
From: Michael Clements
Sent: 26 November 2020 16:12
To: Ailsa Teasdale
Cc: Niall Roberts
Subject: RE: NYM/2020/0702/FL

Ailsa

Further to my below email and the recent correspondence in relation to application ref. NYM/2020/0702/FL, please find attached the updated Ecological Appraisal for your records. The Ecology Officer at the Park has had site of this already.

As per my previous email, we have reviewed the comments relating to the application and are thinking about how we can respond in a positive manner – we will be in touch soon. Thanks.

Kind Regards

Michael Clements
Planner

Please note, we are working remotely following Government guidance. If you need to speak to me directly please dial my mobile phone number 07930 408800, or correspond via email. Please can I ask that you avoid sending correspondence in the post and instead scan and email directly to me. Thank you.

View our entry in *The Parliamentary Review* by clicking [here](#)

NTR Planning Ltd

Clareville House, 26-27 Oxendon Street, London SW1Y 4EL

www.ntrplanning.co.uk

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NYMNP/PA

26/11/2020

SF3014 RATHWAITE ESTATE – WOODLAND ROOMS

ECOLOGICAL APPRAISAL- REVISION B

November 2020 | For Planning

CONFIDENTIAL – NOT TO BE MADE AVAILABLE IN THE PUBLIC DOMAIN

SMEEDEN FOREMAN
Landscape Architecture • Ecology • Arboriculture

Quality Assurance

Job Title: Raithwaite Estate – Woodland Rooms			Job Number: SF3014	
Document title: Ecological Appraisal				
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Name:	Initials:	Status:	Licence numbers:
Katie Lawrence <i>Associate Ecologist</i>	KL	BSc (Hons) MCIEEM	Bats: 2015-7301 (Class 1) GCN: 2015-17393 (Class 1)
Maria Gill <i>Senior Ecologist</i>	MG	BSc (Hons) ACIEEM	Bats: 2018-34259 (Class 1) GCN: 2016-19925 (Class 2) Barn owl: CL29/00187
Catherine White <i>Associate Ecologist</i>	CW	BSc (Hons) MA (LD) CMLI MCIEEM	Bats: 2016-24337 (Class 2) GCN: 2015-19280 (Class 1)
Jarred Johnson <i>Assistant Ecologist</i>	JJ	BSc (Hons) MSc	

SMEEDEN FOREMAN

Landscape Architecture • Ecology • Arboriculture

Somerset House, Low Moor Lane, Scotton, Knaresborough, North Yorkshire, HG5 9JB

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EXECUTIVE SUMMARY

Smeeden Foreman Limited has been commissioned by Raithwaite Trading Company to undertake an ecological appraisal of their site within the Raithwaite Estate (grid reference NZ 86691158). The proposals include the construction of twelve woodland rooms for holiday use, which will be directly serviced by Raithwaite Hotel.

A desk study of relevant information has been undertaken including designated nature conservation sites and existing records of protected species; and initial site survey (extended phase 1 habitat survey) with additional surveys undertaken including breeding bird surveys, reptile surveys and bat transect surveys.

The site comprises mature broadleaf woodland habitat considered to be of local to county value. Where the woodland rooms are proposed within woodland habitat, the canopy largely comprises pine trees and the ground layer is relatively sparse in comparison to the surrounding woodland habitat, where broadleaf trees dominate the canopy. Grassland habitat is present within the site including an area of pasture to the south and a clearing within an area of introduced shrubs, both of which comprise semi-improved neutral grassland habitat; other habitats include dense introduced shrubs and a beech hedge.

Designated sites

No statutory designated nature conservation sites lie within a 2km radius of the proposals site. The site is located within the outer limits of the Impact Risk Zone of the North York Moors Special Area of Conservation (SAC) and North York Moors Site of Special Scientific Interest (SSSI). The relevant Natural England (NE) Geographic Information System (GIS) dataset indicates that the nature and scale of the proposed works are unlikely to impact upon this site.

Five non-statutorily designated sites are located within 2km of the site. No adverse impact is anticipated upon four of the sites. Raithwaite Gill/Dunsley Beck SINC is located within close proximity to the north of the site. No direct impact upon the SINC is anticipated as a result of the proposals and measures to protect the SINC will be adopted in relation to the development of the Raithwaite Estate which has received full planning permission from Scarborough Borough Council (planning ref: 18/00241/FL). Such measures are considered to reduce any cumulative indirect impact upon the SINC as a result of any increased visitor pressure from the proposed woodland homes.

Ancient replanted woodland habitat occurs approximately 20m to the south of the southern site boundary. Measures are recommended for adoption within the development site to ensure the protection of the ancient woodland area.

Habitats

To mitigate any impact upon the woodland habitat within the site it is recommended that a woodland management and monitoring plan is produced which would include sympathetic management recommendations. Monitoring surveys would then be undertaken once the site becomes operational and management of the woodland has commenced to assess the effects of the management and allow for adjustment of management recommendations, if necessary.

Other habitats on site such as introduced shrub, the beech hedgerow and semi-improved neutral grassland are considered to be of lower value, though are still likely to be utilised by a range of wildlife such as foraging and commuting bats, nesting birds and invertebrates. It is

recommended that these habitats are retained, where possible, in order to provide habitats for a range of species. Where losses have occurred, these could be mitigated through habitat creation and appropriate management, such as hedgerow planting, wildflower grassland over-seeding, translocation of grassland turfs from affected areas to unaffected areas and appropriate management of grassland habitat.

In order to protect habitats of ecological value present and ensure that the proposed development provides enhancement to wildlife, recommendations for a protective fencing, sympathetic lighting and the provision of nest boxes, bat boxes and a reptile hibernacula have been made.

Species

The potential for the following protected and notable species to be affected by the development has been assessed with potential mitigation and further survey work as follows:

- **Great crested newt** – No impact upon this species is anticipated as a result of the proposed development.
- **Otter** – No sign of this species was identified along the Dunsley Beck adjacent to the west of the site but due to the suitability of the habitat for commuting purposes, precautionary working methods have been recommended.
- **Bats** – Transect surveys were undertaken to assess the use of the site by foraging and commuting bats. Surveys recorded moderate to high levels of bat activity, with the most regularly recorded species being common pipistrelle, with fewer recordings of additional species such as soprano pipistrelle, noctule, brown long-eared bat, Leisler's and *Myotis* bat species thought to be Daubenton's and Natterer's. A potential Serotine bat call was also noted and verification of the sonogram from North Yorkshire Bat Group (NYBG) confirmed this to be a Leisler's. Recommendations to avoid adverse impacts upon bat activity on site include a sympathetic lighting scheme, appropriate management of the woodland habitat and habitat creation, such as hedgerow planting and wildflower seeding. Two trees within the woodland proposed for removal were identified as having potential to support roosting bats. These trees were subject to further survey and roosting bats were noted to be absent. A checking survey of these trees is recommended to re-assess the presence/absence of roosting bats prior to these trees being removed in case they become occupied in the interim period. Appropriate mitigation through an EPSM licence would be adopted if bat roosts were identified. Soft felling methods are recommended for a single tree identified as having a low potential to support bats which is proposed for removal. Further recommendations for bats on site include the provision of a range of bat boxes to enhance roosting opportunities.
- **Reptiles** – Reptile surveys undertaken on site identified slow worm using the grassland habitats. Mitigation recommendations include the trapping and translocation of slow worm from the grassland habitats and hand searching of woodland areas prior to construction, the adoption of precautionary working methods in relation to any vegetation clearance works and habitat creation, such as wildflower grassland seeding, hedgerow planting and the provision of a reptile hibernacula.
- **Breeding birds** – a breeding bird survey was undertaken in May and June 2020. 32 bird species were recorded during the surveys, with nine species recorded being of high to medium conservation concern. No schedule 1 protected species were recorded. Recommendations for breeding birds to be adopted within the proposals include the sympathetic management of the woodland habitat, creation of new suitable habitat

and the installation of a range of suitable nest boxes. Precautionary working methods recommended include for any vegetation clearance to be undertaken outside of the nesting bird period (March – August inclusive) unless checks by an appropriately qualified ecologist finds no active nests immediately prior to clearance works commencing.

- **Badger** – No signs of badger were identified within or in proximity (30m) to the proposals site. As badgers are known to occur within the surrounding area it is recommended that an updated survey is undertaken prior to works commencing; this will identify any badger setts which may have become established within the interim period and the requirement for a mitigation scheme for badgers. Precautionary working methods will be adopted during construction to avoid adverse impact upon this species.
- **Hedgehog** – Precautionary working methods will be adopted to avoid adverse impact upon this species and gaps will be provided in any new fencing/walls to allow this species continued access within the site.

1.0 INTRODUCTION

- 1.1.1 Smeeden Foreman Limited has been commissioned by Raithwaite Trading Company Limited to undertake an ecological appraisal of their site within the Raithwaite Estate in Sandsend, North Yorkshire (central grid reference NZ 86691158), hereafter referred to as the 'site'.
- 1.1.2 This report will include the following information gathered by an ecological walkover survey, reptile survey, breeding bird survey, bat transect survey and desk study:
- Proximity to statutory and non-statutory designated sites;
 - Proximity to existing records of protected species; and,
 - Site habitat appraisal and potential to support protected species.
- 1.1.3 A review of the above information will be made to identify any features or sites of ecological interest which may be affected by the development proposals. Where potential impacts or protected species are identified the need for mitigation measures and requirements for further surveys will be discussed.
- 1.1.4 The report has been commissioned to inform a planning application for the construction of twelve woodland rooms for holiday use, which will be directly serviced by Raithwaite Hotel.
- 1.1.5 The methodologies used to survey and assess the ecological value and potential impacts on the site are based upon guidelines produced by the Chartered Institute of Ecology and Environmental Management (CIEEM) (Guidelines for Preliminary Ecological Appraisal, 2017).

2.0 SITE DESCRIPTION

- 2.1.1 The proposals site is located to the south of the Raithwaite Estate, within proximity to the hotel and lake. Habitats comprise broadleaf woodland, areas of dense introduced shrubs and grassland. The Dunsley Beck is located adjacent to the western boundary and an area of ancient replanted woodland is located approximately 20m to the south. Habitats within the wider area largely comprises pasture grassland habitat, with further areas of woodland habitat. Refer to *Figure 01* below.



Figure 01: Aerial view of site location

3.0 PRINCIPLE LEGISLATION AND POLICIES

3.1.1 The national nature conservation legislation and policies that may be relevant to the proposed development are listed below. A brief explanation of the principle legislation and policies relating to nature conservation, biodiversity and ecology is provided in *Appendix 01*.

Principle Legislation and Policies

- Wildlife and Countryside Act 1981 (*as amended*)
- EC Habitats Directive (92/43/EEC)
- EC Birds Directive (79/409/EEC)
- Conservation of Habitats and Species Regulations 2017
- Countryside and Rights of Way Act 2000
- Protection of Badgers Act 1992
- United Kingdom Biodiversity Action Plan (UKBAP)
- Natural Environment and Rural Communities Act (NERC), 2006 – Biodiversity Duty
- Hedgerow Regulations 1997
- National Planning Policy Framework (NPPF)

4.0 BASELINE INFORMATION

4.1 METHODOLOGY

4.1.1 The ecological interest of the site and its surroundings has been investigated by a combination of the following:

- Field survey of the site and immediate surroundings including a phase 1 habitat survey and a National Vegetation Classification (NVC) survey of woodland habitat;
- Species specific surveys for: breeding birds, reptiles and commuting and foraging bats;
- Consultation with relevant bodies to obtain existing protected species records and non-statutory designated sites information within local area within 2km: North & East Yorkshire Ecological Data Centre (NEYEDC) and North Yorkshire Bat Group (NYBG);
- The UK Biodiversity Action Plan (UKBAP);
- The Scarborough Biodiversity Action plan (LBAP);
- Magic map, a government website for nature conservation information; and,
- Aerial photographs.

4.2 NATURE CONSERVATION DESIGNATED SITES

Statutory Designations

- 4.2.1 There are no statutorily designated nature conservation sites within 2km of the proposals site boundary.
- 4.2.2 The proposals site lies within the outer limits of the Impact Risk Zone of the North York Moors Special Area of Conservation (SAC) and North York Moors Site of Special Scientific Interest (SSSI), located approximately 5.8km to the south. The relevant Natural England (NE) Geographic Information System (GIS) dataset indicates that the nature and scale of the proposed works are unlikely to impact upon this site.

Non-statutory Designations

- 4.2.3 NEYEDC provided information on five non-statutorily designated sites within 2km of the proposals site. These sites are detailed in Table 01 below with additional descriptions of their corresponding designations.

Table 01: Non-statutorily designated sites within 2km

Site Name	Designation	Grid reference	Location from site	Notes
Raithwaite Gill/Dunsley Beck	SINC ¹	NZ 868120	Approx. 0.1km to the north	Woodland habitat, with scrub and grassland
Uppgang beck to Sandsend Cliff	SINC	NZ 868121	Approx. 0.5km to the north	Coastal habitat including grassland and scrub
Uppgang Beck	SINC	NZ 880116	Approx. 1.3km to the east	Watercourse adjoining the coast, with associated habitats including grassland and scrub
Sandsend, Hardcliff	SINC	NZ 859130	Approx. 1.5km to the north-west	Coastal habitat including scrub and woodland
East Row Beck and Woodlands, Sandsend	SINC	NZ 861124	Approx. 0.7km to the north-west.	Ancient woodland habitat

¹Sites of Importance for Nature Conservation (SINCs) form part of a wider national network of non-statutory locally valued wildlife sites. SINCs were initially identified through the Phase 1 Habitat Survey of the District undertaken in the 1990s. Most of these sites have been resurveyed in greater detail by the North Yorkshire SINC Panel.

- 4.2.4 Refer to *Appendix 02* which shows the locations of the designated sites in relation to the application site.

4.3 EXISTING SPECIES RECORDS

- 4.3.1 Existing biological records were provided following consultation with NEYEDC and NYBG. The records detailed in the following tables are those in closest proximity to the proposed development site within the 2km search area. The raw data provided by the records centre was extensive and is therefore not appended to the report but a copy

can be provided on request. NEYEDC and NYBG provided a number of duplicate records for bat species recorded within 2km of the site. Any additional records NYBG provided are detailed in Table 03.

