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Landscape, Arboricultural & Ecological Solutions
for the Built Environment

Preliminary Ecological Appraisal and Daytime Building Inspection

Jacktrees Road, Cleator Moor, CA25 5BA

Ref: P.1762.22

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(see revision dates below)

Rev	Date	Details

This document contains sensitive information regarding the location of a badger sett. The report is issued in confidence and on the basis that the material will not enter the public domain

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Preliminary Ecological Appraisal and Daytime Building Inspection

Of

Jacktrees Road, Cleator Moor, CA25 5BA

For

Gleeson Homes

15 November 2022

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QA Review & Approval	Ciaran Power – Operations Manager

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EXECUTIVE SUMMARY

A Preliminary Ecological Appraisal and Daytime Building Inspection has been carried out at Jacktrees Road, Cleator Moor, CA25 5BA on 8th November 2022 Liz Kenyon. The assessment comprised a desk study and biological records search, as well as a site walkover survey in order to map habitat types. The survey was extended to assess the potential for protected species to use the site. The assessment provides baseline data as to current site conditions and where appropriate allows recommendations to be made in respect of further potential work in order to satisfy current wildlife legislation.

Assessed against the '*Guidelines for Ecological Impact Assessment in the UK and Ireland*' 2nd edition (2018), the habitats range in ecological value from negligible to within the zone of influence of the site. The habits within the site are likely to be lost within the proposals, however the majority of the boundary features will be retained. As the habitats to be lost to the proposals are small in area and not of high ecological value it is considered that their loss can be mitigated for and the proposals will not adversely affect the ecological value of the wider area, provided the recommendations detailed below are followed.

Bat surveys are conducted in accordance with the Bat Surveys for Professional Ecologists - Good Practice Guidelines, published 2016 (the Guidelines). Strict adherence to these is not necessary, but where practice deviates from them, clear reasons and rationale are required.

The habitats on site comprise predominantly semi improved grassland that has been colonised in areas by tall ruderal species with pockets of rush sp. Scattered trees are present to the site boundaries and to the centre of the site and pockets of bramble scrub are present throughout the site. Agricultural buildings surrounded by hardstanding are present to the west of the site. A section of species poor hedgerow sits to the north of the building and remnant hawthorn hedgerow is present to the north east of the site.

If the recommendations below are followed these species will not be adversely affected by the proposals.

- If works have not begun by November 2023, an updated site visit will be required to assess the habitats and buildings within the site;
- Production and implementation of a badger, hedgehog and rabbit RAMS to avoid any harm to this species during the proposed works;
- Production and implementation of an amphibian RAMS to avoid any harm to this species during the proposed works;
- Production and Implementation of a Construction Environmental Management Plan (CEMP) to ensure the River Ehen (Ennerdale Water to Keekle Confluence) (SSSI) and River Ehen Area of Conservation (SAC) are protected during the construction phase;
- Precautionary check for badger prior to works commencing to assess if badger are using the habitats within the site for shelter;
- Precautionary check for invasive prior to works commencing;
- Enhancing the site for species through appropriate landscape planting that includes native, species rich hedgerows, trees and areas of wildflowers plus provision of integrated bat and bird features within newly constructed buildings;
- Provision of species within the landscaping plans to provide forage and refuge for red squirrel;
- SUDS features to include native planting to enhance the ecology and biodiversity of the proposed site
- Production of the Defra Metric Biodiversity Net Gain Calculations to minimise impacts on biodiversity and provide net gains in biodiversity;
- Production of a Management Plan to ensure the long-term commitments to manage the planting, protection and enhancement of biodiversity in and around a new development site; and
- Vegetation clearance or pruning should be undertaken outside of the nesting bird season (1st March to 31st August Inclusive) to avoid any impact on breeding birds. Or a nesting bird check undertaken by a suitably experienced ecologist should be undertaken immediately prior to works commencing.

The site provides habitat for nesting birds, badger, hedgehog, amphibians, rabbits, red squirrel and bats. Habitats on site will be lost to the proposals. There is likely to be low impacts on the local ecology due to the proposals if the recommendations within section 6 are implemented.

