

Preliminary Ecological Appraisal

**Bowland Wild Boar Park,
Wardsley Road,
Chipping
PR3 2QT**

Provided for:

Bowland Wild Boar Park,
Wardsley Road,
Chipping,
PR3 2QT

28th April 2023



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Summary

Surveys and a preliminary ecological appraisal were carried out in 2023 to assess the value or likely value of the proposed development site.

The demonstrable value of the proposed development site, and therefore its ecological constraints are as follows:

- Its position with the Forest of Bowland AONB
- Its position adjacent to Swaney Holme Wood & New Ground Wood Biological Heritage Site
- The presence and use by bats
- The presence and use by a range of bird species, including at least one nesting species
- The presence and use by brown hare
- The presence of Biodiversity Action Plan Broad Habitats
- The presence of a single habitat listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 – hedgerow
- The presence of common toad

In addition, the proposed development area also has **potential** value and therefore **potential** ecological constraints in relation to:

- Use by protected species including badgers
- Use by other important species, including hedgehog

In addition, there is **potential** for Himalayan balsam to occur on the proposed development site, as a result of its close proximity within the surrounding landscape.

Management advised and recommended to address the ecological constraints is as follows:

- Take full account of the impact on the AONB
- Undertake careful pre-works, during works and post-works precautions as regards all protected and other important species (including pre-commencement checks and sensitive use of artificial lighting)
- Avoid damage to the adjacent Biological Heritage Site
- Minimise disturbance to and loss of habitats
- Protect retained trees
- Adopt measures to control the potential for non-native invasive species to spread onto the proposed development site and surrounding area

Opportunities for ecological enhancement are as follows:

- Enabling the development of dense sheltering woody vegetation (e.g. scrub), particularly in association with existing trees.
- Using and encouraging the growth of native species of local provenance.
- Incorporation of bird boxes into the design of new structures and bat boxes on trees.

It is the professional judgement of Ecology Services UK Ltd that in the case of the proposed development at Bowland Wild Boar Park, a Preliminary Ecological Appraisal provides a sufficient level of detail; this reflects the small-scale nature of the development, the ecological features present and the predicted impacts of the scheme. This judgement is made on the basis that all mitigation and enhancement works, as outlined in section 6 of this report, are fully specified in the scheme proposal and other submitted documents.

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App 2 – Habitat and designated sites map

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1 Introduction

1.1 This report has been produced on behalf of Bowland Wild Boar Park as part of the information required for a proposed development on land to the north of the Wild Boar Park site. The proposed development comprises the erection of 5 holiday lodges and 4 camping pods, along with associated infrastructure.

1.2 Ecology Services UK Limited was commissioned in March 2023 to carry out a preliminary ecological appraisal (PEA) and to produce a report. A previous PEA of an adjacent area was undertaken in 2019, and a report produced in 2020.

1.3 It is proposed to seek planning permission for the proposed development.

1.4 The information contained within this report comprises:

- The methodology used for the surveys
- A brief description of the proposed development site
- The results from the surveys
- Limitations to the surveys
- Advice and recommendations in relation to the survey site and the proposed development

1.5 This report complies with national best practice guidance as outlined in:

Chartered Institute of Ecology and Environmental Management (2017), *Guidelines for Preliminary Ecological Appraisal. Second Edition*. CIEEM, Hampshire

Pat Waring and Janette Gazzard carried out the surveys and prepared the report.

1.6 Pat is a licensed great crested newt surveyor, a licensed bat worker (Class 2 licence), a registered consultant of the Bat Mitigation Class Licence, a Chartered Environmentalist and a full member of the Chartered Institute of Ecology and Environmental Management, with a Bachelor of Science degree in Biology.

Pat has been working as an ecological consultant for over 25 years, including over 18 years as Director of Ecology Services UK Limited. This work includes provision of expert advice and guidance to bodies such as Statutory Nature Conservation Organisations, Local Planning Authorities and Lancashire Police Authority, as well as the delivery of professional ecological training courses at a national level.

Pat has recognised and extensive experience and knowledge of ecological survey, monitoring, condition assessment and impact assessment techniques. He has extensive knowledge of protected species ecology, particularly bats, birds (within and outside the nesting season), badgers, amphibians and reptiles, including the requirements and conditions necessary for minimising impacts on these species. He also has recognised skills relating to protected species surveys and assessment.

Janette is a full member of Chartered Institute of Ecology and Environmental Management, with a Bachelor of Science degree in Environmental Management.

Janette has over 19 years' experience working in ecology and nature conservation, including roles as a Senior Ecologist for a large multidisciplinary company and as a lead adviser for Natural England throughout the North West of England. She has a range of demonstrable skills including habitat surveys, ecological appraisals, protected species surveys and mitigation, conservation management advice and condition assessments.

Pat and Janette meet the requirements for knowledge, skills and practical experience as outlined in the CIEEM technical guidance series, Competencies for Species Surveys available at: <http://www.cieem.net/competencies-for-species-survey-csS>

Pat and Janette have been undertaking wildlife surveys at Bowland Wild Boar Park since autumn 2016; these include installing and checking bat boxes and undertaking breeding bird surveys.

1.6 Advisory note

The information in this letter represents the professional opinion of an ecological consultancy and does not constitute professional legal advice. You may wish to seek professional legal interpretation of the wildlife legislation associated with this area of work.

The information, opinion and advice that Ecology Services UK Ltd has prepared are true, and have been prepared in accordance with the CIEEM Code of Professional Conduct. Ecology Services UK Ltd confirms that the opinions expressed are our true professional bone fide opinions.

Ecology surveys are time-limited; as a rule, survey findings can generally be relied on for the season in which surveys took place. However, mobile species such as bats and birds may increase or decrease in numbers and change behaviours over time. Statutory agencies will often accept survey results for 12-18 months, but this varies around the country.

Ecology Services UK Ltd personnel make a professional judgement as to how long the results of our surveys can be relied on, for the purposes of a planning submission or similar. Advice and recommendations as regards currency and its impacts on decision making are included in section 6 of this document.

It is the professional judgement of Ecology Services UK Ltd that in the case of the proposed development at Bowland Wild Boar Park, a Preliminary Ecological Appraisal provides a sufficient level of detail; this reflects the small-scale nature of the development, the ecological features present and the predicted impacts of the scheme. This judgement is made on the basis that all mitigation and enhancement works, as outlined in section 6 of the current report, are fully specified in the scheme proposal and other submitted documents.

2 Objectives and methodology

2.1 General background

The brief for this work was to carry out a preliminary ecological appraisal of a proposed development site to the western section of Bowland Wild Boar Park in Chipping, Lancashire.

Information gathering involved a desk-based study and site surveys.

The methodology was designed to address the following objectives.

- To identify designated sites, habitats and protected species present on and adjacent to the proposed development site
- To assess the potential for protected species to occur on the proposed development site
- To enable clear advice to be provided regarding the implications of designated sites, habitats and protected species presence
- To enable clear advice to be provided regarding the potential for occurrence of protected species, such as the need for further surveys

The assessment focussed on a number of aspects which, if present, would help to determine the ecological value of the site and therefore help to identify any potential constraints to the proposed development.

These aspects were as follows:

- Presence of sites and features designated for ecological reasons
- Presence or likely presence of protected species
- Nesting and other significant use by birds
- Presence of important habitats and species (including Biodiversity Action Plan (BAP) broad habitats, as well as Species and Habitats listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006)
- Presence of hedges
- Presence of invasive, non-native species

2.2 Desk-based study

2.2.1 Presence of designated sites

Information about statutorily designated sites, ancient woodlands and Local Nature Reserves was accessed from the MAGIC map website (<https://magic.defra.gov.uk/>).

Information about the location of non-statutory wildlife sites was accessed from the Ribble Valley Districtwide Local Plan Adopted June 1998.

A previous PEA for an adjacent area, from 2019, was reviewed; this contained information about non-statutory wildlife sites in the vicinity of Bowland Wild Boar Park.

2.2.2 Presence or likely presence of protected species and other species of note

A previous PEA for an adjacent area, from 2019, was reviewed; this contained information about protected species in the vicinity of Bowland Wild Boar Park.

Information was also obtained from planning applications lodged on the Ribble Valley Borough Council website, Ecology Services UK Ltd records relating to the Wild Boar Park and information from the current woodland management plan for the Wild Boar Park.

2.3 Field-based surveys

The following surveys were undertaken.

Survey	Dates	Surveyors
Daytime walkover survey of proposed development site and immediate surroundings	4/4/2023	Pat Waring, Janette Gazzard
Deployment of 1x Anabat Express unmanned bat detector within the proposed development site	4/4/2023 to 17/4/2023	N/a (unmanned)
Deployment of 1x Song Meter Mini unmanned acoustic detector within the proposed development site	4/4/2023 to 17/4/2023	N/a (unmanned)
Daytime walkover survey of proposed development site and immediate surroundings	17/4/2023	Pat Waring, Janette Gazzard

Table1 - Survey dates

2.3.1 Presence or likely presence of protected species

The proposed development site and its close surroundings (within and adjacent to the predicted impact zone) were assessed for their potential to support a range of protected species known to occur in the Lancashire area, including great crested newts, reptiles, bats, badgers and nesting birds.

After the site visits, it was recognised that the proposed development site was unsuitable for the following protected species (as a result of current use of the proposed development site, its immediate surroundings and the availability and condition of habitats present):

- Water vole
- Otter
- Barn owl
- Bats (roosting)

Amphibians – not including common toad

A search for amphibians, with a particular focus on great crested newts, was made of accessible parts of the proposed development area and its surroundings. This was followed by an assessment of waterbodies potentially suitable for breeding, potential sheltering sites, and also the likely availability of feeding resources.

The methods used for the amphibian survey complied with the following documents:

Gent, T. and Gibson, S. (2003). *Herpetofauna Workers Manual*. JNCC, Peterborough.

Sewell, D. (2017) *Survey protocols for the British herpetofauna Version 1.0*. Amphibian and Reptile Conservation

An amphibian habitat assessment was made focussing on foraging resources, habitat extent and connectivity and mortality risk factors.

Reptiles

A search for reptiles was made of accessible parts of the proposed development area and its surroundings, including likely sheltering features such as areas of dense vegetation. This was followed by an assessment of potential sheltering sites and basking features, as well as the likely availability of feeding resources.

The methods used for the reptile survey complied with the following documents:

<https://www.gov.uk/guidance/reptiles-protection-surveys-and-licences>

Sewell, D. (2017) *Survey protocols for the British herpetofauna Version 1.0*. Amphibian and Reptile Conservation

A reptile habitat assessment was made focussing on foraging resources, habitat extent and connectivity and mortality risk factors.

Badgers

During the field surveys, the survey area and its surroundings (including accessible parts of the adjacent woodland) were subjected to examination for signs of use by badgers, including:

Latrines (collections of dung pits), setts, hairs, badger paths, footprints, snuffle holes and scratching posts.

The badger survey complied with guidance in Harris, S. Cresswell, P. Jefferies, D. (1989) *Surveying Badgers. Occasional Publication No.9. The Mammal Society*.

A badger habitat assessment was made focussing on foraging resources, habitat extent and connectivity and mortality risk factors.

Bats

No buildings suitable for use by roosting bats were located on or adjacent to the proposed development site.

All trees within and immediately adjacent to the proposed development site were examined. Observations were made from ground level; telescopic 3.8 metre ladders were available but not required. A 1000 lumens Led Lenser X21 torch, close-focussing Swarovski 8x32 binoculars and a rigid CA-300 endoscope were available but not required.

A single Anabat Express bat detector was deployed towards the centre of the proposed development site over thirteen evenings. The Anabat was set to run daily from 30 minutes before sunset to 30 minutes after sunrise, the period when bats were expected to be active.

The methods used for bat surveys comply with those outlined in current best practice guidance:

Collins, J. (ed) (2016) *Bat Surveys for Professional Ecologists: Good Practice guidelines (3rd edn)*. Bat Conservation Trust

A bat habitat assessment was made focussing on foraging resources, habitat extent and connectivity and mortality risk factors.

2.3.2 Nesting and other significant use by birds

Early morning bird surveys were undertaken using a combination of slowly walked transects and vantage points, to cover the proposed development site and all accessible areas to approximately 50 metres from the development site boundary. The woodland immediately adjacent to the eastern edge of the proposed development site was viewed from the edge to limit disturbance to birds and to avoid damage to the ground flora. Swarovski 8x32 binoculars were used as aids to visibility.

The surveys as detailed above were supplemented by the use of a single acoustic monitor (Song Meter Mini with stereo microphones) which was deployed towards the centre of the proposed development site over thirteen days.

Determination of breeding status

The breeding status of birds encountered within the survey area were classified in three categories; confirmed, probable and possible breeders, as per guidance in BTO/JNCC/RSPB Breeding Bird Survey documents.

The following surveys were undertaken.

Survey	Date	Surveyors
Transect and vantage point survey	4/4/2023	Pat Waring, Janette Gazzard
Transect and vantage point survey	17/4/2023	Pat Waring, Janette Gazzard

Table 3 – Bird survey dates

A bird habitat assessment was made focussing on foraging resources, habitat extent and connectivity, potential nesting sites and mortality risk factors.

2.3.3 Presence of important habitats and species (including Species and Habitats listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006)

A habitat survey was carried out, whereby the vegetation and habitats of the whole proposed development site and immediate surroundings were surveyed on foot.

Habitats were described in terms of plant species composition and categorised in terms of:

- Phase 1 Habitats (using descriptions in the Phase 1 Habitat Survey Handbook)
- UK Habitat Classification
- Habitats which are listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006

Scientific names follow Stace (4th Edition 2019).

Species

The site and its surroundings were assessed for their potential to support a range of species which are listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 (other than those listed in 2.3.1 above) known to occur in the Lancashire area including;

- Hedgehog *Erinaceus europaeus*
- Brown Hare *Lepus europaeus*
- Common toad *Bufo bufo*

Hedgehog

The general approach complied with that described in:

Creswell, W, J et al (Eds) (2012) *UK BAP Mammals Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation*. The Mammal Society.

A search for hedgehogs, droppings and footprints was made across the proposed development site and its surroundings, followed by an assessment of potential nesting sites and likely availability of feeding resources, including macro invertebrates.

Brown hare

The general approach complied with that described in:

Creswell, W, J et al (Eds) (2012) *UK BAP Mammals Interim Guidance for Survey Methodologies, Impact Assessment and Mitigation*. The Mammal Society.

A search for brown hares was made across the proposed development site and its surroundings, followed by an assessment of potential sheltering sites and likely availability of feeding resources.

Common toad

The general approach complied with that described in:

Sewell, D. et al (2013) *Survey Protocols for the British Herpetofauna*. Amphibian and Reptile Conservation.

A search for common toads was made of accessible parts of the proposed development area and its surroundings. This was followed by an assessment of waterbodies potentially suitable for breeding, potential sheltering sites, and also the likely availability of feeding resources.

A common toad assessment was made focussing on foraging resources, habitat extent and connectivity and mortality risk factors.

2.3.4 Presence of invasive, non-native species

Surveys for invasive, non-native species, including those listed on Section 9 of the Wildlife and Countryside Act (Variation of Schedule 9 Order 2010) were carried out as part of the habitat survey as described above.

3 Description of the survey site

The central point of the proposed development site is SD 65022 44950.

The proposed development site, which is approximately 0.29 hectares in size, lies within the western part of Bowland Wild Boar Park, and comprises a former open field, planted with broadleaved trees approximately 20 years ago.

The proposed development site is bounded by the following features:

North – existing developed area of glamping pods and lodges

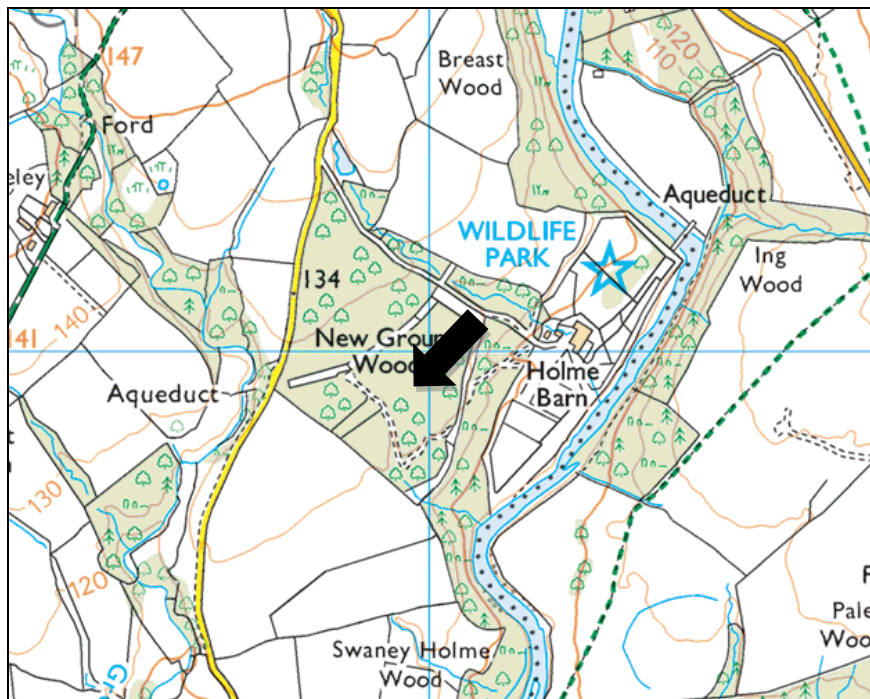
South – broadleaved tree plantation

East – footpath and woodland (Swaney Holme Wood & New Ground Wood Biological Heritage Site)

West – planted tree belt

The proposed development site supports a limited range of habitats which are described below in Section 4.5.

The wider surroundings are dominated by broadleaved woodland, hedgerows, open grassland managed as livestock shelters and as agricultural fields, and the River Hodder. Connecting features in the landscape include ancient broadleaved woodlands, plantation woodlands, tree belts and hedgerows. The proposed development site is unaffected by artificial lighting, other than very limited occasional light spillage onto the north site margin, when adjacent glamping pods and lodges are occupied.



Map 1 - 1:25 000 map of site and context - location shown by black arrow



Image 1 - Aerial view of indicative proposed development site (approximate, indicative boundary marked by white lines). Image date 4/4/2023

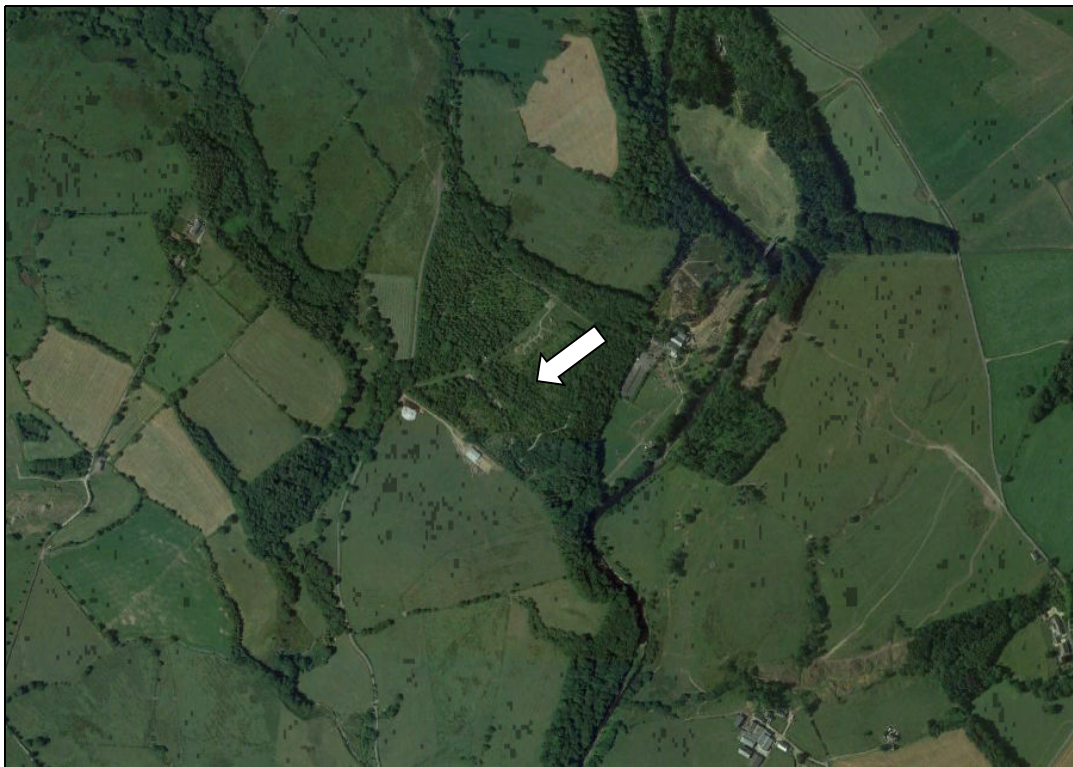


Image 2 - Aerial view of indicative proposed development site (marked with white arrow), showing wider context. Image date 28/6/2018

4 The results of the surveys

4.1 Desk-based survey

4.1.1 Presence of sites and features designated for ecological reasons

The proposed development site lies within the Forest of Bowland Area of Outstanding Natural Beauty.

There are no other statutory sites located within or adjacent to the proposed development site.

The east border of the proposed development site lies adjacent to Swaney Holme Wood & New Ground Wood Biological Heritage Site (BHS). The BHS is also an ancient woodland, included within the Ancient Woodland Inventory for Lancashire.

4.1.2 Presence of protected species and other species of note

No information regarding protected species or other species of note **within** the proposed development site was found during the data search.

The data search shows that the following protected species have been recorded within 1 kilometre of the proposed development site.

Species and status	Date	Location	Source for record
Common pipistrelle bat <i>Pipistrellus pipistrellus</i> flying	Nov and Dec 2018	New Ground Wood	Anabat detector deployed by ESUK
Soprano pipistrelle bat <i>Pipistrellus pygmaeus</i> flying	Nov and Dec 2018	New Ground Wood	Anabat detector deployed by ESUK
Myotis species flying	Nov 2018	New Ground Wood	Anabat detector deployed by ESUK
Soprano pipistrelle bat <i>Pipistrellus pygmaeus</i> roost of 7 animals	Sept 2018	Bat box by River Hodder	ESUK emergence survey
Pipistrelle bat species <i>Pipistrellus</i> sp. 1-6 animals roosting in any single bat box	2017-2023	Bat boxes in Swaney Holme Wood and New Ground Wood	ESUK bat box checks (throughout each year)
Noctule bat <i>Nyctalus noctula</i> flying above woodland	Sept 2018	New Ground Wood	ESUK activity survey

Species and status	Date	Location	Source for record
Daubenton's bat <i>Myotis daubentonii</i> flying over river	August 2018	River Hodder	ESUK activity survey
Brown long eared bat <i>Plecotus auritus</i> single animal in bat box	Sept 2017	Bat box in New Ground Wood	ESUK
Pied Flycatcher <i>Ficedula hypoleuca</i> – male and female	May 2019	New Ground Wood	ESUK surveys
Pied Flycatcher <i>Ficedula hypoleuca</i> – male singing	May 2017	Swaney Holme Wood	ESUK acoustic surveys
Song Thrush <i>Turdus philomelos</i> – male singing	April 2017 May 2019	Swaney Holme Wood	ESUK acoustic surveys
Tawny Owl <i>Strix aluco</i> – male calling	April 2017	Swaney Holme Wood	ESUK acoustic surveys
Blue Tit <i>Cyanistes caeruleus</i> –calling	April 2017	Swaney Holme Wood	ESUK acoustic surveys
Great Tit <i>Parus major</i> - calling	April 2017	Swaney Holme Wood	ESUK acoustic surveys
Eurasian Nuthatch <i>Sitta europaea</i> – male calling	May 2017	Swaney Holme Wood	ESUK acoustic surveys
Wren <i>Troglodytes troglodytes</i> – male singing	May 2017	Swaney Holme Wood	ESUK acoustic surveys
Blackbird <i>Turdus merula</i> – male singing	June 2018	Swaney Holme Wood	ESUK acoustic surveys
Robin <i>Erithacus rubecula</i> – male singing	April 2018	Swaney Holme Wood	ESUK acoustic surveys
Oystercatcher <i>Haematopus ostralegus</i> -breeding pair with 3x chicks	April 2018	Animal shelter within Wild Boar Park riverside enclosure	ESUK surveys

Table 3 – Protected species recorded with 1km of the proposed development site

In addition to the above records, the woodland management plan for Bowland Wild Boar Park contains the following information about birds occurring in woodland adjacent to the proposed development site:

Tawny Owl (at least 1 pair), Great Spotted Woodpecker (at least 1 pair), Wren, Dunnock, Robin, Blackbird, Song Thrush, Blackcap (3+ pairs), Chiffchaff, Willow Warbler (3+ pairs), Goldcrest, Spotted Flycatcher (1 pair), Long-tailed Tit, Treecreeper, Jay and Chaffinch. Marsh Tit has been observed at the feeding station in winter and may breed, but has so far not been observed in summer.

4.2 Field-based surveys

4.2.1 Presence or likely presence of protected species

Amphibians – not including common toad

No newts or common frogs were found during the surveys and there are no amphibian records for the proposed development site.

The proposed development site offers moderate potential sheltering places and refugia suitable for use by newts and common frogs.

There are three ponds within 150 metres of the boundary of the proposed development site. All three ponds lie within livestock enclosures and are heavily degraded. The ponds have negligible potential for use by newts and common frogs. No further surveys of these ponds are required at the current time.

Gulls and pheasants are a further significant limiting factor for newt and common frog survival in the landscape around the proposed development site.

There is no evidence to suggest that newts and common frogs may be present in the proposed development site or its immediate surroundings.

Based on the information available and the habitat assessment, there is **low potential** (= no reasonable likelihood) of newts and common frogs making use of the proposed development site.

Interpretation

- The lack of survey observations of newts and common frogs is not surprising, given the habitat conditions in the wider area, the time of year and the cool weather conditions during the surveys. The likelihood of encountering newts and common frogs over a limited survey period in these circumstances is very low.

- The habitat assessment confirms that whilst the proposed development site offers both foraging resources and connectivity to the wider landscape, there are some significant limiting factors to newts and common frogs surviving in and travelling through the surrounding landscape. As a result, the proposed works will have a low risk of small-scale impact on newts and common frogs and their essential supporting resources.

Reptiles

No reptile species were found during the surveys and there are no reptile records for the proposed development site.

The proposed development site offers moderate potential sheltering places and refugia suitable for use by reptiles.

Gulls and pheasants are a significant limiting factor for reptile survival in the landscape around the proposed development site.

There is no evidence to suggest that reptiles may be present in the proposed development site or its immediate surroundings.

Based on the information available and the habitat assessment, there is **low potential** (= no reasonable likelihood) of reptiles making use of the proposed development site.

Interpretation

- The lack of survey observations of reptiles is not surprising, given the habitat conditions in the wider area, the time of year and the cool weather conditions during the surveys. The likelihood of encountering reptiles over a limited survey period in these circumstances is very low.
- The habitat assessment confirms that whilst the proposed development site offers both foraging resources and connectivity to the wider landscape, there are some significant limiting factors to reptiles surviving in and travelling through the surrounding landscape. As a result, the proposed works will have a low risk of small-scale impact on reptiles and their essential supporting resources.

Badgers

No badgers or signs of badgers were observed during the surveys.

The proposed development site has high potential for use by badgers.

The surroundings to the proposed development site have high potential for use by badgers. The potential is associated with the shelter and foraging opportunities.

Based on the information available and the habitat assessment, there is **high potential** (= a reasonable likelihood) of badgers foraging, excavating setts or otherwise sheltering on the proposed development site. There is **high potential** (= a reasonable likelihood) of badgers using the habitats in the immediate vicinity of the proposed development site for foraging and excavating setts.

Interpretation

- The lack of survey observations of badgers and signs is not surprising, given the condition of the proposed development site. The likelihood of encountering badgers over a limited survey period in these circumstances is very low.
- The habitat assessment confirms that the proposed development site offers resources for badgers. In addition, the fact that it lies within a high value landscape for the species means that the proposed works will inevitably have some risk of impact on either badgers or their essential supporting resources.

Bats

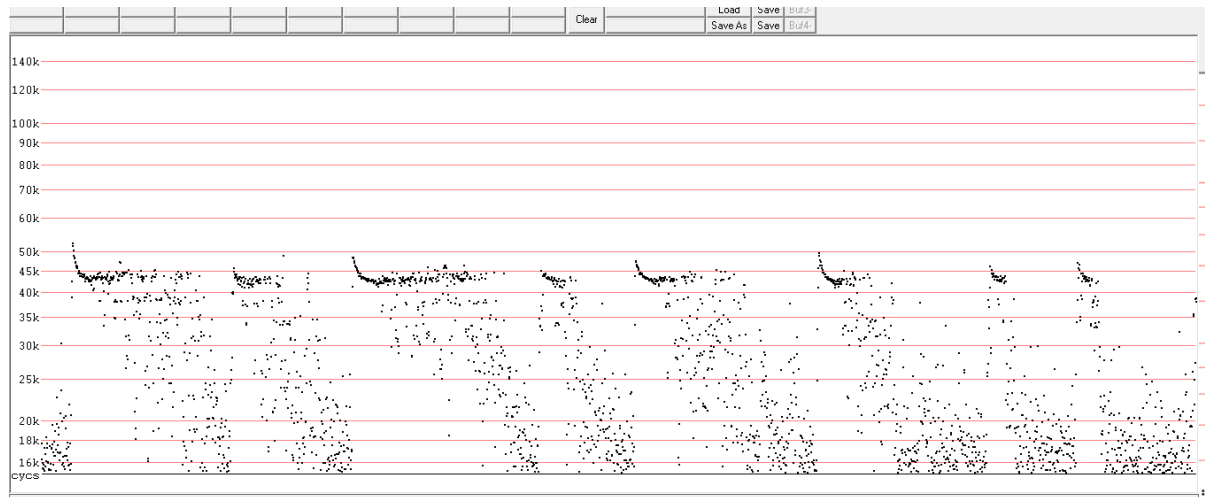
Two bat species were recorded very occasionally during the deployment period of the Anabat Express detector; common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus*.

The trees on and immediately adjacent to the proposed development site do not support potential roost features. A large number of trees in Swaney Holme Wood & New Ground Wood Biological Heritage Site support potential bat roost features.

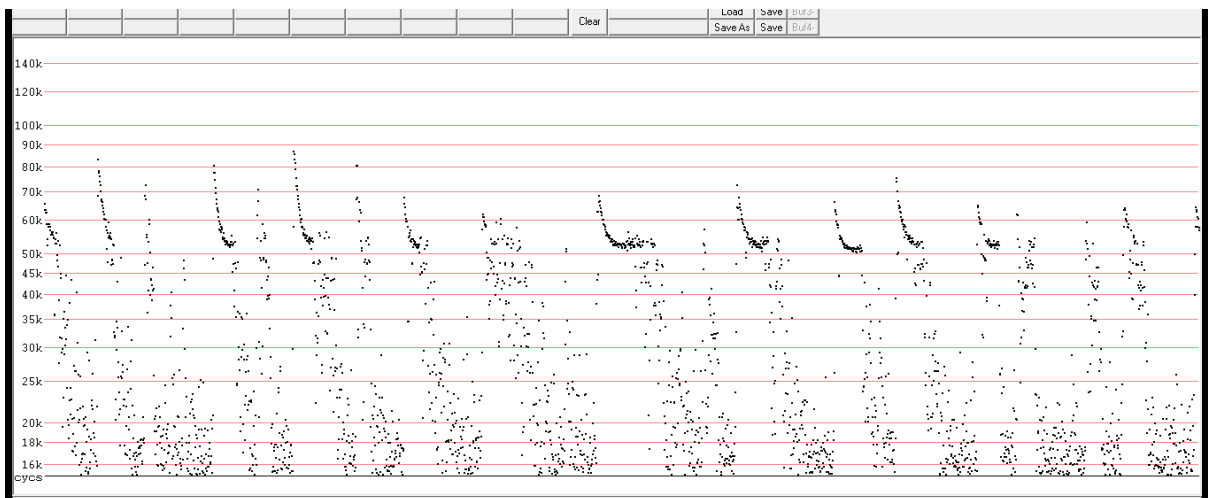
Based on the information available and the habitat assessment, there is **negligible potential** (= no reasonable likelihood) of roosting bats occurring on the proposed development site. There is **high potential** (= a reasonable likelihood) of bats roosting in the woodland to the east. There is **high potential** (= a reasonable likelihood) of bats using the proposed development site and the surrounding landscape for foraging.

Interpretation

- The lack of survey observations of roosting bats and bat signs is not surprising, given the lack of potential roost features on the proposed development site.
- The habitat assessment confirms that the proposed development site offers foraging resources and connectivity to the wider landscape, and that it lies within a high value landscape for foraging bats. As a result, the proposed works will inevitably have some risk of small-scale impact on bats and their essential foraging resources.



Sonogram of common pipistrelle, recorded on Anabat Express 7th April 2023



Sonogram of soprano pipistrelle, recorded on Anabat Express 13th April 2023

4.2.2 Nesting and other significant use by birds

The following bird species were observed visually or acoustically during the 2023 surveys.

Species	Bird life stage, behaviour and maximum number	Location of bird in relation to proposed development site (on-site, 0-50 m, 50-100m, >100 m)
Pheasant <i>Phasianus colchicus</i>	2 adults foraging Possible breeding	On-site
Carrion crow <i>Corvus corone</i>	2 adults perched Low potential for breeding on-site High potential for breeding in adjacent trees	On-site
Moorhen <i>Gallinula chloropus</i>	1 adult walking Negligible potential for breeding on-site High potential for breeding on ponds nearby	On-site
Mallard <i>Anas platyrhynchos</i>	1 adult female leaving nest site Nest with 11 eggs Confirmed breeding	On-site
Robin <i>Erithacus rubecula</i>	1 adult singing Possible breeding	On-site
Oystercatcher <i>Haematopus ostralegus</i>	1 adult overflying and calling Negligible potential for breeding on-site High potential for breeding in livestock enclosures nearby	50-100m
Bullfinch <i>Pyrrhula</i>	Acoustic record Low potential for breeding on-site High potential for breeding in adjacent trees	On-site
Jackdaw <i>Corvus monedula</i>	Acoustic record Low potential for breeding on-site	50-100m
Wren <i>Troglodytes troglodytes</i>	Acoustic record Possible breeding	On-site
Herring gull <i>Larus argentatus</i>	Acoustic record Negligible potential for breeding on-site	50-100m
Curlew <i>Numenius arquata</i>	Acoustic record Negligible potential for breeding on-site	50-100m

Table 5 –Results from bird survey

The woodland in close proximity to the proposed development site is part of a complex of woods (including Ancient Woodlands) in the wider landscape. These woods are recognised for their value in supporting a characteristic bird assemblage. Observations prior to and during 2023 confirmed that a range of bird species are likely to move between the woodland and the proposed development site, for possible breeding and for resting and feeding.

Based on the information available and the habitat assessment, there is **high potential** (= a reasonable likelihood) of nesting birds occurring in planted trees, grassland and hedgerow habitats on the proposed development site. There is also **high potential** for a range of nesting bird species to occur in habitats surrounding the proposed development site.

Based on the information available and the habitat assessment, there is **high potential** (= a reasonable likelihood) of birds foraging and sheltering in planted trees, grassland and hedgerow habitats on the proposed development site outside the nesting season. There is also **high potential** of birds foraging and sheltering in habitats surrounding the proposed development site features outside the nesting season.

Interpretation

- The limited survey observations of birds at the proposed development site is not surprising, given the small size of, and limited habitats occurring on the proposed development site. The likelihood of encountering bird species over a limited survey period in these circumstances is low-moderate.
- The habitat assessment confirms that the proposed development site offers suitable resources for foraging and nesting birds. The fact that it also lies within a high value landscape for a range of bird species means that the proposed works will inevitably have some risk of impact on either nesting birds or their essential supporting resources.

4.2.4 Presence of important habitats and species (including Biodiversity Action Plan (BAP) broad habitats, as well as Species and Habitats listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006)

Species

- Brown hare and common toad were observed during 2023 walkover surveys of the proposed development site.
- The proposed development site offers high potential for use by brown hare and common toad at any time of year.
- The immediate and wider surroundings are also judged to have high potential for use by brown hare and common toad, based on the availability of habitats and feeding resources.

- Based on the information available, there is **high potential** for brown hare and common toad to occur on the proposed development site at any time of year.

No other Species of Principal Importance (S41 NERC Act 2006) were observed within the proposed development area.

- No hedgehogs or signs of hedgehogs were found during the survey.
- The proposed development site offers high potential for use by hedgehogs, based on the availability of sheltering features and the likely availability of feeding resources.
- Based on the information available, there is **high potential** for hedgehogs to occur on the proposed development site at any time of year.

Habitats

Images showing location and extent of habitats are included in the appendices.

Broadleaved Plantation

The whole of the proposed development site has been managed as a broadleaved plantation since tree establishment in 2000, as part of a wider arboretum which comprises stands of both exotic species and native broadleaves. The trees are spaced at original planting distance (2 m – 3m) in a dense sward of neutral grassland. However, many of the trees have failed or exhibit only stunted growth and a substantial area of open grassland is still present. Some of this failure may well be attributed to the high moisture levels in the ground, which was marshy underfoot at the time of the surveys, although no standing water was present.

Tree species present are ash *Fraxinus excelsior*, oak *Quercus sp.*, Mountain ash *Sorbus aucuparia*, Bird cherry *Prunus padus* and willow *Salix sp.* There is no understorey, and although most of the ground flora exhibits no signs of shade-bearing species which would be characteristic of woodland conditions, there are a few plants of native bluebell *Endymion non-scriptus* and extensive growth of creeping soft grass *Holcus mollis*.

Ground cover is dominated by grasses including Yorkshire fog *Holcus lanatus*, creeping soft grass and cocksfoot *Dactylis glomerata* and there is a thick thatch of litter indicating at most only light grazing, particularly in the northern section. Soft rush *Juncus effusus*, nettle *Urtica dioica* and broad-leaved dock *Rumex obtusifolius* are locally dominant, along with bracken *Pteridium aquilinum*. Other species found occasionally to rarely include angelica *Angelica sylvestris*, creeping thistle *Cirsium arvense*, meadow buttercup *Ranunculus acris* and creeping buttercup *Ranunculus repens*.

Biodiversity broad habitat – *Best regarded as broadleaved, mixed and yew woodland*

Habitats which are listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 – *None*

Phase 1 Habitats: *Best regarded as woodland; broadleaved plantation*

UK Habitat Classification – *Mixed woodlands including plantations with <50% conifers (w1h5), neutral grassland (g3c)*

Grassland

As with the grassland still present within the plantation area, this habitat is dominated by grasses including Yorkshire fog, creeping soft grass, meadow foxtail *Alopecurus pratensis*, and cocksfoot and there is a thick thatch of litter indicating at most only light grazing. Soft rush, nettle and broad-leaved dock are locally dominant, along with bracken. Other species found occasionally within damper ground include angelica, marsh thistle and creeping buttercup.

Biodiversity broad habitat – *Neutral grassland*

Habitats which are listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 – *None*

Phase 1 Habitats: *Neutral grassland*

UK Habitat Classification – *Neutral grassland (g3c)*

Hedgerow

A single length of planted hedgerow is established close to the western boundary of the proposed development site. The hedgerow is species-poor and intact and is dominated by hawthorn *Crataegus monogyna* with rare plants of hazel *Corylus avellana*. There is no distinctive ground flora with only occasional plants of goosegrass *Galium aparine* and male fern *Dryopteris filix-mas* being found during the surveys.

A small section of ditch is associated with the hedgerow. Vegetation is dominated by neutral grassland, soft rush and lesser spearwort *Ranunculus flammula*.

Biodiversity broad habitat – *Boundary habitat*

Habitats which are listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 – *Hedgerows*

Phase 1 Habitats - *Intact species-poor hedge*

UK Habitat Classification – *hedgerows (priority habitat) (h2a)*

4.3 Presence of hedges

There is a single, species-poor hedgerow along the north boundary of the proposed development site, as described in 4.2.4 above.

4.4 Presence of invasive, non-native species

No evidence of species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) was found.

Himalayan balsam is occasional to locally abundant in the older, established woodland to the east of the proposed development site.

5 Limitations of the survey

- 5.1** Inevitably with any ecological survey it cannot be guaranteed to detect all species and individuals, and surveys cannot be fully representative of all conditions. In this case it was concluded that the baseline surveys provide a robust data set on which to carry out the assessment. None of the limitations are considered likely to have materially affected the conclusions of this assessment.
- 5.2** Observations were limited to daytime surveys and unmanned, overnight recordings in April 2023. Limiting observations to one month during the early spring does not take account of animal species activity on the site through the year. For example, development of vegetation across the proposed development site will inevitably change the value and potential value of the site for a range of species.
- 5.3** Limiting the survey period to April does not take account of plant growth through the year. It is likely that a number of flowering vascular plant species would not have been evident during the surveys.

6 Advice and recommendations

The basic approach outlined below follows the mitigation hierarchy, avoiding impacts wherever possible, and with compensation as a last resort.

The aim is to ensure that impacts will be minimised as much as possible and restricted to the proposed development site only, avoiding adjacent habitats, in particular those that fall within the Swaney Holme Wood & New Ground Wood Biological Heritage Site.

It is advised that an appropriately experienced Ecologist/Ecological Consultancy should be employed prior to any works commencing, to act as a specialist consultant and an Ecological Clerk of Works (ECoW) for the whole project. The ECoW will need to have specialist experience, knowledge and an appropriate level of skills in relation to a range of ecological receptors, including (but not limited to) amphibians, reptiles, badgers and birds. In addition, the ECoW will need to have experience, knowledge and an appropriate level of skills in relation to toolbox talks, contractor supervision and undertaking compliance audits.

The services required from the ECoW will include (but will not necessarily be limited to):

- Acting as a contact for all ecology-related issues for the proposed development site, to provide continuity throughout the project
- Undertaking site checks at all stages of the proposed development
- Delivery of toolbox talks and other appropriate briefings to site personnel
- Issuing of method statements (where required) for all stages of the development
- Direct supervision of contractors for all ecological aspects, throughout all stages of the development.
- Undertaking of a compliance audit and reporting throughout all stages of the development

6.1 Presence of sites designated for ecological and wider environmental reasons

Ecological Receptor	Issue and rationale	Action
<p>Sites designated for ecological and wider environmental reasons</p>	<p>The proposed development will have an impact on the AONB.</p> <p>The proposed development will potentially have an impact on the adjacent Biological Heritage Site. The BHS lies downhill and immediately adjacent to the proposed development site. There is a risk that activities associated with the development may have a detrimental impact on the BHS.</p> <p>The proposed development site will affect an area of 0.29ha</p>	<p>Advice (mitigation): The proposed development design and extent should take full account of the AONB and where possible, make a positive contribution to the designated area. Prior to and during development.</p> <p>Recommendation (mitigation): The proposed development design should take full account of the adjacent Swaney Holme Wood & New Ground Wood Biological Heritage Site; this is particularly important as regards management of water running off the proposed development site, and other potentially disturbing activities such as vehicle movements. Loss and other damage to the BHS should be avoided at all times. This should be subject to a compliance check by the ECoW. During development.</p> <p>Recommendation (mitigation): The proposed development should minimise disturbance and risk of pollution to the adjacent BHS e.g. by ensuring all materials used by and generated as a result of the development are be stored in such a way as to avoid run-off and other contamination entering the BHS. As a matter of course, all inorganics (cements, oils and other volatiles) should be stored as per the relevant manufacturer's instructions. All organic material should also be stored carefully. All waste products should be separated out and disposed of appropriately, using local facilities where possible, to achieve the maximum level of sustainability. This should be subject to a compliance check by the ECoW. During development.</p> <p>Recommendation (mitigation): At all times, artificial light spillage onto the adjacent BHS should be avoided. This should be subject to a compliance check by the ECoW. During development.</p>

Table 6 – Issues, rationale and actions for designated sites

6.2 Protected species

Ecological Receptor	Issue and rationale	Action
<p>Amphibians (newts and common frog)</p>	<p>There is high potential for amphibians to be present on and immediately around the proposed development site throughout the year.</p> <p>Great crested newts are European protected species. They have full protection under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended).</p> <p>Careful management and avoidance of harm to other amphibian species is generally regarded as a matter of good working practice.</p>	<p>Timing of works (mitigation): It is advised that there are no specific limitations on timing of works in relation to amphibians.</p> <p>Pre-check (mitigation): It is advised that a pre-commencement check of the proposed development site and immediate surroundings should be provided by the ECoW. Prior to any work commencing.</p> <p>Toolbox talk (mitigation): It is advised that all personnel involved in proposed development works should be carefully advised about amphibians by the ECoW, so that all works are undertaken with a clear understanding about legal aspects, precautions to be adopted and what to do if an amphibian is found. Prior to development.</p> <p>Supervision (mitigation): It is advised that all potentially disturbing and damaging activities (as regards amphibians) should be carried out carefully by hand, under the close supervision of the ECoW. This should include cutting of vegetation and careful hand searching immediately prior to any excavations or other ground disturbance. During development</p> <p>Working practices (mitigation): Excavation works required within the development will be covered overnight to prevent amphibians falling in and becoming trapped. Alternatively, a suitable ramp will be provided or the excavation edges battered to allow trapped animals to escape. During development</p> <p>Finding of amphibians (mitigation): It is advised that if any amphibian species is found at any time, work must stop until advice has been sought from the ECoW. If the works will affect these amphibian species, precautionary measures will be required and suitable mitigation put in place. At any time.</p>

Table 7 – Issues, rationale and actions for amphibians

Ecological Receptor	Issue and rationale	Action
Reptiles	<p>There is high potential for reptiles to be present on and immediately around the proposed development site.</p> <p>Under the Wildlife and Countryside Act 1981 (as amended), common lizard, slow worm and adder are protected against intentional or reckless killing and injury</p> <p>Careful management and avoidance of harm to other reptile species is generally regarded as a matter of good working practice.</p>	<p>Timing of works (mitigation): It is advised that there are no specific limitations on timing of works in relation to reptiles.</p> <p>Pre-check (mitigation): It is advised that a pre-commencement check of the proposed development site and immediate surroundings should be provided by the ECoW. Prior to any work commencing.</p> <p>Toolbox talk (mitigation): It is advised that all personnel involved in proposed development works should be carefully advised about reptiles by the ECoW, so that all works are undertaken with a clear understanding about legal aspects, precautions to be adopted and what to do if a reptile is found. Prior to development.</p> <p>Supervision (mitigation): It is advised that all potentially disturbing and damaging activities (as regards reptiles) should be carried out carefully by hand, under the close supervision of the ECoW. This should include cutting of vegetation and careful hand searching immediately prior to any excavations or other ground disturbance. During development</p> <p>Working practices (mitigation): Excavation works required within the development will be covered overnight to prevent reptiles falling in and becoming trapped. Alternatively, a suitable ramp will be provided or the excavation edges battered to allow trapped animals to escape. During development</p> <p>Finding of reptiles (mitigation): It is advised that if any reptile species is found at any time, work must stop until advice has been sought from the ECoW. If the works will affect these reptile species, precautionary measures will be required and suitable mitigation put in place. At any time.</p>

Table 8 – Issues, rationale and actions for reptiles

Ecological Receptor	Issue and rationale	Action
Badger	<p>There is high potential for badgers to be present on and immediately around the proposed development site.</p> <p>Under the Protection of Badgers Act 1992, it is an offence to:</p> <ol style="list-style-type: none"> 1. Wilfully kill, injure, take or attempt to kill, injure or take a badger; 2. Interfere with a badger sett by: <ul style="list-style-type: none"> - damaging a sett or any part thereof; - destroying a sett; - obstructing access to a sett; - disturbing a badger while occupying a sett. <p>The 1992 Act defines a badger sett as: “any structure or place which displays signs indicating current use by a badger”.</p>	<p>Timing of works (mitigation): It is advised that all development works should take place during daylight hours; otherwise, there are no specific limitations on timing of works in relation to foraging badgers.</p> <p>During development</p> <p>Pre-check (mitigation): It is advised that a pre-commencement check of the proposed development site and immediate surroundings should be provided by the ECoW.</p> <p>Prior to any work commencing.</p> <p>Toolbox talk (mitigation): It is advised that all personnel involved in proposed development works should be carefully advised about badgers by the ECoW, so that all works are undertaken with a clear understanding about legal aspects, precautions to be adopted and what to do if a badger is found.</p> <p>Prior to development.</p> <p>Working practices (mitigation): Excavation works required within the development will be covered overnight to prevent badgers falling in and becoming trapped. Alternatively, a suitable ramp will be provided or the excavation edges battered to allow trapped animals to escape.</p> <p>During development</p> <p>Finding of badgers (mitigation): It is advised that if a badger is found at any time, work must stop until advice has been sought from the ECoW. If the works will affect badgers, precautionary measures will be required and suitable mitigation put in place.</p> <p>At any time.</p>

Table 9 – Issues, rationale and actions for badgers

Ecological Receptor	Issue and rationale	Action
Bats (foraging and flying)	<p>There is high potential of bats using the proposed development site and the surrounding landscape for foraging and as a flyway.</p> <p>All bat species are afforded full protection under UK and European legislation, including the Wildlife and Countryside Act 1981 (as amended), the Countryside and Rights of Way Act 2000 and the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019.</p>	<p>Timing of works (mitigation): It is advised that all development works should take place during daylight hours; otherwise, there are no specific limitations on timing of works in relation to foraging and commuting bats.</p> <p>During development</p> <p>Artificial lighting (mitigation): It is recommended that any new lighting associated with the proposed development should comply with: https://www.gov.uk/guidance/light-pollution and Institution of Lighting Professionals and Bat Conservation Trust (2018) <i>Bats and Artificial lighting in the UK; Bats and the Built Environment Series</i>.</p> <p>Specifically, it is recommended that the following mitigation practices are adopted:</p> <ol style="list-style-type: none"> 1. Avoid wherever possible artificial light spillage onto potential bat flyways and foraging features; this includes all habitats. During work and post-development. 2. Ensure that lux levels falling onto bat flyways and foraging features are no greater than 0.5 lux. 0.5 lux is the recommended upper limit of lighting for these features. During work and post-development. 3. Avoid artificial light spillage onto vegetation adjacent to the proposed development site. During work and post-development. 4. Leave bat foraging resources undisturbed as much as possible before, during and after works. At all times. <p>All lighting practices should be subject to a compliance check by the ECoW.</p>

Table 10 – Issues, rationale and actions for bats

6.3 Nesting and other significant use by birds

Ecological Receptor	Issue and rationale	Action
Nesting birds	<p>There is high potential for nesting birds to occur on and immediately adjacent to the proposed development site throughout the nesting season (March to September).</p> <p>Wild birds are protected under The Wildlife & Countryside Act 1981 (as amended). Offences include intentionally:</p> <ol style="list-style-type: none"> 1. Killing, injuring or taking a wild bird. 2. Taking, damaging or destroying the nest of a wild bird while that nest is in use or being built. 3. Taking or destroying an egg of a wild bird. 	<p>Avoidance and pre-checks (mitigation): It is advised that the most appropriate way to address the risk of nesting birds is:</p> <p>Avoid site works during the nesting season Or If works cannot be delayed, all vegetation proposed for disturbance and removal, and land in the surrounding area to at least 30 metres, should be carefully checked, immediately prior to works commencing. Checks should be carried out by the ECoW. If the risk of nesting birds remains, then monitoring for nesting bird activity should continue for the duration of works.</p> <p>Prior to any work commencing (checks) and throughout works in nesting season (monitoring).</p> <p>Toolbox talk (mitigation): It is advised that if works are to be undertaken during the nesting season, all people working at the proposed development site should attend a toolbox talk delivered by the ECoW, to be made aware of the likelihood of encountering nesting birds and how to identify them, the legal protection of nesting birds and their own responsibilities as regards implementation of precautionary measures. Prior to any work commencing.</p> <p>Exclusion areas (mitigation): It is advised that if birds are found to be nesting within or in close proximity to the work area during proposed works, it will be necessary to stop and establish an exclusion area. The extent of the exclusion area, which should be determined by the ECoW, will depend on the bird species and the nature of the proposed works. At all times.</p> <p>Tree planting and bird boxes (restoration and enhancement): It is recommended that locally native tree and shrub species (where possible of local provenance) should be re-established once the development activities are completed. Individual plants should be set at close spacing, to create a dense growth as soon as possible. Species to be used should include alder, bird cherry, guelder rose, willow species, hazel and hawthorn. It is recommended that at least two bird boxes suitable for hole-nesting birds are installed on trees or buildings within the proposed development site. Immediately following development.</p>

Table 11 – Issues, rationale and actions for nesting birds

6.4 Presence of other important habitats and species (including priority habitats and species)

Ecological Receptor	Issue and rationale	Action
<p>European hedgehog, brown hare and common toad</p>	<p>There is high potential for hedgehog, brown hare and common toad to occur on and in the immediate surroundings of the proposed development site.</p> <p>The proposed development site offers suitable foraging and sheltering features for hedgehog, brown hare and common toad.</p>	<p>Timing of works (mitigation): It is advised that there are no specific limitations on timing of works in relation to hedgehog, brown hare and common toad.</p> <p>Pre-check (mitigation): It is advised that a pre-commencement check of the proposed development site and immediate surroundings should be provided by the ECoW. Prior to any work commencing.</p> <p>Toolbox talk (mitigation): All people working at the proposed development site should attend a toolbox talk delivered by the ECoW, to be made aware of the likelihood of encountering hedgehog, brown hare and common toad, how to identify them, the protection afforded to these species as part of the development and their own responsibilities as regards implementation of precautionary measures. Prior to any work commencing.</p> <p>Finding of hedgehog and common toad (mitigation): Any animals encountered should be carefully moved to a safe area of suitable habitat, which should then remain undisturbed. Prior to any work commencing (checks) and throughout works (carefully moving animals).</p> <p>Working practices (mitigation): Excavation works required within the development will be covered overnight to prevent hedgehog, brown hare and common toad falling in and becoming trapped. Alternatively, a suitable ramp will be provided or the excavation edges battered to allow trapped animals to escape. Throughout works</p>

Table 13 – Issues, rationale and actions for other important species

Ecological Receptor	Issue and rationale	Action
Broadleaved plantation, incorporating neutral grassland	The broadleaved plantation and neutral grassland contribute to the AONB and have a potential secondary value in relation to their use by species.	<p>Recommendation (mitigation): Any plan for development and management of the proposed development site should identify habitats to be retained and how these are to be managed to maximise both the landscape and biodiversity benefits of the development. Prior to any work commencing.</p> <p>Recommendation (mitigation): Where possible, retain the broadleaved plantation and neutral grassland; minimise the loss of habitats. At all times.</p> <p>Recommendation (mitigation): Protect retained trees. Storage of materials, equipment and plant should not take place under the ‘dripzone’ of trees (i.e. under their canopy) which are to be retained. Best practice should be followed (i.e. BS5837: 2012 Trees in Relation to Design, Demolition and Construction) to ensure individual trees which are to be retained are not adversely affected. This should be subject to a compliance check by a suitably experienced ecologist/arborist. Before and during development</p> <p>Recommendation (compensation): It is recognised that there is likely to be only limited scope for on-site compensation. It is therefore recommended that the loss of trees and grassland should be offset by one or more of the following:</p> <ul style="list-style-type: none"> • Replacing trees by planting locally native species. The number of trees should be at least equal to that being lost as a result of the proposed development. • Improving management of the adjacent BHS woodland by e.g. by control of invasive, non-native species. • Identifying and undertaking appropriate management to an appropriate area of grassland. <p>During and after development.</p>

Ecological Receptor	Issue and rationale	Action
Hedgerow	<p>The hedge contributes to the AONB and has a potential secondary value in relation to its use by species.</p> <p>Hedges are listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006.</p>	<p>Recommendation (mitigation): Where possible, retain the hedgerow; minimise the loss of habitats. At all times.</p> <p>Recommendation (compensation): Replace any hedgerow to be lost by planting a new hedgerow, comprising locally native species. The length of hedgerow planted should be at least double to that being lost as a result of the proposed development. During and after development.</p>

Table 14 – Issues, rationale and actions for important habitats

6.5 Invasive, non-native species

Ecological Receptor	Issue and rationale	Action
Invasive, non-native species	<p>Himalayan balsam is occasional to locally abundant in the older, established woodland to the east of the proposed development site.</p> <p>The proposed works will involve an amount of disturbance which could result in the spread of Himalayan balsam which is listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).</p> <p>Section 14(2) of the Wildlife and Countryside Act 1981(as amended) prohibits ‘planting’ or ‘causing to grow’ in the wild of any plant listed in Part 2 of Schedule 9.</p>	<p>Advice (mitigation): All people working at the site should be made aware of the legal issues associated with non-native invasive species and their own responsibilities as regards implementation of precautionary measures. Prior to any work commencing.</p> <p>Advice (mitigation): Precautionary measures should include a method statement and work procedures to avoid further spread of the species and contamination of areas on adjacent land as a result of the activities on the proposed work area. At all times</p> <p>Advice (mitigation): Minimise all disturbing activities, disturbance and movement of infected soils at all times and restrict all movements tracking through infected areas with schedule 9 species on foot or with machinery. At all times</p>

Table 15 – Issues, rationale and actions for non-native invasive species

7 References

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Preliminary Ecological Appraisal

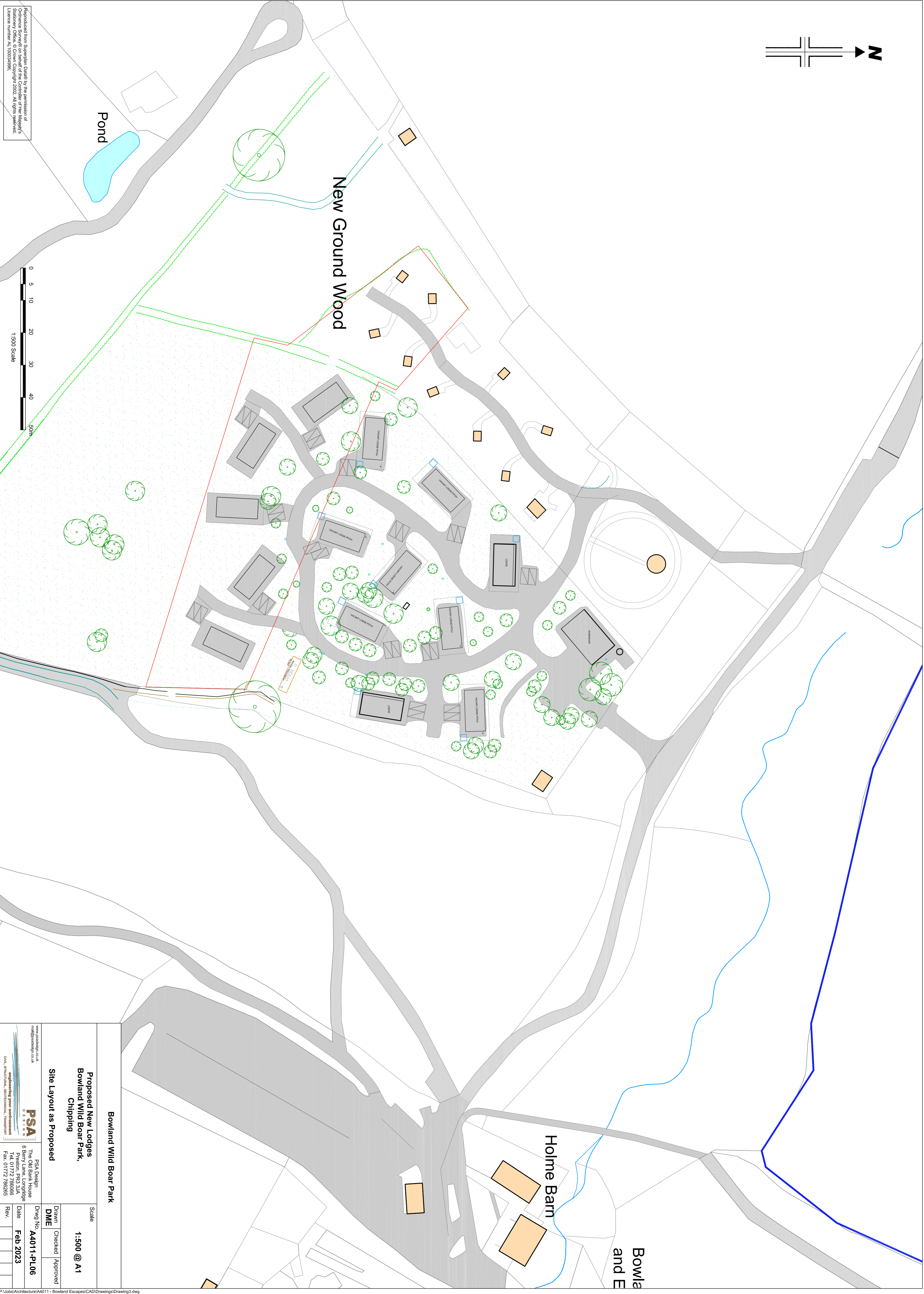
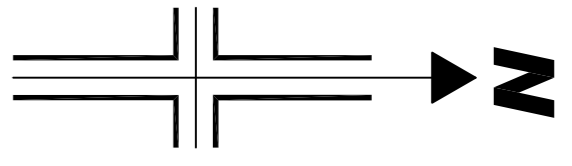
Bowland Wild Boar Park, Chipping, Lancashire

Appendices

App 1 – Site layout plan (A4011-PL06)

App 2 – Habitat and designated sites map

App 3 – Photographs of proposed development area



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0 5 10 20 30 40 50m
1:500 Scale

Bowland Wild Boar Park

**Proposed New Lodges
Bowland Wild Boar Park,
Chipping**

Site Layout as Proposed

Scale
1:500 @ A1

Drawn DME
Checked Approved

Dwg No. **A4011-PL06**

Date **Feb 2023**
Rev

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- Key to Map**
- Biological Heritage Site
 - Existing Lodges
 - Proposed Development Site
 - Plantation Woodland
 - Grassland
 - Hedgerow



Bowland Wild Boar Park

Appendix 2: Habitats and Designated Sites Map

Map compiled 28th April 2023



Photographs of survey area - Bowland Wild Boar Park, Chipping, Lancashire



Aerial image of proposed development site (approximate boundary marked by white lines) showing location in relation to ponds (white arrows). April 2023



Aerial image of proposed development site showing planted trees and extent of grassland beneath. April 2023

Photographs of survey area - Bowland Wild Boar Park, Chipping, Lancashire



West side of proposed development site, showing grassland communities, play area and pathways. April 2023



Lines of planted ash trees above grassland, within proposed development area. April 2023

Photographs of survey area - Bowland Wild Boar Park, Chipping, Lancashire



West side of proposed development site, showing grassland communities and play area. April 2023



Hedgerow to west side of proposed development area. April 2023

Photographs of survey area - Bowland Wild Boar Park, Chipping, Lancashire



**Hedgerow and associated ditch, to west side of proposed development area.
April 2023**



**Pond in livestock enclosure, showing lack of aquatic and emergent vegetation,
along with clear signs of trampling and turbid water. April 2023**

Photographs of survey area - Bowland Wild Boar Park, Chipping, Lancashire



Pond in livestock enclosure, showing locally dominant yellow iris and turbid water. April 2023



Brown hare and pheasant, observed during walkover survey. April 2023

Photographs of survey area - Bowland Wild Boar Park, Chipping, Lancashire



Common toad found during walkover survey. April 2023