Table 02: Protected species records within 2km

Species	Grid reference	Notes
Great crested newt	NZ 879118	One record. 2007. Approx. 1.1km to the north-east.
Barn owl	NZ 871120	One record. 2016. Approx. 0.5km to the north-east.
White-beaked dolphin	NZ 8613	One record. 1990. 1km grid square to the north of the site.
Slow worm	NZ 8703512003	One record. 2016. Approx. 0.4km to the north. 5 count.
Common lizard	NZ 8513	Two records. 2005. 1km grid square to the north-west.
Water vole	NZ 861128	Two records. 1999. Approx. 1.3km to the north-west.
Serotine	NZ 871120	One record. 2016. Approx. 0.5km to the north-east.
Otter	NZ 81V	One record. 2001. 2km Tetrad. River Esk, Whitby.
Unknown bat species	NZ 871120	Five records. 2016. Approx. 0.5km to the north-east.
Daubenton's bat	NZ 871120	Three records. 2016. Approx. 0.5km to the north-east.
Noctule	NZ 8668111434	Eight records. 2016. Approx. 0.1km to the south.
Common pipistrelle	NZ 8668111434	Eleven records. 2016. Approx. 0.1km to the south.
Brown long-eared bat	NZ 871120	Three records. 2016. Approx. 0.5km to the north-east.

Table 03: Bat species records within 2km

Species	Grid reference	Notes
Pipistrelle species	NZ 858127	Two records. 2002. Approx. 1.4km to the north-west. Roost.
<i>Myotis</i> bat species.	NZ 8668111434	Seven records. 2016. Approx. 0.1km to the south.
Unknown bat species	NZ 863124	Two records. 2008. Approx. 0.8km to the north-west. In flight.

- 4.3.2 No European Protected Species Mitigation Licences were identified within the 2km search area. The locations of the nearest EPSM licences are approximately 5.5km to the south-west of the proposals site (reference *EPSM2011 – 3230* for common pipistrelle and brown long-eared bat, 2011-13).
- 4.3.3 Badger have also been recorded within 2km of the proposals site.
- 4.3.4 Non-native invasive species included on Schedule 9 of the Wildlife and Countryside Act 1981 which have been recorded within 2km of the proposals site include Japanese knotweed *Fallopia japonica*, Himalayan balsam *Impatiens glandulifera*, *Rhododendron ponticum* and Japanese rose *Rosa rugosa*.
- 4.3.5 Records of priority UK Biodiversity Action Plan species within 2km of the study area were provided for the following species:
- Amphibians:* common toad.
- Birds:* yellow hammer, herring gull, linnet, house sparrow, grey partridge, dunnock and song thrush.
- Insects:* cinnabar.
- Fish:* European eel, brown/sea trout
- Mammals:* hedgehog.

4.4 BIODIVERSITY ACTION PLANS

National Biodiversity Action Plan

- 4.4.1 The UK Biodiversity Action Plan (UK BAP) identifies priority species and habitats which are those considered to be the most threatened and therefore most in need of conservation action. The lists were updated in 2007 to include 1150 species and 65 habitats. The UK Post-2010 Biodiversity Framework (July 2012) has succeeded the UKBAP, however priority species and habitats listed under the UKBAP remain a valuable reference source and have been used to inform statutory lists at a national level including Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (England).
- 4.4.2 Priority habitats known to occur within 2km of the site include deciduous woodland, maritime cliff and slopes and wood pasture and parkland.

Local Biodiversity Action Plan

- 4.4.3 Habitat types for which action plans have been prepared for North York Moors Biodiversity Action Plan include:
- Coast
 - Farmland
 - Species-rich grassland
 - Moorland
 - Rivers and Streams
 - Species-rich road verges
 - Trees and woodland
- 4.4.4 The proposals site is predominantly located within an area of mature deciduous woodland, with the Dunsley Beck within close proximity to the west.

4.4.5 Species for which action plans have been prepared for the North York Moors Biodiversity Action Plan include:

- Bats
- Freshwater pearl mussels
- Juniper
- Rare butterflies
- Water voles
- White clawed crayfish
- Wild daffodils

4.4.6 The woodland habitat on site is considered suitable habitat to support foraging and commuting bats, with a number of mature trees within the woodland site having potential to support roosting bats.

4.5 SITE SURVEY – PHASE 1 HABITAT SURVEY

Methodology

4.5.1 A walk over survey was undertaken on 2nd April and the 28th May 2020. Habitat types and key species were noted and are presented in the Phase 1 Habitat format proposed by the Joint Nature Conservation Committee (2010), refer to Figure 02 for corresponding target notes.

4.5.2 The proposals site predominantly comprises mature broadleaf woodland habitat, with lodges also proposed within a clearing surrounded by established introduced shrubs and an area of pasture grassland.

Results

Broadleaf woodland

4.5.3 The majority of the lodges are proposed within woodland habitat located to the south of the Raithwaite Estate within proximity to the Dunsley Beck. An existing track which adjoins onto the access road within the estate is located within the wood and will be improved to provide access to the proposed lodges. The woodland surrounding the proposed lodges and track generally comprises a canopy dominated by sycamore *Acer pseudoplatanus*, with other species including ash *Fraxinus excelsior*, pine species *Pinus sp.*, larch *Larix sp.*, and alder *Alnus glutinosa*, the latter of which is largely associated with small flushes and along the Dunsley Beck. The understorey within the woodland is fairly sparse with species recorded including rhododendron *Rhododendron sp.*, holly *Ilex aquifolium*, gooseberry *Ribes uva-crispa* hazel *Corylus avellana* and elder *Sambucus nigra*. The ground flora is largely dominated by dog's-mercury *Mercurialis perennis*, with other species including lesser celandine *Ranunculus ficaria*, wild garlic *Allium ursinum*, planted daffodil *Narcissus sp.*, red campion *Silene dioica*, primrose *Primula vulgaris*, cleavers *Galium aparine*, common nettle *Urtica dioica*, male fern *Dryopteris felix-mas*, bramble *Rubus fruticosus*, wood sorrel *Oxalis acetosella*, wood avens *Geum urbanum*, herb robert *Geranium robertianum*, opposite-leaved golden saxifrage *Chrysoselphenium oppositifolium* (in small flushes) lords and ladies *Arum maculatum*, bluebell *Hyacinthoides non-scripta*, wood speedwell *Veronica montana*, dog violet *Viola riviniana*, enchanter's nightshade *Circaea lutetiana*, bracken *Pteridium aquilinum*,

broad-buckler fern *Dryopteris dilatata* and hart's-tongue fern *Asplenium scolopendrium*.

- 4.5.4 The woodland habitat in which the proposed lodges and the existing track are located is predominantly considered to be representative of the NVC type W9 *Fraxinus excelsior* – *Sorbus aucuparia* – *Mercurialis perennis* woodland, with the canopy comprising ash and sycamore. Although the W8 community is known for having dog's mercury as the most distinctive ground flora species, which is apparent with the woodland on site, it is still considered that this habitat is more relatable to the W9 community, with species such as primrose, broad buckler-fern and male fern being prominent. The woodland is considered to represent the W9a Typical sub-community, with male fern and broad-buckler fern being frequent.
- 4.5.5 A small area located off the existing track where opposite-leaved golden saxifrage was noted with alder forming the canopy is considered to represent the NVC community W7 *Alnus glutinosa* – *Fraxinus excelsior* – *Lysimachia nemorum* woodland.
- 4.5.6 Where the lodges are proposed within the woodland (**Target note 1**), the canopy largely comprises larch, with small amounts of sycamore and ash and a limited understorey of young sycamore, holly, gooseberry and hazel. Here the ground flora is relatively sparse, possibly due to the dense mat of pine needles and/or constant shade from coniferous trees. Forb species recorded include frequent broad-leaved buckler fern, wood sorrel and cleavers, occasional herb robert and male fern and rarely occurring bluebell and red campion.
- 4.5.7 An area where dog's mercury becomes dominant is located to the north of the proposed woodland lodges (**Target note 2**) and would be affected by proposed pathways connecting the lodges to the existing track. Associated species include frequent male fern, occasional red campion, broad-leaved buckler fern and wood sorrel and rare wild garlic, bluebell and wood speedwell.
- Semi-improved neutral grassland
- 4.5.8 Lodges are also proposed within areas of grassland habitat to the east. These include a clearing within an area of dense introduced shrub habitat and an area of pasture grassland. The grassland habitats are detailed below:
- 4.5.9 **Target note 3** – a clearing surrounded by dense introduced shrub to the north and south and woodland to the west. The clearing comprises a herb-rich grassland habitat, with a number of species present being indicative of the adjacent woodland and forb species appearing more dominant than grasses. Species recorded include abundant field forget-me-not *Myosotis arvensis* and primrose, frequent pignut *Conopodium majus*, dog's mercury, lesser celandine, male fern, hogweed *Heracleum sphondylium*, common sorrel *Rumex acetosa* and red campion, occasional marsh thistle *Cirsium palustre*, common nettle *Urtica dioica*, rosebay willowherb *Chamerion angustifolium*, barren strawberry *Potentilla sterilis*, common knapweed *Centaurea nigra*, meadow vetchling *Lathyrus pratensis*, planted daffodil, lords and ladies, rough meadow-grass *Poa trivialis*, false oat-grass *Arrhenatherum elatius* and rarely occurring meadow foxtail *Alopecurus pratensis* and herb robert *Geranium robertianum*.
- 4.5.10 **Target note 4** – pasture grassland occurring to the south-east of the site, either managed through occasional grazing or mowing. Grass species are dominant within the sward, however a number of species recorded are indicative of unimproved grassland habitat, with a number of species also indicative of the adjacent woodland habitat. Grass species recorded include abundant Yorkshire fog *Holcus lanatus*, frequent cock's-foot *Dactylis glomerata*, occasional rough meadow-grass, false oat-grass, sweet

vernal-grass *Anthoxanthum odoratum*, meadow foxtail and red fescue *Festuca rubra*. Forb species recorded include abundant crosswort *Cruciata laevipes* and pignut, frequent hogweed, occasional bush vetch *Vicia sepium*, meadow vetchling, creeping thistle, germander speedwell *V. chamaedrys*, common sorrel and common mouse-ear *Cerastium fontanum*, with rarely occurring lesser stitchwort *Stellaria graminea*, dog's mercury, dandelion *Taraxacum agg.*, greater stitchwort *S. holostea*, broadleaved dock *R. obtusifolius*, common nettle, cuckooflower *Cardamine pratensis*, ground ivy *Glechoma hederacea* and field forget-me-not. Bracken was recorded as locally abundant.

Introduced shrub

- 4.5.11 Areas of dense introduced shrubs (**Target note 5**) occur in association with the clearing as described above and along an existing pathway which occurs to the east of the clearing which will provide access to lodges proposed here and within the pasture grassland. Species recorded largely include rhododendron species and cherry laurel *Prunus laurocerasus*, with associated trees and shrubs including holly, elder, a *Ribes sp.* and an ornamental maple *Acer sp.*, with ground flora species being mainly located to the edges of the shrubs, due to their density; species include dog's mercury, common nettle, angelica *Angelica sylvestris*, spear thistle *C. vulgare*, pendulous sedge *Carex pendula*, dog violet, cleavers, creeping buttercup *R. repens*, field forget-me-not and red campion.

Hedgerow

- 4.5.12 Bordering the northern boundary of the pasture grassland habitat is a hedgerow (**Target note 6**). The hedge comprises beech *Fagus sylvatica*.

Scattered trees

- 4.5.13 Within the area of pasture grassland and dense introduced shrubs are a number of scattered trees including beech *Fagus sylvatica*, a mature hawthorn *Crataegus monogyna* and a pine *Pinus sp.*

Fauna

- 4.5.14 During the survey the following species were recorded: butterflies including orange-tip *Anthocharis cardamines* and small copper *Lycaena phlaeas* were recorded within the pasture grassland habitat and roe deer were observed within the woodland.

4.5.15 Photographs



Image 01: Target note 1 – Broadleaf woodland where lodges proposed (April survey)



Image 02: Target note 1 - Broadleaf woodland where lodges proposed (May survey)



Image 03: Existing track through woodland to provide access to lodges



Image 04: Target note 3 – Clearing (April survey)



Image 05: Target note 3 – Clearing (May survey)



Image 06: Target note 4 – Pasture grassland (April survey)



Image 07: Target note 5 – introduced shrubs either side of existing track



Image 08: Target note 6 – Beech hedge

Conclusion

- 4.5.16 Broadleaf woodland habitat on site is considered to be of local - county value. The woodland is not included within the Raithwaite Gill/Dunsley Beck SINC or as ancient woodland, but the ground flora recorded is indicative of mature woodland habitat, with species such as dog's mercury, bluebell, primrose and wild garlic recorded. Woodland habitat is also included within the North York Moors BAP. Other habitats on site such as introduced shrub, the beech hedgerow and semi-improved neutral grassland are considered to be of lower value, though are still likely to be utilised by a range of wildlife such as foraging and commuting bats, nesting birds and invertebrates.

4.6 SITE SURVEY – HABITAT SUITABILITY INDEX SURVEY

Methodology – Habitat Suitability Index

- 4.6.1 From consulting an OS map of the local area there is one waterbody located within 500m of the site, see *Figure 03* below for pond location and Table 04 for brief pond descriptions.

Figure 03: Waterbody locations on site and within 500m (highlighted in blue)



Table 04: Watercourse/body descriptions on site and within 500m

Lake to the south of the Raithwaite Estate approx. 45m from southern boundary, with a small amount of floating and emergent vegetation to the pond edges. Used by a small number of wildfowl and considered likely to support fish being connected to the Newholm Beck.



Image 09: Lake to south of proposals site

- 4.6.2 The lake was assessed using the Habitat Suitability Index (HSI) survey methodology to consider its suitability for great crested newts and the requirement for further assessment and appropriate mitigation in regards to the proposed development.
- 4.6.3 The HSI survey is a method produced by Oldham *et al.* (2000) to assess the suitability of ponds for great crested newts by quantifying ten factors (suitability indices) which can affect great crested newt occurrence, such as the presence of fish and wildfowl, shading, coverage of aquatic vegetation, etc. and provides a score which can indicate the suitability of a pond to support breeding great crested newts. The HSI is calculated as a geometric mean of the ten suitability indices using the formula below:
- 4.6.4 $HSI = (SI_1 \times SI_2 \times SI_3 \times SI_4 \times SI_5 \times SI_6 \times SI_7 \times SI_8 \times SI_9 \times SI_{10})^{1/10}$
- 4.6.5 The score can range from 0 to 1, 0 indicating low suitability and 1 indicating a high suitability. The HSI has been adapted by the National Amphibian and Reptile Recording Scheme (NARRS) who have categorised the suitability of a pond to support great crested newts by the HSI obtained, which is as follows:

Table 05: HSI scoring system

HSI Score	Pond Suitability
<0.5	Poor
0.5-0.59	Below average
0.6-0.69	Average
0.7-0.79	Good
>0.8	Excellent

Results

- 4.6.6 The lake within 500m of the proposals site was assessed using the Habitat Suitability Index (HSI) survey methodology as described above.
- 4.6.7 The results of the HSI survey are detailed in the table below:

Table 06: Habitat Suitability Index Survey

	Pond 1	
Sl ₁ Location	A	1
Sl ₂ Pond area	4530m ²	Omit
Sl ₃ Pond drying	Never dries	0.9
Sl ₄ Water quality	Moderate	0.67
Sl ₅ Perimeter Shade	30%	1
Sl ₆ Fowl	Minor	0.67
Sl ₇ Fish	Minor [#]	0.33
Sl ₈ Ponds within 1km	3	0.65
Sl ₉ Terrestrial habitat (within 250m)	Moderate	0.67
Sl ₁₀ Macrophytes*	10%	0.4
HSI Score	0.69 = Average	

[#] Estimate

Conclusions

- 4.6.8 The lake within proximity to the proposals site obtained a HSI score of 0.69 indicating that it is of average suitability for great crested newts.

4.7 SITE SURVEY – TREE ASSESSMENT FOR BAT ROOST POTENTIAL

Methodology

- 4.7.1 Trees on site were surveyed during the walkover survey in order to identify if they had features present with the potential to support roosting bats. All aspects of the trees were surveyed using close focusing binoculars and high powered torch light. The surveyor looked for features which are commonly used by bats for roosting or shelter, such as natural holes, woodpecker holes, cracks and splits, cavities, epicormic growth and bat boxes; and, for signs of bats utilising a tree for roosting purposes such as scratches on the bark at entry points, staining, droppings, audible noise, distinctive smells and the smoothing of surfaces near to cavities. The trees potential to support roosting bats was categorised to relate to the value of identified features. These categories are provided by the Bat Conservation Trust (BCT) *Bat Surveys for Professional Ecologists: Good Practice Guidelines 3rd edition* (2016) and are summarised in the Table 07 below.

Table 07: Summary of BCT structure (tree/building) categories

<i>BCT Category</i>	<i>Description</i>
High	One or more highly suitable features capable of supporting larger roosts on a regular basis and for long periods of time.

Moderate	One or more suitable features but unlikely to support a roost of high conservation status.
Low	One or more suitable features suitable for low numbers of bats e.g. individual bats opportunistically.
Negligible	Negligible features likely to be used by roosting bats.

4.7.2 Following the ground inspection, an inspection of trees noted as having bat roost potential was undertaken on the 30th August 2020 to further assess the presence/absence of roosting bats. An endoscope was used to identify any actual evidence of bats in the form of droppings, fur/urine staining, scratch marks, feeding remains, distinctive smell and dead bats.

Results

4.7.3 During the walkover survey a total of three trees were considered to have bat potential which are to be affected by the proposals, refer to *Figure 02* for approximate locations. Refer to Table 08 below for details of potential roost features (PRFs) identified. Refer to the arboriculture document compiled by Smeeden Foreman (*SF3014 Arboricultural Survey Report*) for further arboriculture details on the trees concerned.

Table 08: Trees identified with bat roost potential

Tree Ref.	Species	Comments	Bat Potential
T24	Ash	Die-back in crown, major dead wood in crown. Overhanging existing track	Low
T26	Sycamore	Decay present on stem. Cavity on stem, though low down.	Moderate
T28	Beech	Decay present on stem. Cavity on stem.	Moderate



Image 09: T26 – Cavity on main stem

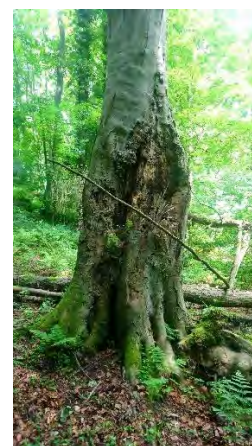


Image 10: T28 – Cavity on main stem

- 4.7.4 An inspection of the trees identified as having moderate potential for supporting roosting bats was made on the 30th August 2020, with an endoscope used to inspect the suitable roosting features noted on these trees. This was able to undertaken from the ground with the cavities identified being located relatively low down on the main stems. No signs of roosting bats were identified during the inspection.

4.8 SITE SURVEY – BAT TRANSECT ACTIVITY SURVEYS

Methodology- Transect surveys

- 4.8.1 To establish the use of the development site by foraging and commuting bats, transect activity surveys were undertaken within the proposals site during the appropriate period (April – October) to give an indication of how habitat features within the site are used.
- 4.8.2 A total of seven survey visits were undertaken at dusk and dawn from May – October (two visits undertaken in May); covering a two hour period after sunset/before sunrise following guidance outlined within the Bat Conservation Trust's 'Bat Surveys: Good Practice Guidelines 2016'.
- 4.8.3 Two surveyors walked a pre-determined transect route (see figure 04); using Batbox Duet detectors set on heterodyne mode. In addition, Anabat Express remote static detectors were deployed in various locations of the site for a minimum of five nights per month where possible. Anabat Express automated detectors use internal recording technology to record bat echolocation calls for subsequent analysis of sonograms.
- 4.8.4 Transect surveys were carried out under the supervision of licenced bat workers Maria Gill (bat licence ref. 2018-34259-CLS-CLS), Catherine White (bat licence ref. 2016-24337-CLS-CLS) and Jessica Eyre (2015-13434-CLS-CLS)
- 4.8.5 The route taken and locations of remote static detectors are described below and shown in Figure 04. The locations of bat activity identified during the surveys are shown in Figure 05.



Figure 04: Transect route and locations of remote detectors

4.8.6 The tables below include information on the timing and conditions of transects undertaken and remote static detector surveys.

Table 10: Bat transect survey specifics

Date	Start time	Finish time	Sunset/Sunrise	Temp.	Cloud cover	Wind speed	Rain	Humidity
02.05.20	20:39	22:39	20:39	11°C	10-90%	7-5mph	0	74-84%
26.05.20	21:20	23:20	21:20	15-13°C	20-0%	7mph	0	74-83%
18.06.20	21:42	23:42	21:42	12°C	100%	10mph	0	83%-89%
16.07.20	21:30	23:30	21:30	19-17°C	0%	10-12mph	0	75%
20.08.20	20:22	22:22	20:22	21-18°C	20%	13-22mph	0	59-65%
16.09.20	04:38	06:38	06:38	16-13°C	10-50%	8-9mph	0	87-93%
07.10.20	18:22	20:22	18:22	12-10°C	20-70%	11-24mph	0	71-77%

Table 11: Remote detector survey specifics

Month	Start date	Finish date	Nights of data	Location (<i>refer to Figure 04</i>)
May	02.05.2020	05.05.2020	4	A
May	26.05.2020	29.05.2020	4	B
June	18.06.2020	23.06.2020	6	C
July	16.07.2020	20.07.2020	5	D
August	20.08.2020	24.08.2020	5	E
September	16.09.2020	23.09.2020	8	F
October	14.10.2020	18.10.2020	5	G

Results- Transect surveys

2nd May 2020

- 4.8.7 During the transect survey, the first bat activity on site was a common pipistrelle bat; located foraging along the eastern transect boundary in association with the adjacent woodland and hotel accommodation. This was recorded at 20:51, twelve minutes post-sunset.
- 4.8.8 From this time onwards, low levels of activity were recorded within the site boundary, with >12 bat passes recorded in total by surveyors. Observations of bat activity were made throughout the site, but predominantly associated with the woodland and shrub habitat leading southwest, and the water bodies; Dunsley Beck and the lake which abuts hotel accommodation; located to the western and south eastern boundaries respectively.
- 4.8.9 Bat activity continued until the final recorded instance at 22:15; twenty-four minutes prior to the transect finishing.
- 4.8.10 The species predominantly recorded during the transect survey was common pipistrelle with a peak count of two bats recorded at any one time. A possible noctule was recorded to the western boundary, as were three passes of a Pipistrelle species, and an unknown species, again to the western boundary, at 21:09.
- 4.8.11 A remote detector was deployed within the site boundary, in a field composed of rough grassland upon a mature hawthorn tree, for a period of 4 consecutive nights (02.05.20 to 05.05.20). This area is located to the southeast of the proposals site, and abuts woodland to the north and treeline to the west.
- 4.8.12 Recordings from the remote Anabat Express detector were analysed, confirming the species listed above to be utilising the site. Additional species recorded during this time included a *Myotis* species (sonograms characteristic of Daubenton’s bat), and a low number of passes by brown long-eared bat.
- 4.8.13 Refer to Table 10 above for remote data specifics and *Figures 04 and 05* for locations of activity and static detectors on site.

26th May 2020

- 4.8.14 The first bat recorded on site was a common pipistrelle bat; located commuting west from the lake at the southern transect boundary. This was recorded at 21:21, one minute after sunset.

- 4.8.15 From this time onwards, high levels of activity were recorded consistently throughout the site; with 25 observations noted. In accordance with transect recordings from early May, activity was again predominantly associated with the woodland and shrub habitat leading southwest, and the Dunsley Beck and hotel lake; located to the western and south eastern boundaries respectively. Activity was also high along the eastern track in association with hotel buildings and lighting, as well as around an area of woodland clearing and rough grassland field which abuts woodland to the west and north (see figure 05).
- 4.8.16 Bat activity continued until the final recorded instance at 23:19; one minute prior to the transect finishing.
- 4.8.17 Common pipistrelle was most often recorded, with a peak count of three bats recorded at any one time. Single passes from noctule (unseen at height), soprano pipistrelle (unseen), and a *Myotis* species (unseen) were also recorded, with 3-4 brown long-eared bat (along path adjacent to trees, eastern boundary) passes also identified.
- 4.8.18 A remote detector was deployed within the site boundary, within the area of woodland to the southwest of site for a period of 4 consecutive nights (26.05.20 to 29.05.20).
- 4.8.19 Recordings from the remote Anabat Express detector were analysed, showing low levels of activity and confirming the species listed above to be utilising the site. Additional species recorded during this time included *Myotis* species (sonograms characteristic of Daubenton's and Natterer's bat), and an unidentified Pipistrelle species.
- 4.8.20 Two tawny owls were observed around the hotel to the eastern transect boundary, and again at 22:50 associated with the Dunsley Beck to the western boundary.

18th June 2020

- 4.8.21 A common pipistrelle was noted as the first recorded bat activity during the June transect; with two passes recorded along the eastern transect boundary associated with the hotel accommodation. This was recorded fifteen minutes post-sunset at 21:57.
- 4.8.22 Contrastingly with previous months transects, bat activity was relatively low; with activity limited to the western boundaries associated with the woodland canopy and Dunsley Beck. Limited activity was observed along the south eastern boundary adjacent to the hotel lake, where previous transects have reported an increased amount of foraging and commuting individuals.
- 4.8.23 The species predominantly recorded during the transect survey were common pipistrelle with a peak count of one bat, and maximum of four passes, recorded at any one time. A single *Myotis* (unseen) was the only other recorded bat species during the survey, with eleven recorded incidences of bat presence.
- 4.8.24 The final instance of bat activity was recorded at 23:12; thirty minutes prior to the end of the transect survey.
- 4.8.25 A remote detector was deployed within the site boundary, in an area of woodland to the southwest, for a period of 6 consecutive nights (18.06.20 to 23.06.20).
- 4.8.26 Recordings from the remote Anabat Express detector were analysed, confirming the species listed above to be utilising the site. Low to moderate levels of common pipistrelle were recorded (average 202 passes per night); with additional passes from soprano pipistrelle, an unidentified pipistrelle species, noctule, Leisler's, brown long-eared and *Myotis* species consistent with Daubenton's and Natterer's.

16th July 2020

- 4.8.27 Bat activity was noted immediately following the start of the survey transect; with two common pipistrelles recorded foraging from 21:30-21:50 beneath the woodland canopy to the west of site.
- 4.8.28 Activity continued at a moderate level throughout the transect; and in comparison to the June transect, foraging and commuting activity were distributed throughout site; the majority of which was associated with the western woodland and Dunsley Beck, and the hotel lake to the south east travelling north adjacent to hotel accommodation.
- 4.8.29 Sixteen instances of bat activity were recorded; with individuals mainly unseen throughout the survey. Synonymous with previous transects, common pipistrelle was observed the most, with a maximum of two individuals present at one time. Noctule was also recorded (unseen) around the south eastern boundary in proximity to the hotel lake.
- 4.8.30 The final instance of bat activity was recorded at 23:18; a common pipistrelle (unseen), twelve minutes prior to the end of the survey at 23:30.
- 4.8.31 A remote detector was deployed within the site boundary for a period of 5 consecutive nights (16.07.20 to 20.07.20). This was located towards the eastern area of the proposals site along a treeline in close proximity to the hotel accommodation.
- 4.8.32 Recordings from the remote Anabat Express detector were analysed, confirming the species listed above to be utilising the site. Low levels of activity were recorded during this period, with additional species detected consistent with a *Myotis* species (sonogram characteristic with Natterer's), and single passes from soprano pipistrelle and Leisler's.

20th August 2020

- 4.8.33 The first bat recorded on site was a foraging soprano pipistrelle to the northeast boundary, associating with the hotel accommodation and adjacent woodland. A minimum of five passes were made, with activity recorded at 20:25, three minutes after the start of the survey.
- 4.8.34 High levels of activity were then recorded throughout the survey; with a total of 35 observations of bat presence. The western transect boundary, in line with previous transect results, highlighted most activity, with species also favouring areas to the south east associated with the hotel lake; and the two fields adjacent to woodland composed of rough grassland and scrub.
- 4.8.35 A maximum of three individuals were seen at any one time throughout the survey. This was noted to the western site boundary, leading south toward the Lakehouse and in association with the western treeline and rough grassland fields to the east.
- 4.8.36 Common pipistrelle was observed as the most abundant species. In addition, several foraging passes by two individual noctule bats were made between 20:44-20:50 around the hotel lake; and a *Myotis* species was also recorded along the western transect area.
- 4.8.37 A common pipistrelle (unseen) marked the final transect recording; seven minutes prior to the end of the survey at 22:15.
- 4.8.38 A remote detector was deployed within the site boundary for a period of 5 consecutive nights (20.08.20 to 24.08.20). This was situated upon a pine tree leading south into woodland, and positioned facing west toward the Dunsley Beck (see figure 04).

4.8.39 Recordings from the remote Anabat Express detector were analysed, confirming the species listed above to be utilising the site. Additional species recorded consisted of a pipistrelle species, brown long-eared bat, Leisler's and sonograms consistent with those of Daubenton's and Natterer's. A potential Serotine bat call was also noted and verification of the sonogram from North Yorkshire Bat Group (NYBG) confirmed that this was a Leisler's.

4.8.40 A tawny owl pair were heard throughout the survey, in the direction of hotel accommodation and woodland to the northeast.

16th September 2020

4.8.41 Initial bat activity for the transect survey was recorded at 04:49, eleven minutes after commencing the survey; a common pipistrelle (unseen) making multiple passes along the woodland track to the western transect boundary.

4.8.42 Activity for the remainder of the survey was considered low to moderate; with a total of 17 reported instances of bat presence. Overall, activity predominantly occurred along the eastern transect boundary in association with the hotel lake and accommodation lighting; particularly to the northeast. The fields associated with the western treeline also showed increased levels of activity; with at least two common pipistrelles showing continual foraging in this area for the duration of the transect survey.

4.8.43 As with previous surveys, the species predominantly recorded on site was common pipistrelle. Noctule and a *Myotis* species, the former of which unseen, and the latter observed foraging along the western woodland track, were additional species noted throughout the survey.

4.8.44 Two common pipistrelles commuting over the north eastern transect boundary toward associated woodland marked the final transect recording at 06:11; with the transect due to end at 06:38.

4.8.45 A remote detector was deployed within the site boundary, for a period of 7 consecutive nights (16.09.20 to 23.09.20). This detector was located in an area of rough grassland and scrub, facing east and abutting the western woodland.

4.8.46 Recordings from the remote Anabat Express detector were analysed, confirming the species listed above to be utilising the site. Remote recordings also confirmed the presence of a pipistrelle species, soprano pipistrelle, brown long-eared bat, and sonograms consistent with those of Daubenton's and Natterer's.

4.8.47 A tawny owl was seen briefly along the woodland track to the west of site; around 06:30.

7th October 2020

4.8.48 The final transect commenced at 18:22; with initial bat activity recorded thirteen minutes later at 18:35; an unseen common pipistrelle to the western boundary.

4.8.49 The first observed species was recorded five minutes later at 18:40; with a common pipistrelle seen foraging to the south western boundary in association with the lakehouse to the south, woodland to the west, and the grassland fields which abut the woodland. A maximum of two individuals were observed foraging along this area for the majority of the survey.

4.8.50 Activity continued at a low to moderate rate; the majority of individuals passing unseen. In accordance with previous transects, activity again was predominantly

concentrated along the western boundary, as well as within the grassland fields which abut the western treeline and Dunsley Beck.

- 4.8.51 Common pipistrelle was the species predominantly observed, and an unseen common pipistrelle commuting at 20:10 was recorded as the final transect activity; twelve minutes before the end of the survey. A *Myotis* species and noctule were also recorded; nonetheless both were unseen.
- 4.8.52 A remote detector was deployed within the site boundary, for a period of 5 consecutive nights (14.10.20 to 18.10.20). This was located in close proximity to the woodland entrance to the west of site, facing south into the woodland along the gravel track.
- 4.8.53 Recordings from the remote Anabat Express detector were analysed, confirming the species listed above to be utilising the site. Remote recordings also confirmed the presence of a pipistrelle species, and sonograms consistent with those of Daubenton's and Natterer's.



Figure 05: Activity levels observed during transects

Results – Remote detector surveys

- 4.8.54 Remote Anabat Express detectors were deployed in association with linear features on site for 4-7 consecutive nights to detect variations in bat activity. Locations varied across site to highlight activity in different areas. Refer to Table 11 below and *Figure 04* earlier in this section for locations.
- 4.8.55 The table below provides a summary of data sampled over the different recording periods, giving the total number of bat passes per month for each bat species identified along with an average number of passes per night per month.

Table 12: Remote detector survey results

MONTH	Location								
MAY	Hawthorn tree in field in close proximity to western tree line								
	Common pipistrelle	Soprano pipistrelle	Pipistrelle species	Noctule	Leisler's	Brown long-eared	Myotis		
02.05.2020	19	0	0	2	0	0	1		
03.05.2020	5	0	0	3	0	1	1		
04.05.2020	5	0	0	0	0	0	0		
05.05.2020	2	0	0	0	0	0	0		
Total	31	0	0	5	0	1	2		
Average/nt	7.75	0	0	1.25	0	0.25	0.5		
MONTH	Location								
MAY	Edge of woodland to southwest								
	Common pipistrelle	Soprano pipistrelle	Pipistrelle species	Noctule	Leisler's	Brown long-eared	Myotis		
26.05.2020	38	1	6	3	0	0	8		
27.05.2020	23	0	3	1	0	3	5		
28.05.2020	69	1	28	13	0	7	12		
29.05.2020	54	0	13	21	0	1	1		
Total	184	2	50	38	0	11	26		
Average/nt	46	0.5	12.5	9.5	0	2.75	6.5		
MONTH	Location								
JUNE	Woodland to southwest								
	Common pipistrelle	Soprano pipistrelle	Pipistrelle species	Noctule	Leisler's	Brown long-eared	Myotis		
18.06.2020	5	0	0	21	0	0	3		
19.06.2020	603	1	9	4	3	0	30		
20.06.2020	169	0	0	4	5	3	3		
21.06.2020	206	0	1	0	0	0	4		
22.06.2020	133	0	1	6	9	6	5		
23.06.2020	98	0	2	4	6	0	2		
Total	1214	1	13	39	23	9	47		
Average/nt	202.33	0.17	2.17	6.5	3.83	1.5	7.83		
MONTH	Location								
JULY	Treeline to eastern boundary								
	Common pipistrelle	Soprano pipistrelle	Pipistrelle species	Noctule	Leisler's	Brown long-eared	Myotis		
16.07.2020	96	1	0	1	1	0	3		
17.07.2020	66	0	0	2	0	0	9		
18.07.2020	6	0	0	0	0	0	6		
19.07.2020	50	0	0	1	0	0	4		
20.07.2020	10	0	0	0	0	0	5		
Total	228	1	0	4	1	0	27		
Average/nt	45.6	0.2	0	0.8	0.2	0	5.4		
MONTH	Location								
AUGUST	End of gravel track travelling south in woodland								
	Common pipistrelle	Soprano pipistrelle	Pipistrelle species	Noctule	Leisler's	Brown long-eared	Myotis		
20.08.2020	561	1	15	3	0	4	229		
21.08.2020	998	1	28	0	0	17	304		
22.08.2020	374	1	5	0	1	3	28		
23.08.2020	41	0	0	8	0	2	8		
24.08.2020	351	0	0	0	0	2	134		
Total	2325	3	48	11	1	28	703		
Average/nt	465	0.6	9.6	2.2	0.2	5.6	140.6		

MONTH	Location							
SEPTEMBER	Young sycamore tree facing east toward rough grassland area							
	Common pipistrelle	Soprano pipistrelle	Pipistrelle species	Noctule	Leisler's	Brown long-eared	Myotis	
16.09.2020	49	0	1	5	0	1	3	
17.09.2020	10	0	0	3	0	0	6	
18.09.2020	36	0	0	5	0	1	5	
19.09.2020	40	0	0	5	0	0	6	
20.09.2020	14	0	0	2	0	0	4	
21.09.2020	284	0	0	3	0	0	8	
22.09.2020	437	2	0	8	0	1	7	
23.09.2020	119	0	0	10	0	8	1	
Total	989	2	1	41	0	11	40	
Average/nt	123.63	0.25	0.13	5.13	0	1.38	5	
MONTH	Location							
OCTOBER	Pine tree facing south into woodland from gravel track							
	Common pipistrelle	Soprano pipistrelle	Pipistrelle species	Noctule	Leisler's	Brown long-eared	Myotis	
14.10.2020	44	0	2	10	0	0	23	
15.10.2020	30	0	1	0	0	0	118	
16.10.2020	30	0	1	0	0	0	43	
17.10.2020	120	0	25	0	0	0	20	
18.10.2020	64	0	0	0	0	0	11	
Total	288	0	29	10	0	0	215	
Average/nt	57.6	0	5.8	2	0	0	43	

Transect Survey Conclusions

- 4.8.56 Bat activity on site was generally considered to be moderate to high, with the following species identified during transects: common pipistrelle, soprano pipistrelle, brown long-eared, noctule bat and a *Myotis* species (likely Natterer's/Daubenton's bat) with the most frequent species being common pipistrelle.
- 4.8.57 Areas on site with the most concentrated foraging activity were the woodland and associated Dunsley Beck to the west; rough grassland fields which abut the western tree line, and the eastern transect boundary in association with artificial light and hotel accommodation.
- 4.8.58 Moderate to high levels of activity were recorded in association with south eastern areas in close proximity to the hotel lake and lakehouse.

Remote detector conclusions

- 4.8.59 A total of seven bat species have been confirmed on site including common pipistrelle, soprano pipistrelle, noctule bat, Leisler's bat, brown long-eared bat and two *Myotis* bat species. Based on sonogram analysis and the location of bats identified on site, these bats are considered to be Natterer's and Daubenton's bats, with sonograms showing characteristics of these species. *Myotis* are a group of bats known to produce similar call parameters which makes accurate identification difficult, both in the field and through sonogram analysis. Additionally, a potential Serotine bat call was detected during the August transect, and verification of the sonogram from North Yorkshire Bat Group (NYBG) confirmed that this was a Leisler's. Generally results are consistent with transect survey results with similar species recorded.
- 4.8.60 Data results obtained during May indicated moderate use of the site by common pipistrelle, low for an unidentified Pipistrelle species and Noctule bats, and very limited for brown long-eared, soprano pipistrelle and *Myotis* species.

- 4.8.61 Data results obtained during June indicated high use of the site by common pipistrelle, low use by *Myotis* bats, Noctule and Leisler's, and very limited use by an unidentified Pipistrelle species and brown long-eared bat. A single soprano pipistrelle pass was also recorded.
- 4.8.62 Data results obtained during July indicated moderate use of the site by common pipistrelle, low use by *Myotis* bats, and very limited use by Noctule bats. A single pass was recorded for soprano pipistrelle and Leisler's bat respectively. No passes were recorded in July for brown long-eared bat.
- 4.8.63 Data results obtained during August indicated high use of the site by common pipistrelle and *Myotis* bats, moderate use by a Pipistrelle species, and low to very limited use by brown long-eared, Noctule and soprano pipistrelle bats. A single Leisler's bat pass was also recorded. As mentioned above, a potential Serotine bat call was also noted and verification of the sonogram from North Yorkshire Bat Group (NYBG) confirmed that this was a Leisler's.
- 4.8.64 Data results obtained during September identified high use of the site by common pipistrelle, low use by Noctule and *Myotis* bats, and very limited use by brown long-eared bat, soprano pipistrelle, and an unidentified Pipistrelle species.
- 4.8.65 Data results obtained during October indicated only four of the previous seven recorded species were observed to be using the site. Moderate use of the site was consequently identified for common pipistrelle and *Myotis* bats, and low use by a Pipistrelle species and Noctule bats.
- 4.8.66 Use of the site by bats is shown to mirror their ecological patterns; with the largest numbers encountered between August-September. This period consequently ties in with the beginning of the breeding season, when increased foraging activity and social interaction occurs. Common pipistrelle and *Myotis* bats consistent with Natterer's and Daubenton's were generally the most frequently recorded species across site.

4.9 SITE SURVEY – BADGER SURVEY

- 4.9.1 Areas to be affected by the proposals and any suitable habitats within proximity of these areas were surveyed for signs of badger, with this species and their setts known to occur in the surrounding area. This included a search of the boundaries, woodland and scrub habitats for evidence of badgers including:
- Setts, comprising either single isolated holes or a series of holes, likely to be interconnected underground;
 - Latrines: Badgers usually deposit their faeces in excavated pits which can mark their boundaries;
 - Paths between setts or leading to feeding areas;
 - Scratching posts at the base of tree trunks;
 - Snuffle holes (small scrapes where badgers have searched for insects, earthworms and plant tubers);
 - Badger hair;
 - Footprints.
- 4.9.2 Where found, activity levels at setts were scored using the following criteria:

- Number of well used holes (within one of more of the features: well-worn entrance; freshly excavated soil; bedding material);
- Number of partially used holes (leaves or twigs in entrance and/or mosses and other plants growing in or around entrance);
- Number of disused holes (partially or completely blocked, with considerable amount of excavation required for reoccupation).

4.9.3 Setts should also be classified using the definitions shown in the following table:

Table 13: Badger Sett Types

Sett Type	Definition
Main	Several holes with large spoil heaps and obvious paths leading from and between sett entrances.
Annexe	Normally less than 150m from main sett, comprising several holes. May not be in use all the time, even if main sett is very active.
Subsidiary	Usually at least 50m from main sett with no obvious paths connecting to other setts. May only be used intermittently.
Outlier	Little spoil outside holes. No obvious paths connecting to other setts and only used sporadically. May be used by foxes and rabbits.

Results

4.9.4 No badger setts were recorded within 30m of where lodges are proposed. A single badger sett was recorded approximately 100m from the southern boundary of the site at approximate grid ref. NZ 86626 11438. At the time of survey this sett was considered to be a disused outlier sett, comprising a single entrance which was relatively full of leaf litter and obstructed by a broken tree branch.

4.9.5 Photographs



Image 10: Badger sett

4.10 SITE SURVEY – REPTILE SURVEY

Methodology

4.10.1 Reptile surveys were recommended following the initial walkover survey and consultation undertaken with the local record centre providing slow worm and common lizard records within the vicinity of the site. The survey was carried out to methods advised within the Herpetofauna Worker Manual (2003), Froglife Advice Sheet 10 (Reptile Survey) and the NARRS Reptile Survey Pack. Seven survey visits were undertaken to assess the presence/absence of reptile species, with methods adopted during each visit including checking refuges (squares of roofing felt) put out on site two weeks prior to commencing the survey visits, direct observation and detecting any

reptile sloughs. Twenty refuges were placed out on site within the clearing and pasture grassland habitat, with ten refuges set out in each area.

- 4.10.2 The surveys were undertaken during May and June during optimal weather conditions for detecting basking reptiles. Surveys were therefore carried out when the air temperature was between 9 and 18°C, during sunny intervals from 7:00am to 7:00pm. Wet and windy days were avoided. Refer to **Table 11** below for weather conditions.

Table 14: Survey specifics

Date	Temp. (°C)	Cloud cover (%)	Wind speed (beaufort scale)	Rain
21.05.20	17	80%	1	Dry
26.05.20	17	40%	0	Dry
28.05.20	15	5%	0	Dry
29.05.20	16	0%	1	Dry
02.06.20	13	80%	1	Dry
09.06.20	10	50%	1	Dry
15.06.20	10	100%	0	Dry

Results

- 4.10.3 During all of the seven survey visits carried out, slow worm were recorded using the artificial refuges, with a maximum of 23 individuals recorded during the seventh visit. Slow worm were recorded in both the clearing and the area of pasture grassland to the south.

4.11 SITE SURVEY – BREEDING BIRD SURVEY

Methodology

- 4.11.1 The breeding bird survey consisted of two visits during the early and late breeding season based on the Common Birds’ Census (CBC) and Breeding Bird Survey methodologies devised by the British Trust for Ornithology (BTO). The techniques involved allow for the recording of locations and movements of individual birds over the defined survey area to within a distance of 50m (20m within woodland).
- 4.11.2 A pre-determined transect route was walked across the study site, taking into account field boundaries and adjoining hedgerows. Areas of woodland on site were observed from a static position at frequent points along a set route to within 20m of all accessible woodland. All bird activity was noted with particular attention to breeding behaviour of individual birds such as singing and/or displaying, adults carrying food or nesting material, juveniles or family groups, repeated territorial calls and territorial aggression.
- 4.11.3 Two survey visits were undertaken during suitable weather conditions on 6th May and 15th June 2020 between the hours of 6.00am after the peak activity period at dawn and 09.00am. Refer to Table 12 below for survey conditions.

Table 15: Survey specifics

Date	Time	Weather conditions
06.05.2020	06:45 – 08:45	Light southerly breeze, 3/8 cloud, sunny spells, dry, 6-8°C.
15.06.2020	06:15 – 08:15	Light northerly breeze, overcast with slight mist, 12-14°C.

- 4.11.4 Surveys were undertaken by experienced Senior Ecologist Maria Gill BSc (Hons) ACIEEM. Maria has over 12 years ornithological experience including several years as a bird ringer. Maria holds survey licences for barn owl and other protected species, and has worked as a consultant ecologist for six years.

Results

- 4.11.5 A total of thirty-two species were recorded during the breeding bird survey including one species identified during a bat transect survey undertaken in late May. Refer to Table 13 below for details of all bird species recorded. Locations of birds were mapped using a series of codes as recognised by the BTO. Findings were combined following completion of both visits to produce a plan showing territories, or potential territories, within the survey area and an additional figure showing non-breeding species observed foraging over or passing through site. Refer to *Figure 06* (appended) for breeding territories including reference to those species known to be of conservation concern (UK BAP/Red List or Schedule 1). Refer to *Figure 07* (appended) for locations of non-breeding species (four in total).

- 4.11.6 The breeding status of birds encountered within the site is classified in three categories: “confirmed”, “probable” and “possible” breeders, as detailed within Table 13. This categorisation has also been mapped (refer to *Figures 04* and *05* appended). The behaviour related to breeding bird evidence to which these categories are assigned is explained below:

- Confirmed breeding:
- Distraction display or injury feigning
 - Used nests or eggshells found (occupied or laid within the survey period)
 - Recently fledged young or downy young
 - Adults entering or leaving a nest site in circumstances indicating occupied nest or an adult sitting on nest
 - Adults carrying food for young or faecal sacs
 - Nest containing eggs
 - Nest with young seen or heard
- Probable breeding:
- Pairs observed in suitable nesting habitat in breeding season
 - Permanent territory presumed through registration or territorial behaviour (song etc.) on at least two different days, a week apart, at the same place
 - Display and courtship
 - Visiting probable nest site
 - Agitated behaviour or anxiety calls from adults
 - Building nest or excavating nest hole

Possible breeding: Species observed in breeding season in possible nesting habitat
Singing male(s) present or breeding calls heard in breeding season

4.11.7 Species in the UK which have been assigned red or amber status on the Birds of Conservation Concern (BOCC) List are considered to have experienced varying levels of breeding or non-breeding population declines, including historically. The failure to recover from such declines for many species is considered to be largely due to the change in agricultural practices over recent years.

Table 16: Bird species recorded during two visits. Breeding status codes correspond to descriptions above, “N” denotes no breeding evidence observed.

BTO CODES		Breeding Status			Protection / Conservation status
		Confirmed	Probable	Possible	
B.	Blackbird <i>Turdus merula</i>		✓		
BC	Blackcap <i>Sylvia atricapilla</i>	✓			
BT	Blue tit <i>Cyanistes caeruleus</i>		✓		
BF	Bullfinch <i>Pyrrhula pyrrhula</i>		✓		Amber List; UKBAP; Scarborough BAP
C.	Carrion crow <i>Corvus corone</i>	✓			
CH	Chaffinch <i>Fringilla coelebs</i>		✓		
CC	Chiffchaff <i>Phylloscopus collybita</i>	✓			
CT	Coal tit <i>Periparus ater</i>	✓			
D.	Duncock <i>Prunella modularis</i>			✓	Amber List; UKBAP
GC	Goldcrest <i>Regulus regulus</i>		✓		
GO	Goldfinch <i>Carduelis carduelis</i>		✓		
GT	Great tit <i>Parus major</i>	✓			
GL	Grey wagtail <i>Motacilla cinerea</i>	✓			Red List; Scarborough BAP
GR	Greenfinch <i>Carduelis chloris</i>			✓	
LI	Linnet <i>Linaria cannabina</i>	✓			Red List; UKBAP; Scarborough BAP
LT	Long-tailed tit <i>Aegithalos caudatus</i>	✓			
M.	Mistle thrush <i>Turdus viscivorus</i>		✓		Red List
MA	Mallard <i>Anas platyrhynchos</i>		✓		Amber List
MH	Moorhen <i>Gallinula chloropus</i>	✓			
NH	Nuthatch <i>Sitta europaea</i>		✓		
R.	Robin <i>Erithacus rubecula</i>	✓			
RO	Rook <i>Corvus frugilegus</i>			✓	
ST	Song thrush <i>Turdus philomelos</i>	✓			Red List; UKBAP; Scarborough BAP
SG	Starling <i>Sturnus vulgaris</i>			✓	Red List; UKBAP
TC	Treecreeper <i>Certhia familiaris</i>			✓	
TO	Tawny owl <i>Strix aluco</i>		✓		Amber List
WP	Woodpigeon <i>Columba palumbus</i>	✓			
WR	Wren <i>Troglodytes troglodytes</i>	✓			

4.11.8 With reference to *Figure 04: Breeding bird survey results*, breeding territory descriptions of the above species, if recorded breeding, are listed below in terms of numbers, behaviour and associated habitat:

Red List/UKBAP/LBAP species (high conservation concern)

- **Grey wagtail** – Single adults were noted during the late visit, in the vicinity of Dunsley Beck and Newholme Beck to the northwest of site, including an adult with food.
- **Linnet** – A single adult with food was perched on a gorse bush in the field to the south of site during the early visit.
- **Mistle thrush** – A single adult and a pair were observed within woodland to the north of site during the early visit, with the pair of birds agitated and alarm calling in response to the surveyor.
- **Song thrush** – Up to six territories identified with males singing across site during both visits. Fledged young noted within woodland during the late visit.
- **Starling** – A flock of fifteen birds recorded passing over site only in a south-westerly direction during the late visit.

Amber List (medium conservation concern)

- **Bullfinch** – a single pair were observed in undergrowth opposite Raithwaite Hotel during the early visit with both individuals calling.
- **Dunnock** – a single adult was observed within the hedgerow south of the Lake House during the early visit.
- **Mallard** – A peak count of five birds were recorded on the lake to the south of site during both visits, including calling males.
- **Tawny owl** – up to three adults noted calling (male and females heard) within woodland to the north of site and in the vicinity of the hotel, detected during the late May bat transect.

4.11.9 A further four species were noted passing through or foraging over site: herring gull *Larus argentatus*, raven *Corvus corax*, swift *Apus apus* and swallow *Hirundo rustica*. These species are identified as non-breeding due to showing no breeding behaviour or the lack of suitable nesting habitat within the proposed site boundary for the specific breeding requirements of these species. The site was noted to be used by swift and swallow for foraging purposes and suitable nesting habitat may be available in proximity to the survey area. Refer to *Figure 05: Non-breeding species* for sighting locations.

4.11.10 Mammals identified during breeding bird survey visits include roe deer *Capreolus capreolus* and grey squirrel *Sciurus carolinensis*.

Survey limitations

4.11.11 No limitations were encountered during the surveys, with all habitats accessible to within a distance of 50m (20m for woodland).

Conclusions

4.11.12 Thirty-two species were recorded during the surveys, summarised as follows:

- Thirteen species confirmed as breeding on or immediately adjacent to site, three of which are considered to be of high conservation concern (grey wagtail, linnet and song thrush);

- Ten species identified as probable breeders, one of which is considered to be of high conservation concern (mistle thrush) and three of medium conservation concern (bullfinch, mallard and tawny owl);
- Five species identified as possible breeders, one of which is considered to be of high conservation concern (starling) and one of medium conservation concern (dunnock).
- Of those species confirmed or likely to breed on site, five are listed as UKBAP Priority Species (bullfinch, dunnock, linnet, song thrush and starling). Bullfinch, grey wagtail, linnet and song thrush are afforded priority within the Scarborough LBAP.
- A further four species were recorded in flight above site, with two species observed foraging: swift and swallow. One species is of high conservation concern (herring gull) and one of medium conservation concern (swift). Swift and swallow are also both afforded priority within the Scarborough Local Biodiversity Action Plan.

4.11.13 No Schedule 1 protected species were identified during the survey.

5.0 IMPLICATIONS/RECOMMENDATIONS

5.1 NATURE CONSERVATION DESIGNATED SITES

- 5.1.1 No statutory designated nature conservation sites lie within a 2km radius of the proposals site. The site is located within the outer limits of the Impact Risk Zone of the North York Moors Special Area of Conservation (SAC) and North York Moors Site of Special Scientific Interest (SSSI), located approximately 5.8km to the south. The relevant Natural England (NE) Geographic Information System (GIS) dataset indicates that the nature and scale of the proposed works are unlikely to impact upon this site. It is considered that there will be no adverse impact upon these designated sites as a result of the development due to a combination of distance from the proposals site and intervening land uses (roads and built up areas) and the nature and scale of the proposals.
- 5.1.2 Five non-statutorily designated sites are located within 2km of the site. For four of the sites it is considered that there will be no adverse impact as a result of the development due to a combination of distance from the proposals site, intervening land uses (roads and built up areas) and the nature and scale of the proposals. Raithwaite Gill/Dunsley Beck SINC is located within close proximity to the north of the site, within proximity to the beginning of the existing track, which will be improved to provide access to the woodland rooms. In relation to the woodland rooms the SINC is approximately 100m to the north. No direct impact upon the SINC is therefore anticipated as a result of the proposals. Measures to protect the SINC will be adopted in relation to the development of the Raithwaite Estate which has received full planning permission from Scarborough Borough Council (planning ref: 18/00241/FL), including restricting access to existing footpaths and proposed access tracks only, keeping dogs on a lead and interpretation boards with information regarding woodland wildlife. Such measures would also assist in reducing any cumulative indirect impact upon the SINC as a result of any increased visitor pressure from the proposed woodland homes.
- 5.1.3 Ancient replanted woodland habitat occurs approximately 20m to the south of the southern site boundary. It is recommended that brash fencing is installed along the southern boundary, extending from the Dunsley Beck to existing post and rail fencing marking the western boundary of the pasture field; appropriate signage can be installed in association with the brash fence indicating that it marks an ancient woodland protection area.

5.2 HABITATS

- 5.2.1 Broadleaf woodland habitat on site is considered to be of local - county value, with the ground flora recorded being indicative of mature woodland habitat including species such as dog's mercury, bluebell, primrose and wild garlic. Woodland habitat is also included within the North York Moors BAP. To mitigate any impact of the proposed development, it is recommended that a woodland management and monitoring plan is produced which would include sympathetic management recommendations for the surrounding woodland habitat, such as:
- Sympathetic selective felling of trees, such as sycamore and larch and subsequent promotion of structural and species diversity within the woodland through tree and shrub planting. Tree and shrub species to be planted would be appropriate to the NVC communities identified;
 - Retention of standing dead wood, where it is safe to do so;

- Creation of log piles with felled material, creating fallen dead wood habitat;
 - Sympathetic removal of non-native shrubs identified within the understorey of the woodland habitat, such as rhododendron, where considered necessary, to allow the re-establishment of native ground flora and planting of appropriate native shrubs; and,
 - Monitoring of areas of dense introduced shrub habitats to the east of the site to assess whether these are encroaching into the woodland habitat and whether sympathetic management is required.
- 5.2.2 Monitoring surveys would be undertaken once the site becomes operational and management of the woodland has commenced to assess the effects of the management and allow for adjustment of management recommendations, if necessary.
- 5.2.3 Other habitats on site such as introduced shrub, the beech hedgerow and semi-improved neutral grassland are considered to be of lower value, though are still likely to be utilised by a range of wildlife such as foraging and commuting bats, nesting birds and invertebrates. It is recommended that these habitats are retained, where possible, in order to provide habitats for a range of species. Where losses have occurred, these could be mitigated through habitat creation and appropriate management, such as:
- Native hedgerow planting along the western and southern boundaries of the pasture field, which is currently bordered by post and rail fencing;
 - Translocation of turfs from the clearing, where areas are to be affected by works (i.e. proposed pathways, underneath woodland room platform, etc.) to unaffected areas of the pasture grassland habitat to the south;
 - Over-seeding of unaffected areas of pasture grassland in order to enhance species diversity; and,
 - Appropriate management of unaffected grassland habitats within the clearing area and the current pasture grassland, including a cut taken in late-summer with arisings removed from site.
- 5.2.4 In order to protect habitats of ecological value present and ensure that the proposed development provides enhancement to wildlife, the following is recommended:
- Use of temporary protective demarcation fencing to protect retained areas/features. The fencing must be in accordance with BS5837:2012 'Trees in Relation to Design, Demolition and Construction', extend outside the canopy of the retained trees, and remain in position until construction is complete;
 - Use of sediment fencing to the western boundary of the site during construction works to protect the Dunsley Beck adjacent to the west from pollution. The adoption of pollution prevention methods in regards to construction machinery;
 - Use of directional lighting during construction which will not shine upon the site boundaries, hedgerows or trees within the site, especially areas identified within transect surveys as important foraging and commuting areas for wildlife, such as bats;
 - Implementation of a sympathetic lighting scheme within the proposals that minimises illumination of the woodland habitat, especially areas identified within transect surveys as highly suitable for foraging bats, and the adjacent

Dunsley Beck. Lighting to be used will be sympathetic to the habitats and light sensitive species such as bats; this would include light bollards along walkways, with lighting directed down towards the path to avoid illumination of the surrounding woodland habitat and low level floor lights and wall mounted down lights to be used in association with the buildings, with lighting directed towards, rather than away from the buildings. Refer to paragraph 5.3.8 for further detail. Reference should be made to the document published by the Bat Conservation Trust and the Institute of Lighting Professionals 'Bats and artificial lighting in the UK' (2018);

- The creation of a reptile hibernacula within unaffected areas of grassland to the south. This should be constructed in order to provide suitable hibernation habitat for slow worm and include a slope which can be used as a basking bank; and,
- The installation of appropriate bird nesting boxes and bat boxes for the species identified on site during species specific surveys undertaken.

5.3 PROTECTED SPECIES

5.3.1 Existing records data and site survey have noted the potential for various protected species to occur within the search area or on site, upon which the potential effects of the proposed development are discussed in the following sections (refer to *Appendix 03* for relevant species legislation).

Great Crested Newts

5.3.2 No areas of standing water occur though habitats present are considered to provide potential opportunities for amphibians/great crested newts during their terrestrial phase, such as refuge, foraging and hibernation habitat. From consulting an OS base of the site there is one area of standing water within 500m of the site, this being the lake approximately 45m to the south. The lake was assessed using the HSI survey method and obtained a score which indicates that it is of average suitability to support great crested newts.

5.3.3 From consultation with the local records centre one record of great crested newt was provided within 2km of the proposals site, located over 1km to the north-east. Due to there being only one pond being located within 500m of the site, which is considered as largely unsuitable for newts (likely presence of fish, through flow from stream, etc.), the lack of ponds within proximity to the lake and the lack of records within 500m, no adverse impact upon great crested newt is anticipated as a result of the proposed development. No further survey for this species is necessary.

Bats – commuting/foraging habitat

5.3.4 Bat species recorded within 2km of the proposals site include field and roost records relating to a potential Serotine, Daubenton's, noctule, common pipistrelle, brown long-eared bat, pipistrelle species, *Myotis* species and unknown bat species, with the closest of these records being common pipistrelle, noctule and a *Myotis* species, located approximately 0.1km to the south of the site in 2016. The record relating to common pipistrelle represents a roost recorded within the building adjacent to the lake, outwith the site to the south.

5.3.5 The woodland, grassland, shrubs and hedgerow on site provide suitable habitat for foraging and commuting bats, acting as potential flight corridors and connecting the site to suitable adjacent habitats beyond the site boundary. Due to the suitability of the

habitats within the site for bat foraging and commuting and bats being recorded within proximity to the site, transect surveys were recommended to assess the use of the site by bats. Transect surveys were carried out until October, with one survey visit undertaken each month from May (two undertaken in May).

- 5.3.6 Survey visits have been undertaken, as detailed within section 4.8 of the report, which indicate that the habitats within the site are frequently utilised by bats with species recorded to date including common pipistrelle, soprano pipistrelle, an unknown pipistrelle species, noctule, Leisler's, brown long-eared, two *Myotis* species, considered likely to be Daubenton's and Natterer's bats, and a potential Serotine bat call which was confirmed as a Leisler's by North Yorkshire Bat Group (NYBG).
- 5.3.7 It is recommended that habitats within the site are retained as much as is feasible and that any losses are mitigated through habitat creation, such as hedgerow planting, over-seeding unaffected grassland with a diverse species mix, translocation of affected grassland habitat within the clearing and native tree and shrub planting. Sympathetic management of the woodland habitat has also been recommended, which would aim to enhance species and structural diversity and promote standing and fallen dead wood habitats.
- 5.3.8 To further this any new lighting will be appropriately designed including directional and low wattage luminaires to avoid illuminating the areas of planting. Proposals will include the installation of light bollards along walkways, with lighting directed down towards the path to avoid illumination of the surrounding woodland habitat, especially those areas identified as being frequently used by foraging bats, and low level floor lights and wall mounted down lights to be used in association with the buildings, with lighting directed towards, rather than away from the buildings. Reference should be made to the Bat Conservation Trust publications '*Artificial Lighting and Wildlife*' (2014) and '*Bats and Artificial Lighting in the UK*' (2018) which includes the following guidelines:
- Using warm white, narrow spectrum lights with little or no UV;
 - Low wattage (eg 20W);
 - Directional lighting with near full horizontal cut off, mounted at a low height;
 - Minimum height columns at maximum spacing.

Bats – potential tree roosts

- 5.3.9 Three trees (T24, T26 & T28, refer to figure 02) within and adjacent to the site were assessed as having a low to moderate potential to support roosting bats, with potential roost features identified including areas of dead wood and cavities.
- 5.3.10 The two trees assessed as having moderate potential (T26 & T28) were subject to an inspection to further assess the presence/absence of roosting bats. This included inspecting the potential bat roosting features with an endoscope to identify any signs of bat use. No signs of bat use were noted indicating the absence of roosting bats in these trees.
- 5.3.11 Prior to proposed felling works commencing, it is recommended that the two trees identified as having moderate potential are re-inspected in case roosting bats have become established within the trees within the interim period of the survey being undertaken and works commencing. If roosting bats are identified within any of these trees, a European Protected Species Mitigation (EPSM) Licence obtained from Natural England would be required prior to their proposed removal, with mitigation potentially

including felling works being undertaken during appropriate timings, under the supervision of an appropriately qualified ecologist and the provision of alternative roosting sites, such as suitable bat boxes for the species and roost type identified.

- 5.3.12 As T24 was assessed as having low potential to support roosting bats it is recommended that this tree is felled using a precautionary approach, with arborists undertaking felling works being alerted to the possibility of bats being present and the need for vigilance during felling. Soft felling methods would be used, including careful cutting (i.e. cutting through solid sections of the trees rather than where cavities occur and lowering of limbs, where necessary). The same methods should be used for T26 and T28 if following an inspection no signs of roosting bats are identified. If roosting bats are identified during felling works, works should halt and advice should be sought from an ecologist. An EPSM licence will be obtained prior to felling works re-commencing.

Breeding Birds

- 5.3.13 Of the thirty-two species recorded during surveys undertaken in May and June 2020, a total of thirteen confirmed breeding bird species were found to be utilising the site with a further fifteen species considered likely to breed on site. Nine species are of high or medium conservation concern due to population declines and five species are listed as Priority Species within the UK Biodiversity Action Plan. Of the four non-breeding species observed passing through or foraging over site, one is of high conservation concern, and one of medium conservation concern. No Schedule 1 protected species were recorded during the breeding bird survey.
- 5.3.14 Habitat across the proposed site is considered to be of importance to breeding birds, with the majority of the site comprising broadleaf woodland which provides a wildlife corridor in association with running water habitat (Dunsley Beck and Raithwaite Gill) and the adjacent lake to the south of site which flows into Newholme Beck. Areas of grassland, scrub and ornamental vegetation also provide nesting habitat.
- 5.3.15 The proposed construction of woodland lodges aims to retain as many trees within affected areas as possible, with lodges being slotted in between existing trees. The existing canopy will therefore be largely retained for use by resident and migrant bird populations. A sympathetic woodland management plan will aim to create more attractive habitat for woodland bird species.
- 5.3.16 Recommendations for habitat management include sympathetic felling of trees within the woodland and removal of non-native shrubs. All wild birds are protected under the Wildlife and Countryside Act 1981 (as amended) during breeding. It is therefore recommended that any vegetation clearance takes place outside the core bird nesting period (March – August inclusive) unless checks by an appropriately qualified ecologist find active nests to be absent immediately prior to clearance works. If nesting birds are identified advice will be sought. The advising ecologist will issue guidance in relation to the protection of the nesting birds in conjunction with the scheduled works. Measures such as applying a set boundary around the nest may be necessary until the young birds have fledged.
- 5.3.17 Recommendations for the creation and enhancement of existing habitat include the over-seeding of existing grassland to promote species diversity, planting of new native hedgerows, creation of log piles and standing deadwood. These recommendations will provide new nesting opportunities and provide a source of food for a range of invertebrate prey which will benefit local bird populations. New native boundary hedgerows will aim to maintain connectivity across the site. Planting of berry bearing tree/shrub species will provide foraging and breeding habitat for thrushes as well as

overwintering birds. Particular consideration should be given to the incorporation of native berry-bearing species such as rowan, guelder-rose, holly, hawthorn, blackthorn with ivy and honeysuckle climbers.

- 5.3.18 The installation of species-specific boxes upon suitable trees within the woodland would aim to provide roosting/breeding for bird species known to be of conservation concern and local bird populations in general. Nest boxes for key species recorded during site survey include tawny owl and starling, with boxes installed within the woodland to provide breeding opportunities for kestrel, flycatchers, willow tits and redstarts. Opportunities for the incorporation of nest boxes within the proposed build design itself may be limited due to the nature of the structures proposed however, where possible, permanent nest boxes factored into the build design should be given consideration.
- 5.3.19 Sympathetic management of existing and newly planted hedgerows should be considered to avoid disturbance to breeding birds. This involves the avoidance of management during the core active season March – August and preferably only to be carried out during January and February when the berry crop is mostly finished to benefit species during winter.

Badger

- 5.3.20 No signs of badger were recorded within or within close proximity to the site during the survey. A single disused outlier sett was identified approximately 100m to the south of the site.
- 5.3.21 Due to the presence of suitable habitat within and adjacent to the site and known badger activity within the surrounding area, an updated badger survey is recommended prior to construction works commencing to re-assess the use of the site and adjacent areas by badger and to identify any setts which may have become established within the interim period. If any setts become established within the site or within close proximity to the site (30m), a protected species licence obtained from Natural England may be required to allow for the exclusion of the setts prior to proposed construction works commencing to ensure badgers are not disturbed/harmed/killed. As exclusion works can only be carried out between 1st July and 30th November, the updating survey should be undertaken shortly prior or early within this period before construction works are due to commence, to reduce potential delay to the development.
- 5.3.22 It is also recommended that precautionary working methods are adopted during construction works, which will include the covering, or providing a means of escape from, any trenches and capping any open pipework at the end of each working day, to prevent accidental harm to badger or other mammals which may access the site.

Reptiles

- 5.3.23 Records of slow worm and common lizard were provided within 2km of the site, with slow worm records dated 2016, within the Raithwaite estate. Habitats on site were considered to offer suitable opportunities for reptile species, slow worm especially, with areas of grassland available for basking and foraging and areas of dense shrubs and woodland offering suitable habitat for refuge and hibernation. Reptile surveys were recommended on this basis and were undertaken in May and June 2020. Refer to section 4.10 detailing the methodology and results obtained.
- 5.3.24 During the surveys undertaken, slow worm were recorded as present, with this species being recorded during each of the seven visits and a peak count of 23 individuals recorded during the seventh visit.

- 5.3.25 To ensure the legislation afforded to reptiles is not contravened, it is recommended that prior to construction works commencing, reptile exclusion fencing is installed at the construction boundaries within the clearing and the pasture grassland to the south and that trapping and translocation of reptiles within these areas is carried out. The objective of the trapping and translocation exercise will be to remove all reptiles from the site and exclude them from the working area whilst construction works are taking place to avoid killing/harming reptile species. Any reptiles caught during the trapping period will be translocated to unaffected areas of the pasture grassland to the south, which is adjoined to areas of woodland habitat to the west. Once major construction works are complete, the reptile fencing can be removed to allow reptiles to re-access the site.
- 5.3.26 Reference has been made to *Herpetofauna Groups of Britain and Ireland (HGBI) Evaluating Local Mitigation/Translocation Programmes: Maintaining Best Practice and Lawful Standards* in regards to the effort recommended during the trapping and translocation for the site. The population of slow worm on site could represent a high population, with a peak count of 23 individuals recorded in areas which equate to 0.07ha in size and a high population of slow worm being over 100 individuals per hectare. The suggested minimum capture effort for slow worm where there is a high population is 90 suitable days, with trapping to stop when no individuals are found for five consecutive suitable trapping days. Due to the small sizes of the areas where slow worm were recorded it is considered that a 30 day trapping period will be sufficient to capture slow worm. The number of refuges required for the trapping and translocation works will be 100/hectare. Trapping and translocation will be undertaken as per the recommendations within the HGBI guidance, during April and late June and in late August and late September, depending on success of trapping undertaken during the spring/early summer period. During the trapping period, habitat manipulation will be undertaken in order to enhance capture. This will involve reducing the amount of suitable vegetation cover, thus rendering the reptiles easier to catch. Strimming or brush cutting the areas of rough grass and scrub and leaving 'islands' of rank vegetation so that the remaining reptiles will concentrate to those areas.
- 5.3.27 Within the woodland habitat, hand searches will be undertaken within areas proposed to be affected by works, such as the pathways and where pile driving is proposed. Hand searching will be undertaken immediately prior to works commencing and will be undertaken within the reptile active period (generally March – October) to avoid harm to potentially hibernating reptiles.
- 5.3.28 In addition to the trapping and translocation works and hand searching, precautionary working methods will be adopted during any vegetation clearance undertaken including directional clearance methods, clearing the vegetation in the direction of unaffected adjacent habitats and cutting vegetation above ground level within the reptile hibernation period (generally November – February) to avoid harming potentially hibernating reptiles. If necessary root systems can be removed once reptiles are active.
- 5.3.29 To mitigate for the loss of suitable reptile habitat it is recommended that the proposals incorporate habitat creation measures, such as hedgerow planting, seeding of the pasture grassland with a diverse seed mix and the creation of a reptile hibernacula within the pasture grassland habitat to be unaffected by works.

Otter

- 5.3.30 Records of otter were provided within consultation with NEYEDC, being recorded along the River Esk, Whitby in 2001.

- 5.3.31 The Dunsley Beck occurring adjacent to the western boundary of the site is considered to offer opportunities for otter, as well as the lake outwith the site, approximately 45m to the south of the site. Due to the small size of Dunsley Beck, it is considered unlikely that otter would establish holts along the watercourse; however, this species may utilise it for commuting purposes.
- 5.3.32 A checking survey of the beck was undertaken in June 2020, following a period of dry weather to identify any otter signs that may be present, such as spraints, footprints and tracks. No signs of otter were identified; however, due to the suitability of the habitat precautionary measures are recommended to avoid adverse impact upon this species. This would include the adoption of pollution prevention measures during construction works, such as the installation of sediment fencing along the western extent of the proposals boundary and the covering, or providing a means of escape from, any trenches and capping any open pipework at the end of each working day, to prevent accidental harm to otters which may access the site.

Other protected species

- 5.3.33 The Dunsley Beck is considered unsuitable for use by water vole, due to being overshadowed by surrounding woodland habitat and lacking aquatic vegetation. Records of water vole provided by the NEYEDC are relatively distant from the proposals site (> 1km). No adverse impact upon water vole is therefore anticipated.
- 5.3.34 No records of white-clawed crayfish were provided within the consultation held with the NEYEDC. No direct impact upon the adjacent Dunsley Beck is proposed and precautionary working methods are recommended to be adopted during construction works in relation to the beck. No adverse impact upon this species is therefore anticipated.

5.4 NOTABLE SPECIES

Hedgehog

- 5.4.1 Records of hedgehog have been provided within the Raithwaite Estate and habitats on site are considered to be suitable for this species. Precautionary working methods will therefore be adopted to ensure hedgehogs are not harmed/killed during works. Such works would include the removal of any tree/shrub cuttings from site, once vegetation is cut so as to avoid the creation of brash piles; these may be attractive to hedgehogs, which could subsequently be harmed if the brash pile is burnt or removed with machinery. If brash piles are to be kept on site to create valuable dead wood habitat, these should be situated in their permanent location to avoid adverse impact upon hedgehog. In addition, any trenches created on site will be covered or a means of escape shall be provided and any open pipe work will be capped at the end of each working day.
- 5.4.2 It is recommended that small gaps (0.15m) are left under any sections of new fencing/walls within the development to allow passage of hedgehog and maintain connectivity across the site.

5.5 OTHER SPECIES

- 5.5.1 Roe deer have been recorded within the site during surveys undertaken. Precautionary working methods as recommended for otter, badger and hedgehog should be adopted to avoid the harm of this species during construction works.

6.0 CONCLUSIONS

- 6.1.1 Broadleaf woodland on site is considered to be of local to county value, representing mature woodland, with a diverse ground flora layer comprising species typical of mature woodland habitats. Where the woodland rooms are proposed within this habitat, the canopy largely comprises pine trees and the ground layer in this area is relatively sparse in comparison to the surrounding woodland habitat, where broadleaf trees dominate the canopy. Other habitats on site, including dense introduced shrubs, a beech hedgerow and semi-improved neutral grassland are considered to be of lower value, but are still likely to be of value to a range of wildlife such as foraging and commuting bats, nesting birds, etc.
- 6.1.2 No impacts upon designated sites are anticipated as a result of the proposed development. The site is located within close proximity to the Raithwaite Gill/Dunsley Beck SINC. No direct impact upon the SINC is anticipated as a result of the proposals and measures to protect the SINC will be adopted in relation to the development of the Raithwaite Estate which has received full planning permission from Scarborough Borough Council (planning ref: 18/00241/FL); such measures would also assist in reducing any cumulative indirect impact upon the SINC as a result of increased visitor pressure from the proposed woodland homes. Ancient replanted woodland habitat occurs approximately 20m to the south of the southern site boundary. Measures to ensure the protection of the ancient woodland have also been recommended.
- 6.1.3 Recommendations for general site enhancements and mitigation include sympathetic management of the woodland habitat, appropriate native species planting, sympathetic lighting, provision of gaps within any walls/fencing to allow passage of hedgehogs across the site and incorporation of bird/bat nesting/roosting features.
- 6.1.4 Bat transect surveys identified a moderate to high use of the site by foraging and commuting bats. Recommendations made with the aim to ensure the continued use of the site by bats include sympathetic use of artificial lighting, appropriate management of the woodland habitat and habitat creation such as hedgerow planting and wildflower grassland seeding.
- 6.1.5 Slow worm have been identified using grassland habitat on site. Appropriate mitigation recommendations include the trapping and translocation and hand searching for this species within areas where construction is proposed and habitat creation measures including the provision of a reptile hibernacula.
- 6.1.6 Updated surveys are recommended prior to works commencing to re-assess the presence/absence of badger setts within or in proximity to the site and roosting bats within trees proposed for removal. The updated surveys will consider the requirement for appropriate mitigation, where necessary.
- 6.1.7 Precautionary working methods have been recommended for species such as badger, otter, reptiles, hedgehog and breeding birds.

7.0 REFERENCES

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FIGURES

Figure 01: Aerial Photograph (included within body of report)

Figure 02: Phase 1 Habitat Plan

Figure 03: Water Body Locations (included within body of report)

Figure 04: Transect route and locations of remote detectors (included with body of report)

Figure 05: Activity levels observed during transects (included within body of report)

Figure 06: Breeding Bird Survey Results

Figure 07: Breeding Bird Survey Results – Non-breeding birds & mammals

FIGURE 02: PHASE 1 HABITAT PLAN

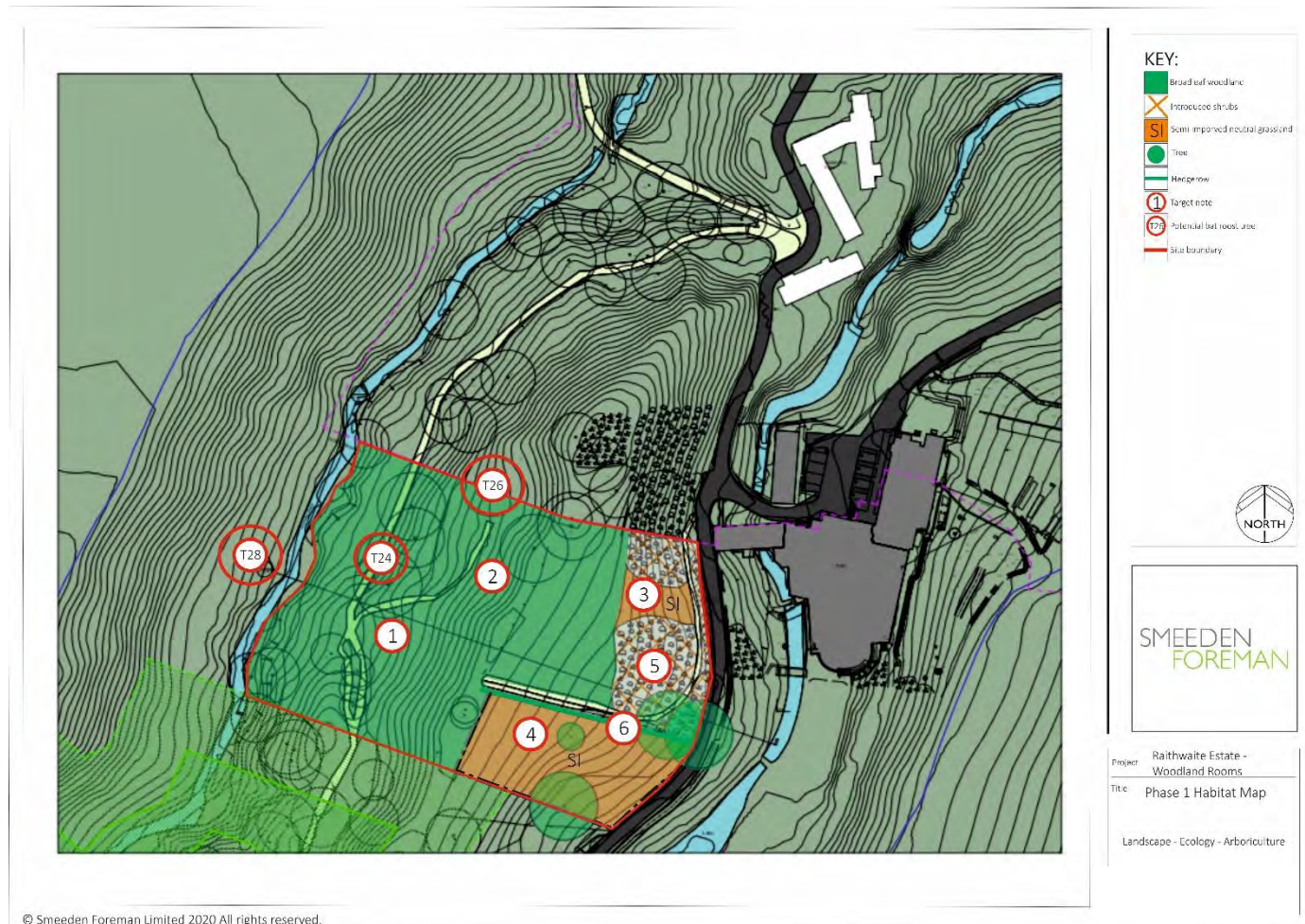


FIGURE 06: BREEDING BIRD SURVEY RESULTS

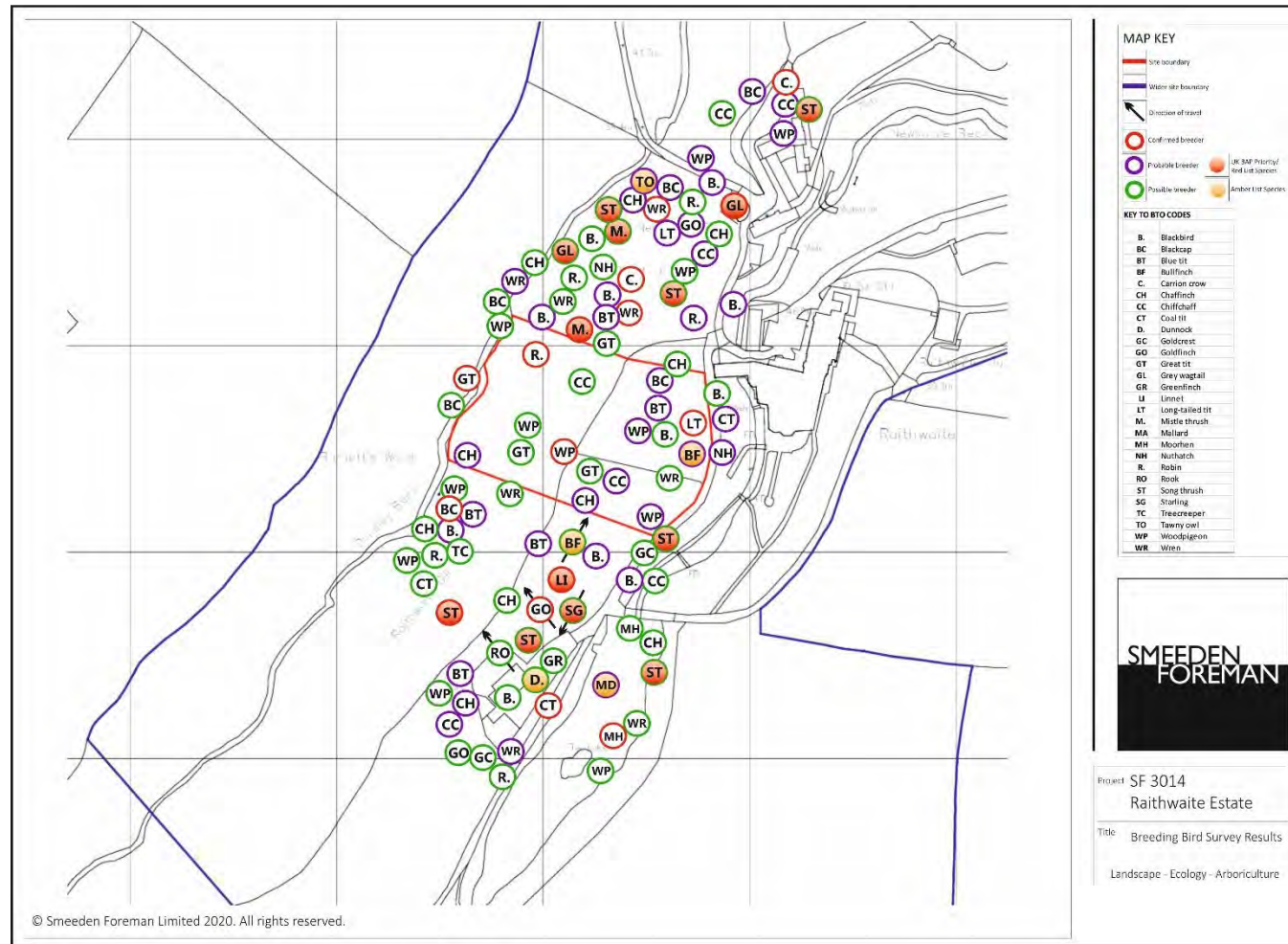
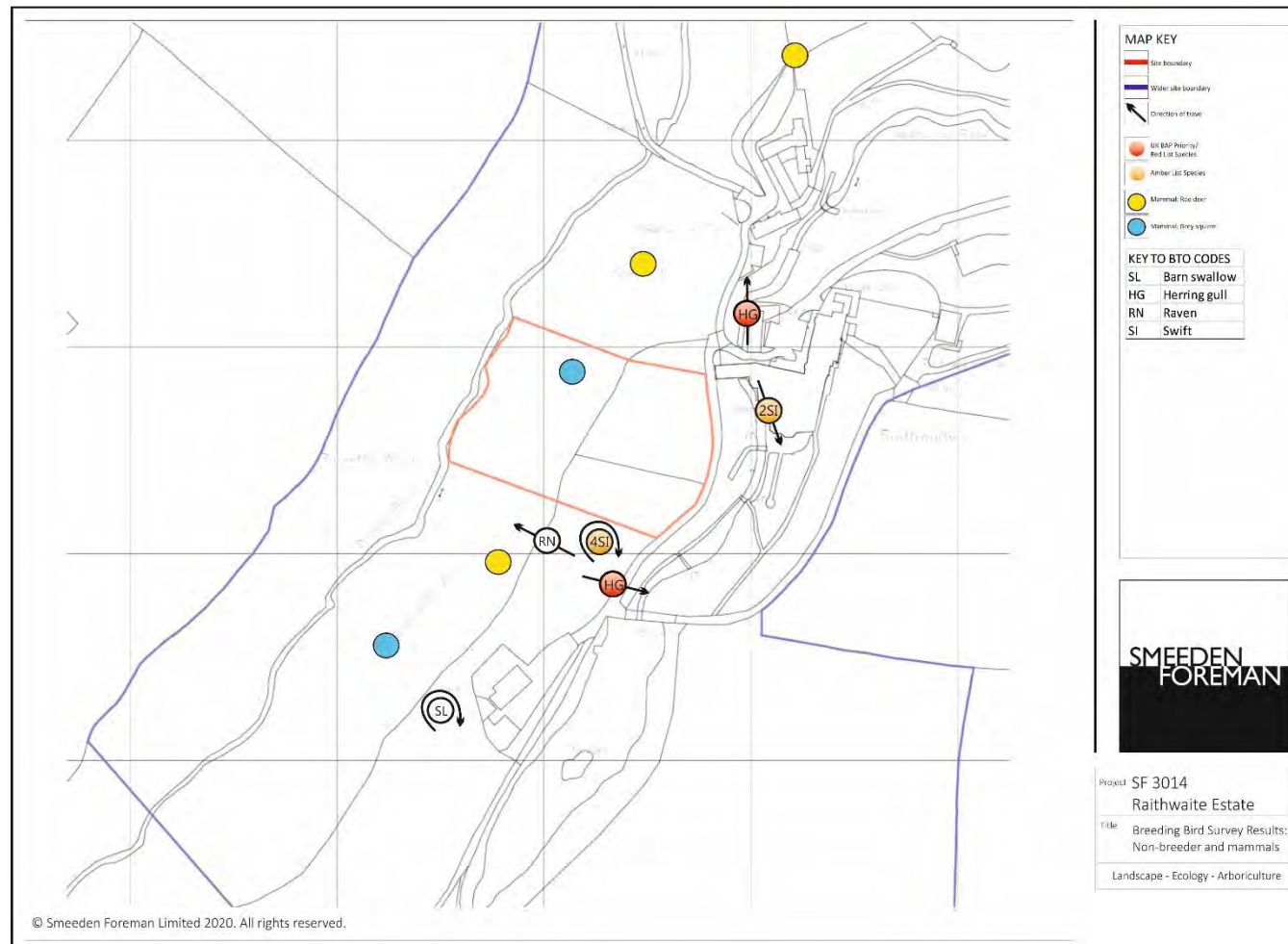


FIGURE 07: BREEDING BIRD SURVEY RESULTS – NON-BREEDING BIRDS & MAMMALS



APPENDICES

Appendix 01: Principle Legislation and Policies

Appendix 02: Designated Site Map

Appendix 03: Protected Species Legislation

APPENDIX 01: PRINCIPLE LEGISLATION AND POLICIES

Principle Legislation

Wildlife and Countryside Act 1981 (as amended)

This is the primary legislation for nature conservation in England and Wales. It confers varying degrees of protection on selected species according to their conservation status, ranging from making it an offence to take a species from the wild for profit, to full protection of a species and its habitat. The Act also gives guidance and instruction on statutory sites, such as sites of Special Scientific Interest (SSSI). License exempting specific works can be granted by Natural England. Such licenses are only granted once a full assessment has been made and an appropriate, sustainable mitigation package devised.

Protection of Badgers Act 1992

Allied to the Wildlife and Countryside Act, 1981 are subsidiary Acts such as the Protection of Badgers Act, 1992 which consolidated and added to previous legislation. According to the PBA it is an offence to wilfully kill, injure or maim a badger. Badger setts are also protected from interference unless such activities are licensed through Natural England. Any mitigation packages devised for badgers found on development sites must be agreed by Natural England and all mitigation activities must be fully licensed.

Countryside and Rights of Way Act 2000

As well as providing measures to improve countryside access for walkers, ramblers and horse riders, this Act also strengthens the protection of species and designated sites made in the Wildlife and Countryside Act 1981. This Act also gives the importance of biodiversity conservation statutory basis requiring government departments to have regard for biodiversity in carrying out their functions, and to take positive steps to further the conservation of listed species and habitats.

Natural Environment and Rural Communities Act (NERC), 2006 – Biodiversity Duty

NERC received royal assent in March 2006. Section 40 of the Act replaces and extends a duty, from Section 74 of the Countryside and Rights Of Way Act 2000, on Ministers and Government which already requires them to have regard to the purpose of conserving biodiversity. Section 40(1) states that, "*Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.*"

EC Habitats Directive (92/43/EEC)

This Directive aims to give Europe-wide protection to certain rare and threatened habitats on land and at sea. It builds on legislation already established under the Birds Directive of 1979, and aims to establish a series of protected sites known as Natura 2000 series. These sites are intended to protect the unique and special wildlife of Europe and to preserve it for future generations. In Britain these Natura 2000 sites include those areas designated as Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). The Habitats Directive is implemented in the UK through the Conservation of Habitats and Species Regulations 2017.

EC Birds Directive (79/409/EEC)

The Directive provides a framework for the conservation and management of, and human interactions with, wild birds in Europe. It sets broad objectives for a wide range of activities, although the precise legal mechanisms for their achievements are at the discretion of each Member State (in the UK delivery is via several different statutes). The Directive applies to the UK and to its overseas territory of Gibraltar.

The main provisions of the Directive include:

The maintenance of the favourable conservation status of all wild bird species across their distributional range with the encouragement of various activities to that end;

The identification and classification of Special Protection Areas (SPAs) for the rare and vulnerable species listed in Annex I of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance;

The establishment of a general scheme of protection for all wild birds; Restrictions on the sale and keeping of wild birds.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997 were made under Section 97 of the Environment Act 1995 and came into force in 1997. They introduced new arrangements for local planning authorities in England and Wales to protect important hedgerows in the countryside, by controlling their removal through a system of notification. Important hedgerows are defined by complex assessment criteria, which draw on biodiversity features, historical context and the landscape value of the hedgerow.

For species-specific legislation, please refer to *Appendix 03* for further information.

Policy

National Planning Policy Framework (2018)

The National Planning Policy Framework replaces Planning Policy Statement 9 (PPS 9) Biodiversity and Geological Conservation but the accompanying guidance document (ODPM 06/2005: Biodiversity and Geological Conservation-Statutory Obligations and their impact within the Planning System) has not been withdrawn.

The NPPF sets out the Government's policies on the protection of biodiversity and sites of geological interest through the planning system. It required local planning authorities, when taking decisions, to ensure that appropriate weight is attached to designated sites of international, national and local importance, protected species and to biodiversity and sites of recognised geological interest within the wider environment. It states:

"The planning system should contribute to and enhance the natural and local environment by:

Protecting and enhancing values landscapes, geological conservation interests and soils;

Recognising the wider benefits of ecosystem services;

Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures."

"When determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

If significant harm resulting from a development cannot be abided (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."

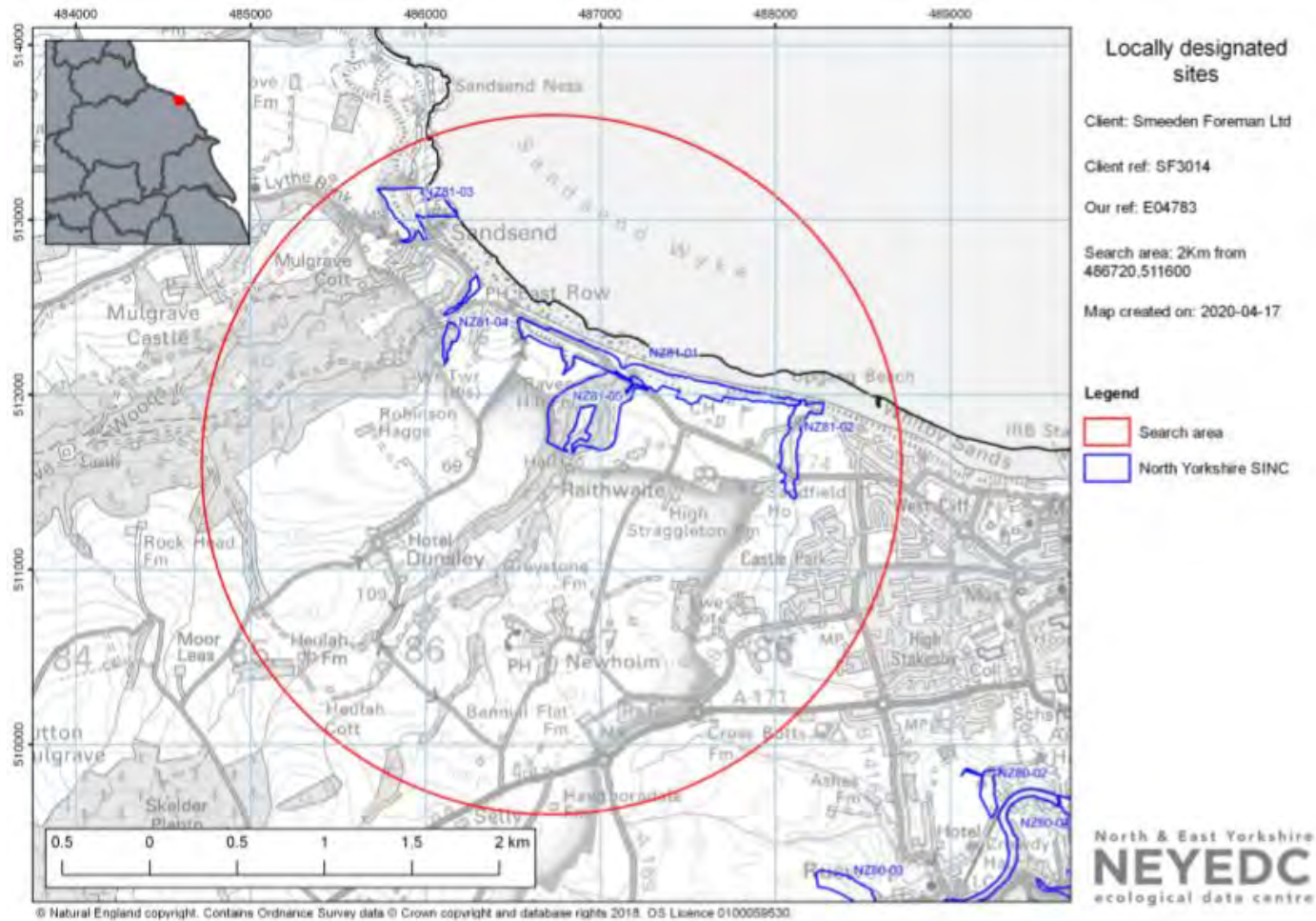
Biodiversity Action Plan (BAP)

In 1993, the UK government consulted over three hundred organisations throughout the UK and held a two day seminar to debate the key issues raised at the Convention of Biological Diversity. The product of this was the launch of Biodiversity: the UK Action Plan in 1994 which outlined the UK Biodiversity Action Plan for dealing with biodiversity conservation in response to the Rio Convention.

The UK Biodiversity Steering Group was created in 1994 and published Biodiversity: the UK Steering Group Report – meeting the Rio challenge. This established the framework and criteria for identifying species and habitat types of conservation concern.

From this list, action plans for 391 species and 45 broad habitat types were produced. As well as having national priorities and targets, action was also taken at a local level. The Steering Group drew up a set of guidelines that were discussed with the Local Authority Association and the Local Government Board. Today there are 162 Local Biodiversity Action Plans in the UK. A review of the UK BAP was undertaken between 2003 and 2006.

APPENDIX 02: DESIGNATED SITES MAP



APPENDIX 03: PROTECTED SPECIES LEGISLATION

Bats

Bats and their roosts are afforded full legal protection under both UK and European legislation. Conservation of Habitats and Species Regulations 2017 transpose the Habitats Directive into UK law, making it an offence to:

- deliberately disturb a bat;
- deliberately kill, injure or capture a bat;
- damage, destroy or obstruct access to a breeding site or resting place (note this applies to both deliberate and reckless actions).

The Wildlife and Countryside Act 1981 (as amended) (Schedule 5) made it an offence to:

- intentionally kill, injure or take a bat ;
- damage, destroy or obstruct a bat roost *;
- disturb a bat at a roost *;
- possess or control a bat or any part thereof;
- sell, offer for sale, possess or transport for sale any bat or part thereof;
- set traps for catching, killing or injuring bats;
- possess articles for the purposes of committing offences against bats;

[*= intentional and reckless offences covered].

Legal protection under the Habitats Directive applies to the animals and their breeding sites and resting places. This means that bat roosts are fully protected, whether they are in use at the time or not. Where roosts or resting/breeding sites are identified, any works which may contravene the protection afforded to them require derogation from the provisions of the legislation in the form of a licence from Natural England..

Great crested newts

The Wildlife and Countryside Act 1981 (as amended) transposes into UK law and the Convention on the Conservation of European and Wildlife and Natural Habitats (commonly referred to as the 'Bern Convention'). The 1981 Act was amended by the Countryside and Rights of Way ['CRoW'] Act 2000.

The great crested newt is listed on Schedule 5 of the 1981 Act, and is therefore subject to the provisions of Section 9, which make it an offence to:

- Intentionally kill, injure or take a great crested newt [Section 9 (1)];
- Possess or control any live or dead specimen or anything derived from a great crested newt [Section 9 (2)];
- Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt [Section 9 (4)(a)];
- Intentionally or recklessly disturb a great crested newt while it is occupying a structure or place which it uses for that purpose [Section 9(4)(b)].

The Conservation of Habitats and Species Regulations 2017 transpose into the UK law Council Directive 92/43/EEC of 21st May 1992 on the conservation of Natural Habitats and of Wild Fauna and Flora (often referred to as the 'Habitats [and Species] Directive'). The great crested newt is listed on Annex II and Annex IV of the Directive. The former Annex relates to the designation of Special Areas of Conservation (SACs) for this species; even where great crested newts occur outside SACs, the inclusion on Annex II serves to underline their conservation significance. Inclusion of the Annex IV ('European Protected Species') means that member states are required to put in place a system of strict protection as outlined

in Article 12, and this is done through inclusion on Schedule 2 of the Regulations. Regulation 43 makes it an offence to:

- Deliberately capture or kill a great crested newt [Regulation 43(1)(a)]
- Deliberately disturb a great crested newt [Regulation 43(1)(b)]
- Deliberately take or destroy the eggs of a great crested newt [Regulation 43(1)(c)]
- Damage or destroy a breeding site or resting place of a great crested newt [Regulation 43(1)(d)]

The legislation applies to all life stages of great crested newts.

Breeding birds

The Wildlife and Countryside Act 1981 (as amended) makes it an offence to:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built or,
- take or destroy an egg of any wild bird.

This protection applies from the moment the nest is being built. Additional protection against disturbance on the nest or of dependent young is provided for birds included on Schedule 1.

Badger

Badgers and their setts are protected by the Protection of Badgers Act 1992. Under the Act it is illegal to:

- Wilfully kill, injure or take a badger or attempt to do so;
- Cruelly ill-treat a badger; and,
- Interfere with a sett by doing any of the following:
 - (i) damaging a badger sett or any part of it;
 - (ii) destroying a badger sett;
 - (iii) obstructing access to a badger sett;
 - (iv) causing a dog to enter a sett; and,
 - (v) disturbing a badger while it is occupying a sett.

Reptiles

The Wildlife and Countryside Act 1981 makes it an offence to intentionally kill any of our native snakes and lizards. The sand lizard and smooth snake receive additional protection; for these species, it is unlawful to capture or possess them, or to damage/obstruct access to places they use for shelter or protection, or to disturb them whilst in such a place.

Otter

Otter are afforded full legal protection under both UK and European legislation. The Conservation of Habitats and Species Regulations 2017 transpose the Habitats Directive into UK law, making it an offence to:

- deliberately capture, injure or kill an otter;

- deliberately disturb an otter in such a way as to be likely to significantly affect the local distribution or abundance of otters or the ability of any significant group of otters to survive, breed, rear or nurture their young; or,
- damage or destroy an otter holt.

The otter is also protected under Section 9(4)(b) of the Wildlife and Countryside Act 1981

- intentionally or recklessly disturb any otter whilst it is occupying a holt; or,
- intentionally or recklessly obstruct access to a holt.