1.0 Introduction

Ascerta has been instructed by Gleeson Homes to carry out a Preliminary Ecological Appraisal and Daytime Building Inspection of Jacktrees Road, Cleator Moor, CA25 5BA (hereafter referred to as the site). The site OS grid reference is NY 01726 14567 and the What3Words reference is sunbeam.beam.tribune. The extent of the site is displayed in photograph 1.1 below.

Photograph 1.1: Extent of site

The site was visited on 8th November 2022 by Liz Kenyon when a Preliminary Ecological Appraisal, which includes an assessment of the potential for protected species to be using the site or surroundings, was carried out in accordance with the *Handbook for Phase 1 Habitat Survey: a Technique for Environmental Audit* (*JNCC, 2010*). The report was prepared following methods detailed in the CIEEM '*Guidelines for Ecological Impact Assessment in the UK and Ireland'* (2018) and '*Guidelines for Ecological Report Writing*' (2017). This report presents the results of the survey including evaluation of habitats on site and potential for protected species to be using the site. The report includes recommendations for further actions where applicable in order to satisfy current wildlife legislation and to achieve our client's objectives. Relevant legislation is detailed within Appendix 4.

The habitats on site comprise predominantly semi improved grassland that has been colonised in areas by tall ruderal species with pockets of rush sp. Scattered trees are present to the site boundaries and to the centre of the site and pockets of bramble scrub are present throughout the site. Agricultural buildings surrounded by hardstanding are present to the west of the site. A section of species poor hedgerow sits to the north of the building and remnant hawthorn hedgerow is present to the north east of the site.

Our client seeks planning consent to redevelop the site for residential dwellings with associated access roads.

2.0 Objectives

Our client's objectives are to assess the potential ecological constraints of the proposed development site.

Our objectives are as follows:

- Identify and evaluate any features of ecological value and the potential of the site to support protected species based on the walkover survey and biological records search;
- Identify designated sites within 2km of the site;
- Review protected species records within 2km of the site;
- Map the habitats within the site using JNCC (2010) methods;
- Provide recommendations for further species-specific surveys and mitigation measures where current legislation requires;
- Provide recommendations that seek to enhance the ecological value of the site;
- Provide recommendations to assist our clients in achieving their objectives whilst satisfying current wildlife legislation.

3.0 Survey Methods

The Preliminary Ecological Appraisal involved the collection and review of data from a desk study and field survey along with assessment of the value of the habitats following CIEEM guidelines.

3.1 Desk Study

A review of the designated sites and habitats within 2km of the site has been undertaken in November 2022 using the Multi-Agency Geographic Information for the Countryside (MAGIC) and the Natural England websites.

A review of UK and Local priority species and habitats known to occur within 2km of the site has been undertaken in November 2022; using the Joint Nature Conservation Committee website, Multi-Agency Geographic Information for the Countryside (MAGIC) and local records from Cumbria Biodiversity Data Centre (CBDC) (Appendix 5).

3.2 Field Survey

A walkover survey of the site was conducted on 8th November 2022 By Liz Kenyon when the habitat types and features of ecological interest were identified and mapped in compliance with the Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit (*JNCC, 2010*). The survey methods involve the recording and mapping of all habitat types and ecological features present on site, including the identification of the main species present and examination of the potential for any protected species. Habitats were mapped and target notes made for any interesting features.

The surveys particularly focused on the following species and habitat features:

- Mammals (badgers, bats and red squirrel);
- Birds;
- Amphibians and reptiles;
- Invertebrates;
- Hedgerows and boundaries;
- Invasive plant species; and
- Plant communities and trees.

Weather conditions during the survey were mild (10ºC), rain showers (8/8 cloud cover) with a F2 (Beaufort Scale) light breeze, therefore appropriate for this type of survey.

3.3 Bat Survey Methods

The survey methods followed the guidelines set out by the Bat Conservation Trust Bat Surveys for Professional Ecologists Good Practice Guidelines – 3rd Edition (2016). Habitats, buildings and trees were assessed for suitability for use by bats and categorised independently using table 4.1 page 35 within the Bat Conservation Trust Guidelines (Collins, 2016).

Preliminary Ecological Appraisal for Bats

Habitats on site were assessed for their suitability for bats to use them for roosting, commuting and foraging both on the site and surrounding area. Commuting and foraging habitat suitability was categorised **low** to **high**. Commuting and foraging habitat valued as **moderate** or above may need further survey effort if lost to the proposals.

Preliminary Roost Assessment Trees

All trees were inspected for Potential Roost Features (PRFs). Features searched for included: Natural or woodpecker holes, cracks/splits in major limbs, loose bark, hollows/cavities, dense epicormic growth, bird and bat boxes. Where such features were found they were investigated for scratches or staining, bat droppings and smoothing of surfaces around entry points. Trees assigned a suitability of **moderate** or above may require further inspection if they are to be lost to the development.

External Inspection of the Building

A daytime internal and external inspection of the buildings was carried out during the survey by a suitably experienced bat ecologist. The buildings were searched externally looking for signs of bats, including staining on barge boards, soffits and more commonly droppings on flat surfaces i.e. window ledges that would indicate potential roosting sites. Possible bat access points such as loose tiles, cracks and crevices or crawl spaces beneath and/or behind roofing materials such as roofing felt, panelling, soffits and tiles were identified and checked for signs of use by bats, for example droppings, scratch marks and staining. Add to limitations that droppings etc less likely in hibernation/less active months if daytime survey carried out in Oct – March

The building was categorised as per Table 4.1 (below). Buildings assigned a suitability of **Low** or above may require further inspection if they are to be lost to the development.

Table 4.1: Guidelines for assessing Potential Roost Features (PRFs), commuting and foraging habitat within a proposed development site. Guidelines taken from table 4.1 page 35 of the Bat Conservation Trust Bat Surveys for Professional Ecologists Good Practice Guidelines – 3rd Edition (2016).

Suitability	Roosting Habitats	Commuting and Foraging Habitats
Negligible	*Negligible habitat features on site likely to be used by roosting bats.*	*Negligible habitat features on site likely to be used by commuting or foraging bats.*
Low	*A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions [a] and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation [b]).* *A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential. [c]*	*Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.* *Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.*
Moderate	*A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions[a] and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).*	*Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.* *Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.*
High	*A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions [a] and surrounding habitat.*	*Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.* *High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.* *Site is close to and connected to known roosts.*

[a] For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

[b] Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten et al., 2015). This phenomenon requires some research in the UK but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in large buildings in highly urbanised environments.

[c] This system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI,2015).

3.4 Badger Survey Methods

The site was searched for setts and badger field signs including foraging areas, latrines and tracks. Attention was paid to the presence of the following field signs:

- Setts: single holes or a series of holes likely to be interconnected underground;
- Latrines: badgers usually deposit faeces in excavated pits;
- Paths and footprints;
- Scratching posts: at the base of trees;
- Snuffle holes: areas where badgers have searched for insects;
- Day nest: bundles of vegetation where badgers may sleep above ground; and
- Traces of hair.

3.5 Evaluation

Habitats and species on the site were evaluated following the '*Guidelines for Ecological Impact Assessment in the UK and Ireland*' 2018. A geographical frame of reference is assigned to each habitat and species, with International Value being most important, then National, Regional, County, District, Local and lastly, within the immediate Zone of Influence (ZoI) of the proposals only.

Value judgements are based on characteristics that can be used to identify ecological resources or features likely to be important in terms of biodiversity. These include site designations such as SSSIs. For undesignated features, the size, conservation status (locally, nationally or internationally), and the quality of the ecological resource are considered. Ecological resource quality can refer to habitats (for instance if they are particularly diverse, or a good example of a specific habitat type), other features (such as wildlife corridors or mosaics of habitats) or species populations or assemblages.

The recommendations detailed within this report aim to meet requirements of the Environment Act and Biodiversity Metric 3.1 as far as possible at this stage.

3.6 Limitations

The site visit was undertaken in November. Although this is within the sub-optimal time of year for phase 1 habitat surveys, sufficient vegetation was present to enable habitat identification. It is not considered a limit to the conclusions of the report based on the habitats found within the site and the works proposed.

The absence of biological records does not necessarily mean the absence of species. This has been taken into account within the report conclusions.

The site was visited on only one occasion. This produces a snapshot of habitats and species on the site and others may be present at different times of the day or year. This limitation has been taken into account within this report.

4.0 Survey Results

4.1 Desk Study

Two statutory sites were identified within a 2km radius of the proposed development site and five non-statutory sites such as Sites of Biological Importance (SBI) /Local Wildlife Sites (LWS) were identified within a 2km radius the proposed development site.

The following statutory sites were identified within the vicinity of the proposals (with approximate distance and direction from the site):

- River Ehen (Ennerdale Water to Keekle Confluence) Site of Special Scientific Interest (SSSI) 540m south east; and
- River Ehen, Area of Conservation (SAC) 750m south east.

The following non-statutory sites were identified within the vicinity of the proposals (with distance and direction from the site):

- Rheda South Park County Wildlife Sites (CWS) 1.6km north;
- Keekle River (CWS) 1.5km north west;
- Parkside Pond (CWS) 1.6km north east;
- Birkhouse Pond (CWS) 1.4km north east; and
- Longlands Lake (CWS) 1.4km south.

Blackhow Wood, Ancient Woodland lies approximately 1.2km south of the site.

The site lies within a Natural England SSSI Impact Risk Zone and for developments with more than 100 units a consultation with Natural England will be triggered.

Following a review of records held by CBDC, several priority species that have the potential to occur within the vicinity of the proposed development have been identified. These include birds, bats, badger, hedgehog and amphibians. The species records are summarised below, and the detailed records held by CBDC within 2km of the site are displayed within Appendix 5.

Birds

Two thousand five hundred and fifty-three records of birds were returned within the data search. Species present include buzzard, kestrel, kingfisher swift and goldfinch. All species recorded within 2km are displayed within Appendix 5. The most recent records are for bullfinch, great tit, and house sparrow dating from 2013.

Bats

Thirty-four records for bats were retuned within 2km of the site. Species present include bat species, myotis bat, daubentons, whiskered bat, noctule, pipistrelle species, common pipistrelle and soprano pipistrelle. The most recent records date from May 2018 for myotis, common pipistrelle and soprano pipistrelle approximately 2km north east of the site.

Amphibians

Three records of palmate newt and two smooth newt were returned. The most recent record is for smooth and palmate newt located approximately 1.3km west of the site.

Reptiles

One historical record dated from 1988 for common lizard was returned approximately 2km south west of the site.

Terrestrial mammals

One hundred and ninety six records for terrestrial mammal were returned within the search area. Species include Eurasian red squirrel, Eastern Grey Squirrel, European Rabbit, west European hedgehog, American mink, Eurasian otter, red deer and roe deer. The most recent record is for Eurasian otter approximately 1.2km north of the site.

No European Protected Species Licence (EPSL) applications within 2km of the site since 2016 were identified using Magic Maps.

A list of key habitats is shown in table 5.1 below and a summary description of key habitats within the site is provided in Section 5.2. Notes on the presence or potential presence of protected species are provided in Section 5.3. The Phase 1 Habitat map can be found in Appendix 1. The Target Notes (TN) and lists of species recorded during survey are presented in Appendix 2.

4.2 Habitat Survey

The site lies to the south of Cleator Moor and is bound by Cleator Gate to the eastern boundary with residential dwellings to the north and agricultural land use beyond. The River Ehen (SSSI, SAC) flows approximately 500m south east of the site. The habitats on site comprise predominantly semi improved grassland that has been colonised in areas by tall ruderal species with pockets of rush sp. Scattered trees are present to the site boundaries and to the centre of the site and pockets of bramble scrub are present throughout the site. Agricultural buildings surrounded by hardstanding are present to the west of the site. A section of species poor hedgerow sits to the north of the building and remnant hawthorn hedgerow is present to the north east of the site.

The habitat types identified within the site are detailed below and are displayed on drawing P.1762.22.01 *Phase One Habitat Survey* in Appendix 1 and on Photographs within Appendix 3. Species lists and target notes are displayed in Appendix 2.

Hard standing (J4)

Hardstanding (concrete) is present to the west of the site and forms the access to the buildings from Cleator Gate and surrounds the buildings. A short hardstanding track runs east from the buildings into the adjacent field. This habitat is displayed in photograph 1 within Appendix 3.

Buildings (J3.6)

Four agricultural buildings are present within the site. The buildings are a mixture of concrete block and corrugated sheeted metal construction that are predominantly open fronted and have previously been used to house livestock. A small wooden shed (TN1) is also present to the north of the main buildings. The buildings are detailed within section 4.3 below. The buildings are displayed within photographs 2-7 within Appendix 3.

Dense/continuous scrub (A2.1)

Pockets of dense bramble scrub is present to the margins of the fields to the east of the site and within the tree lines that mark the field boundaries.

Scattered trees (A3.1)

Scattered trees line the eastern site boundary with of trees present to the centre of the site. Scattered trees are also present to the northern site boundary to the rear of Carron Cottage. Species present include Ash, Hawthorn, Alder, Field Maple, Silver Birch, Cherry, Sycamore and Oak. This habitat is displayed in Photographs 9 & 10 within Appendix 3.

Semi-improved grassland (B6)

The site is predominantly semi-improved grassland, species present include Yorkshire fog, ragwort, red fescue and perennial ryegrass. The sward height is approximately 15-20cm with a thick thatch and areas of rush sp. present throughout. To the east of the site the grassland has become encroached by creeping thistle and tall ruderal species. This habitat is displayed in photographs 8 & 12 within Appendix 3.

Species Poor Hedge (J2.1.2)

A leyland cypress hedge is present to the north of the buildings and a section of remnant hawthorn hedgerow is present within the north eastern sector of the site. This habitat is displayed in photograph 11 within Appendix 3.

Tall ruderal vegetation (C3.1)

Tall ruderal vegetation has began to colonise with the east of the site, species present include, creeping thistle, broad leaf dock and ragwort.

4.3 Preliminary bat roost assessment of buildings

Building 1-

Building B1 comprises single story, open fronted structure constructed from corrugated metal sheeting with concrete block and metal beam supports. The roof is sloped and constructed from corrugated metal sheeting with a section of flat roofing also. Wooded facias are present to the section of flat roof. The building has been previously used to house life stock and holding pens are present to the east of the building.

The building was assessed to have **negligible** hibernation potential for crevice and void dwelling bats and **low** potential for day and maternity roosts for crevice dwelling bats and **negligible** potential for void dwelling bats. Overall, the building is classified as having **negligible** bat roosting potential.

Building 2 –

Building B2 comprises single story open fronted structure constructed from corrugated metal sheeting with concrete block and metal beam supports. The roof is sloped and constructed from corrugated metal sheeting. The building has been previously used to house livestock.

The building was assessed to have **negligible** hibernation potential for crevice and void dwelling bats and **low** potential for day and maternity roosts for crevice dwelling bats and **negligible** potential for void dwelling bats. Overall, the building is classified as having **negligible** bat roosting potential.

Building 3 –

Building 3 comprises single story structure constructed from corrugated metal sheeting with metal beam supports. The roof is sloped and constructed from corrugated metal sheeting with wooded facias to the front and rear elevations. A metal gate is also present to the front elevation of the building. Large opening and gaps are present within the building, exposing the internal area of the building. The building has been previously used to house livestock.

The building was assessed to have **negligible** hibernation potential for crevice and void dwelling bats and **low** potential for day and maternity roosts for crevice dwelling bats and **negligible** potential for void dwelling bats. Overall, the building is classified as having **negligible** bat roosting potential.

Building 4 –

Building 4 Comprises a single-story structure constructed of concrete blocks with an open section of the north with a five-bar metal gate for access and wooden cladding. The roof is constructed from a mixture of corrugated metal and asbestos sheeting with missing roofing noted. Small wooden door that are open are present to the south of the building, the building has been previously used to house livestock.

The building was assessed to have **negligible** hibernation potential for crevice and void dwelling bats and **low** potential for day and maternity roosts for crevice dwelling bats and **negligible** potential for void dwelling bats. Overall, the building is classified as having **negligible** bat roosting potential.

4.4 Protected and Notable Species

Birds

The habitats within the site provide suitable foraging and nesting opportunities for bird species. These habitats include scrub, semi-improved grassland, species poor hedgerow, scattered trees and buildings. During the survey, corvid species and blackbirds were noted within the site.

The site provides no habitat for kingfisher and the semi-improved grassland provides some limited hunting habitat for kestrel and buzzard, however this is limited due to the thick thatch that is present. These species do not require further consideration within this planning application and will not be discussed further within this report.

Bats

The buildings on site offer **negligible** potential to support bat roosts as detailed above in section 4.3. Evidence of bats was not identified within the site during the survey. The trees within the site were assessed to provide negligible to low potential to support roosting bats.

The scrub, species poor hedgerow, semi-improved grassland and scattered trees within the site provide good suitability for commuting and foraging bats, with connectivity to the surrounding land use.

Badger and other small mammals

The scrub habitat and semi improved grassland within the site provide limited foraging and shelter habitat for badger, European rabbit, red deer, roe deer and other small mammal species such as hedgehog. No evidence of badger, European rabbit, red deer, roe deer or hedgehog was identified within the site during the survey.

The scattered trees that line the site boundaries provide a tree canopy that allows red and grey squirrel to move throughout the area and connect to the wider environment, the scattered trees also provide some connectivity for squirrel to the surrounding habitat.

Amphibians

No ponds are present within the site and no other ponds are present within 250m of the site as mapped on Magic Maps. The habitats within the site (semi-improved grassland, bramble scrub and species poor hedgerow) provide terrestrial habitats for amphibians.

Reptiles

The habitats within the site do not offer suitability to support reptiles. Ecotones are not present within the site and the habitats are scattered across the site with no suitable connectivity. Reptiles do not require further consideration within this planning application and will not be discussed further within this report.

Invasive species

No non-native invasive species were identified within the site during the walkover survey.

5.0 Evaluation and Recommendations

5.1 Designated Sites and Habitats

There are no statutory or non-statutory protected sites within the vicinity of the proposals that are likely to be influenced by the proposals. The River Ehen (Ennerdale Water to Keekle Confluence) (SSSIs) lies 540m south east of the site and River Ehen Area of Conservation (SAC) lies 750m south east of the site also. The watercourses may be impacted during the construction phase from onsite activity such as dust and debris. It is recommended that Construction Environmental Management Plan (CEMP) is implemented to ensure the areas are protected during the construction phase.

The site lies within a Natural England SSSI Impact Risk Zone and for developments with more than 100 units a consultation with Natural England will be triggered.

The habitats on site comprise hardstanding, buildings, semi improved grassland, scrub, tall ruderal vegetation, scattered trees and species poor hedgerow. These habitats are considered to have an ecological value of **within the zone of influence** of the site or lower. The site contains no designated or priority habitats. Overall, the proposals are unlikely to adversely affect the ecological value of the area.

The production of the Defra Metric Biodiversity Net Gain Calculations is recommended to minimise impacts of biodiversity and provide net gains in biodiversity and the production of a Management Plan to ensure the long-term commitments to manage the planting, protection and enhancement of biodiversity in and around the new development site.

5.2 Protected and Notable Species

Birds

The scrub, semi-improved grassland, species poor hedgerow, scattered trees and buildings provide suitable habitat for nesting and foraging bird species. It is recommended that vegetation clearance should be undertaken outside of the nesting bird season (1st March to 31st August Inclusive) to avoid any impact on breeding birds. If vegetation clearance cannot be undertaken outside of the breeding bird season, a nesting bird check undertaken by a suitably experienced ecologist should be undertaken immediately prior to works commencing. If an active birds' nest is identified a suitable buffer zone should be implemented where no works are to occur within until the young have fledged the nest.

Bats

The habitats on site provide **low** suitability for commuting and foraging bats and the majority of the boundary features will be retained within the proposals allowing bats to continue to use the area for forage and connectivity. The trees within the site were assessed to provide **negligible -low** potential for roosting bats and the buildings on site were assessed to provide **negligible** potential for bats.

The buildings will be demolished to accommodate the proposals within the site and will require no further surveys for bats. However, if works have not commenced by November 2023, a further daytime inspection will be required the assess the suitability of the buildings to support roosting bats and nocturnal surveys (between May and September) may be required.

The habitats on site provide **low** suitability for commuting and foraging bats and the majority of scattered trees and boundary features will be retained within the proposals to allow bats to continue to use the site for forage and commuting throughout the works. The trees within the site have been assessed to provide **negligible to low** potential to support roosting bats. The trees that will be lost to provide the access route to the proposed development and trees to the north east of the site that will be lost have been assessed to provide **negligible** bat roost potential as they are too young to have developed features suitable to support roosting bats.

Badger and other small mammals

The site provides limited habitat for badger, rabbit and hedgehog within the scrub and semi-improved grassland. These habitats are likely to be impacted by the proposals and therefore, it is recommended that a Hedgehog, badger and rabbit Reasonable Avoidance Measures (RAMS) