera
- Optricron 8 x 32 binoculars

### **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 species<sup>13</sup> 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.

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<sup>11</sup> MAGIC Website: [www.magic.gov.uk](http://www.magic.gov.uk)

<sup>12</sup> Handbook for Phase 1 habitat survey, A Technique For Environmental Audit, JNCC, 2010

<sup>13</sup> 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



- 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 Guidelines<sup>14</sup> and detailed within the table below.

<b>TABLE 5: GUIDELINES FOR ASSESSING THE POTENTIAL SUITABILITY OF PROPOSED DEVELOPMENT SITES FOR BATS, BASED ON PRESENCE OF ROOSTING HABITAT FEATURES (TREES)</b> <i>(TO BE APPLIED USING PROFESSIONAL JUDGEMENT, TABLE 4.1 BAT SURVEY GUIDELINES)</i>	
<b>Suitability</b>	<b>Roosting Habitats</b>
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, 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.

<b>TABLE 6: SURVEY CONDITIONS</b>				
<b>Date</b>	<b>Temperature</b>	<b>Cloud Cover</b>	<b>Precipitation</b>	<b>Wind Conditions</b>
2.7.19	14°C	80%	Dry	F2

<sup>14</sup> Collins, J. (ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3<sup>rd</sup> Edition). Bat Conservation Trust

## D.4 PERSONNEL

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

Name	Position	Professional Qualifications	Natural England Survey Licence Numbers
Mary Martin	Director	BSc MCIEEM	2015-12822-CLS-CLS (Bats)

Further details of experience and qualifications are available at [www.e3ecology.co.uk](http://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 Management<sup>15</sup>, 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
<b>International</b>	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)
<b>National</b>	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)
<b>Regional</b>	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)
<b>County</b>	A Local Wildlife Site (LWS) or equivalent, designated at a County level
	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.

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

Level of Value	Examples
	The site is of functional importance** to a species population of county value (i.e. >1% of the county population)
<b>District</b>	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)
<b>Parish</b>	Area of habitat or species population considered to appreciably enrich the habitat resource within the context of the parish.
	Local Nature Reserves
<b>Local</b>	Habitats and species that contribute to local biodiversity but are not exceptional in the context of the parish.
<b>Low</b>	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'.	

## E. RESULTS

### E.1 DESK STUDY

#### E.1.1 PRE-EXISTING INFORMATION

##### ORDNANCE SURVEY MAPPING AND AERIAL PHOTOGRAPHY

The figures in Section B and D show that the general land use in the surrounding area is woodland, pasture and parkland.

The most recent aerial photograph of the site (Section D, 2014) indicates that habitats on site are dominated by woodland and pasture. Historic imagery suggests that this has not changed since at least 2002.

##### MAGIC WEBSITE<sup>16</sup>

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

Designation	Site Name	Brief Reason for Designation	Distance from Survey Area
Site of Special Scientific Interest	Hesleyside Park	Old mature woodland supporting a rich lichen flora	~150m

The site is within the Impact Risk Zone (IRZ) for this SSSI. Potentially this includes a category relevant to this site '*Mechanical and biological waste treatment, inert landfill, non-hazardous landfill, hazardous landfill, household civic amenity recycling facilities construction, demolition and excavation waste, other waste management*'. However, as the proposal is for a holiday hut with a treatment plant, which will be located in the woodland to the north of the proposed development, outside the SSSI, it is not considered that this proposal will impact on the SSSI.

<sup>16</sup> Multi Agency Geographic Information for the Countryside (MAGIC) [www.magic.gov.uk](http://www.magic.gov.uk)

The area of woodland which will be affected by the proposals is outside the SSSI and is not listed as ancient woodland, but is listed as Wood pasture and Parkland priority habitat and is on the National Forestry inventory.

### LOCAL KNOWLEDGE

The site owner is aware of badger, including setts, and red squirrel within the Hesleyside estate, but not within the plantation woodland where the proposed works will be undertaken.

### E.1.2 CONSULTATION

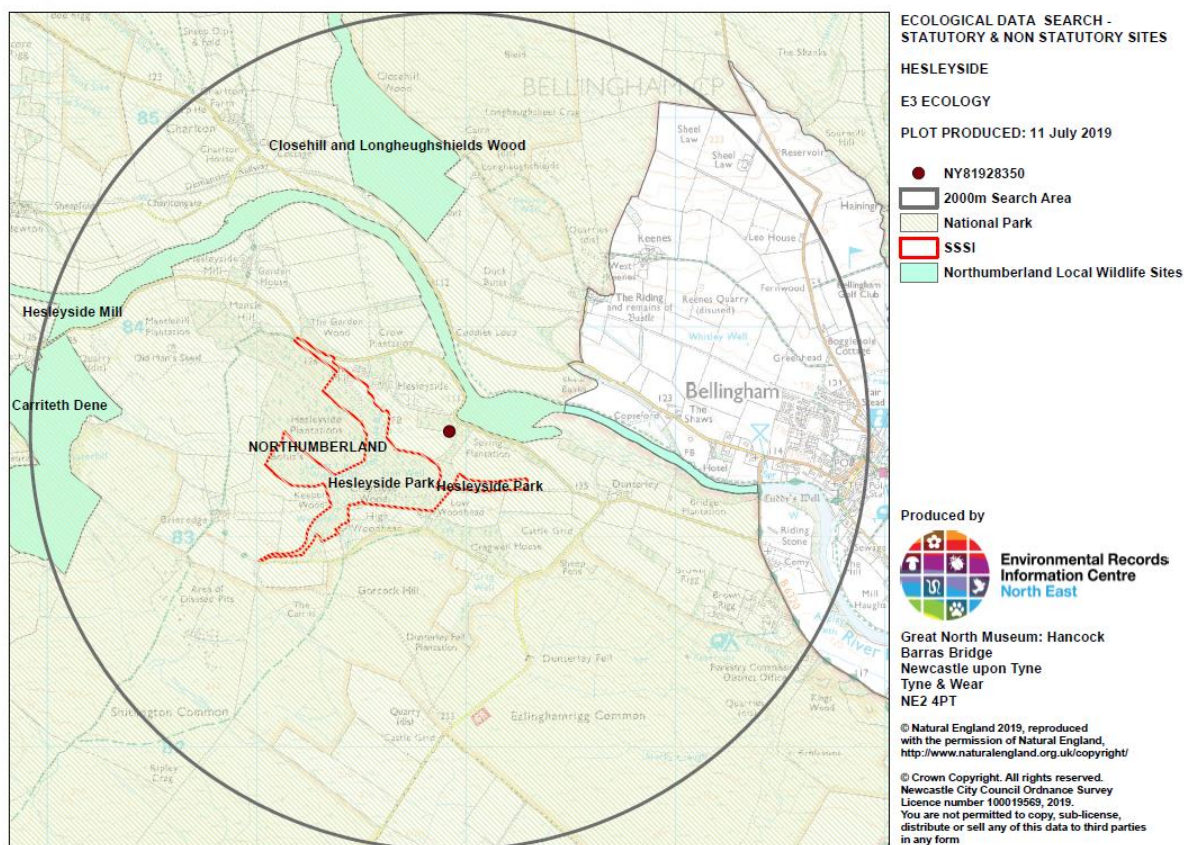
#### LOCAL RECORD CENTRE

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

<b>TABLE 10: CONSULTATION RECORDS</b>		
<b>Species</b>	<b>No. of Records within Search Area</b>	<b>Approx. Distance from site (m)</b>
<b>amphibian</b>	<b>4</b>	<b>1122</b>
Common Frog	3	1122
Common Toad	1	1747
<b>insect - butterfly</b>	<b>3</b>	<b>1296</b>
Small Heath	3	1296
<b>reptile</b>	<b>6</b>	<b>380</b>
Adder	4	1122
Common Lizard	2	380
<b>terrestrial mammal</b>	<b>333</b>	<b>80</b>
American Mink	11	393
Bats	3	1218
Brown Hare	4	1405
Brown Long-eared Bat	1	--
--Common Pipistrelle	62	409
Daubenton's Bat	1	1954
Eastern Grey Squirrel	69	80
Eurasian Badger	13	377
Eurasian Red Squirrel	94	80
Eurasian Water Shrew	1	1983
European Otter	12	393
European Water Vole	1	1673
Hedgehog	1	1583
Long-eared Bat species	1	1913
Noctule Bat	2	--
Pipistrelle Bat species	2	788
Roe Deer	8	377
Soprano Pipistrelle	32	268
Unidentified Bat	4	183
West European Hedgehog	8	516
Whiskered/Brandt's Bat	3	1913

The records centre also provided 144 bird records; within 500m (where distances are provided) mistle thrush, blackbird, wren, pheasant, great spotted woodpecker, crow, wood pigeon, tree creeper and buzzard have been recorded. Of these records, only 1 (buzzard) was a post 2000 record.

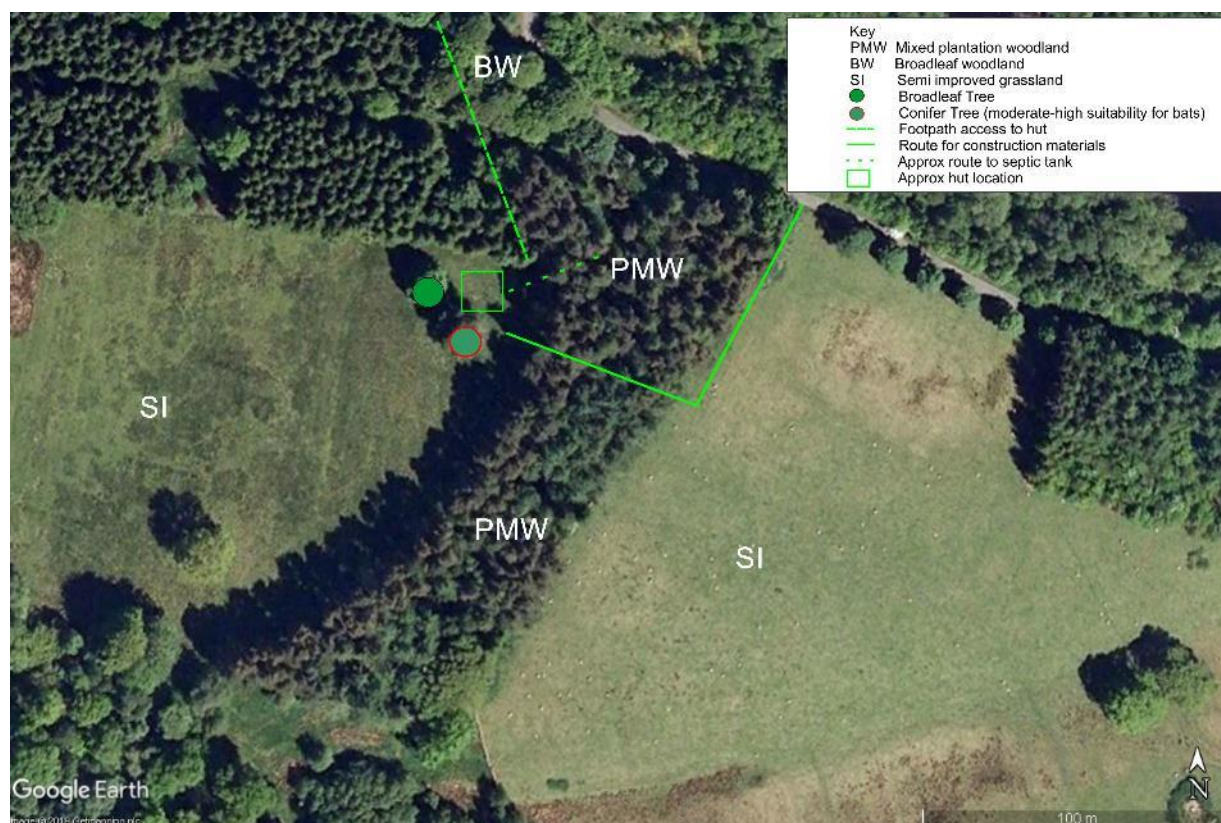
In addition, the records centre provided information relating to the following non-statutory designated sites which lie within the search area:



## E.2 FIELD SURVEY

### E.2.1 HABITATS

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



**FIGURE 5: HABITAT MAP**  
 (Reproduced under licence from Google Earth Pro)

**GRASSLAND**

The proposed hut will be in the corner of a wider sheep-grazed pasture field. In the location of the hut, grassland was around 20cm high at the time of the survey, with the majority of the remainder of the field more closely grazed, but with some areas of rushes. The sward of the proposed hut site was around 90% grass dominated, with species including perennial ryegrass *Lolium perenne*, tufted hair grass *Deschampsia cespitosa*, white clover *Trifolium repens*, creeping thistle *Cirsium arvense*, nettle *Urtica dioica*, common sorrel *Rumex acetosa* and occasional speedwell *Veronica sp.*, with the wider field being of a similar species composition but including cocksfoot *Dactylis glomerata*, Yorkshire fog *Holcus lanatus*, and rushes *Juncus sp.*



The field through which the access track is proposed has a wider species mix, including rye grass, creeping buttercup *Ranunculus repens*, white clover, meadow grass *Poa sp.*, bent grass *Agrostis sp.*, crested dog's tail *Cynosurus cristatus*, daisy *Bellis perennis*, common mouse ear *Cerastium fontanum*,

occasional self heal *Prunella vulgaris*, sweet vernal grass *Anthoxanthum odoratum*, and brome *Bromus sp.* The proposed track is currently used informally by the farmer, with some bare ground marking the track from the gate up the hill, then grading into grass. The area of the track has fewer species than that of the wider field.

The proposed parking area is on a species-poor grassland verge adjacent to an existing drive.



### TREES

Adjacent to the proposed hut is a mature sycamore and mature to over mature Scots pine. These are to be retained as part of the proposals.



### WOODLAND

The woodland through which the pedestrian access route, drainage route and construction track will go and in which the treatment plant will be placed is a mixed plantation woodland dominated by silver birch *Betula pendula* and Scots pine *Pinus sylvestris* with some larch *Larix sp.*, spruce *Picea sp.*, and occasional beech *Fagus sylvatica*. The construction route will be via an existing clearing, with an understorey dominated by ferns *Dryopteris sp.* or bare ground, but with some bramble *Rubus fruticosus*, wood sorrel *Oxalis acetosella*, brome *Bromus sp.*, and occasional common dog violet *Viola riviniana* and creeping cinquefoil *Potentilla reptans*. The pedestrian route is largely dominated by bare ground with some fern and bramble understorey, whilst the drainage route will go through an area with denser bramble and rhododendron. Rhododendron is also present just to the north of the proposed construction track. This species is listed as invasive on Schedule 9 of the Wildlife & Countryside Act 1981. Large pheasant pens have only recently been removed from the area just to the north of the construction access track.



## E.2.2 SPECIES

### **BATS**

The Scots pine adjacent to the proposed hut is considered to be of moderate to high suitability for roosting bats, with areas of dead wood and a number of potentially suitable crevices noted in the upper branches. The sycamore is considered of low suitability. The trees within the woodland where routes are proposed are all considered to be of low to negligible suitability. Woodland and pasture will provide some good quality foraging habitat, although this will be retained.



### **GREAT CRESTED NEWT**

There is a potential ox-bow pond approximately 360m to the north east of the site shown on Ordnance survey but not visible on aerial imagery. However, this is on the other side of the River Tyne, which is likely to form a barrier to newt movement. The local records centre has not provided any great crested newt records within 2km. No other ponds are known within 500m and great crested newts are considered likely to be absent from the site.

### **BIRDS**

Trees and woodland will provide nesting habitat for a small range of farmland and woodland birds, with the grassland providing foraging habitat.

### **BADGER**

No evidence of badger setts was recorded within 30m of any elements of the proposed works. Some mammal trails, potentially badger or deer, are present through the wider woodland. They are known to be in the wider area and the woodland provides habitat suitable for sett creation and both woodland and grassland are suitable for foraging.

### **OTTER AND WATER VOLE**

The river North Tyne lies approximately 195m to the north west and otter are known to use the river corridor. However, given the distance from the river and small area of proposed development, otter are most likely to be absent from the development site. Water vole are likely to be absent from site.

### **REPTILES**

The woodland would provide some suitable habitat for reptiles, although none were recorded during the survey and the site owner is not aware of reptiles in the locality. There is a common lizard record within 500m, although this is from the 1970's.

### **RED SQUIRREL**

The species are known to be in the wider area and the woodland provides suitable habitat, but no dreys were recorded within the sections to be affected at the time of survey. Both red and grey squirrel records have been provided by the local records centre approximately 80m from the site.

### **INVERTEBRATES**

The site lacks the suitable larval food plants to support a notable butterfly population.

### **NATIONAL PRIORITY AND LOCAL BAP SPECIES**

Hedgehog and brown hare may be present.



## **F. SITE ASSESSMENT**

### **F.1 HABITATS**

The site comprises semi-improved grassland, mature trees and mixed plantation woodland, the majority of which is considered to be of local value, but given the age of the Scots pine by the proposed hut, this is considered to be of parish value. The plantation woodland is listed as Wood pasture and Parkland priority habitat and is on the National Forestry inventory.

### **F.2 NOTABLE SPECIES**

The Scots pine is considered to provide moderate to high suitability roosting opportunities for bats, with the remainder of low or low to negligible suitability. The conifer will be retained, and no tree loss requirement is highlighted within the arboricultural report.

No evidence of badger setts or red squirrel dreys were recorded, but both species are known to be in the wider area.

The pasture and woodland will provide habitat of local value to bats, badger and red squirrel, and given its small footprint is considered to be part of a wide network of habitat of parish to district value.

There is a low risk that reptiles may be present within the woodland and a very low risk that otter may occasionally forage across the site. Hedgehog and brown hare may also be present. The site is likely to be of no more than local value to these species. No other protected or notable species are likely to be affected by the proposals.

### **F.3 LIMITATIONS**

The quality of field data will be affected by the season of the survey, with some plant species only being evident or identifiable at certain times of the year; however, species such as bluebell and ramsons would still be evident, and it is considered a robust assessment has been possible.

## **G. IMPACT ASSESSMENT**

### **G.1 POTENTIAL IMPACTS AND/OR EFFECTS<sup>17</sup>**

#### **G.1.1 HABITATS**

- Damage to retained trees during the construction period.
- Loss of a very small area of semi-improved pasture and woodland ground flora; the majority of the woodland where any routes are proposed has limited ground flora, and the footprint of the proposals is very small.
- Spread of an invasive species, rhododendron.

#### **G.1.2 SPECIES**

- Loss of or damage to red squirrel dreys and/or badger setts, should any form within 30m of the proposed development footprint prior to works commencing.
- Harm to mammals during the construction period if any trenches/holes are left open overnight.
- Harm to nesting birds should dense vegetation/tree removal be undertaken in the nesting bird period (March to August inclusive).
- Increased lighting around the site impacting on mammal and bird foraging habitat, and particularly the potential bat roosts within the Scots pine.
- Very low risk of harm to reptiles, should they be present in the woodland.

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

None anticipated given the small scale of the proposals.

### **G.3 POTENTIAL CUMULATIVE IMPACTS AND/OR EFFECTS**

None anticipated.

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<sup>17</sup> 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.

## H. RECOMMENDATIONS

The mitigation strategy aims to minimise effects on biodiversity by:

- avoiding significant negative impacts where possible through good design; and
- developing approaches to mitigate any remaining unavoidable impacts.

Where any significant residual impacts on biodiversity are anticipated, compensation may then be proposed. This approach is in-line with CIEEM recommendations<sup>18</sup>.

### H.1 FURTHER SURVEY

No further survey is considered necessary prior to planning application determination.

### H.2 AVOIDANCE AND MITIGATION STRATEGY

#### SITE DESIGN

- Tree loss should be kept to a minimum.
- 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.
- External light levels should be kept low level (less than 2m) and low lumen (less than 2 lux) and no security lighting will be installed.

#### 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.
- Within 2 months prior to works commencing, a checking survey should be undertaken to ensure no badger setts or red squirrel dreys have formed within or adjacent to the proposed works.

#### 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.
- Works will be undertaken to a precautionary reptile method statement.
- Should any rhododendron require removal for the drainage route, works will be undertaken to a suitable method statement to prevent its spread.

### H.3 COMPENSATION STRATEGY

With the implementation of the above mitigation strategy, it is not anticipated that there will be any significant adverse residual ecological effects from the proposed development. As such, a compensation strategy is not required.

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<sup>18</sup> Chartered Institute for Ecology and Environmental Management (2016) Guidelines for Ecological Impact Assessment in the UK and Ireland - Terrestrial, Freshwater and Coastal

#### **H.4 MONITORING**

Given the nature of the proposed mitigation and/or compensation strategies, no monitoring is proposed.

#### **H.5 ADDITIONAL ENHANCEMENT RECOMMENDATIONS**

The following measures are recommended in order to further enhance the site for biodiversity, contributing to local and/or national conservation targets.

- Four bat and four bird boxes with a design life of over 10 years will be erected on trees on the woodland edge to provide further habitat enhancement.

### **I. CONCLUSIONS**

With the recommended mitigation and/or compensation detailed above, proposals can proceed with no significant adverse effect on notable species and/or habitats. Proposals provide an opportunity for ecological benefit through bat and bird boxes, and longer term management of the plantation woodland to maturity to retain amenity habitat around the hut contributing to local and national conservation targets. It is also recommended that management of the woodland includes rhododendron control.

## 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 2017 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.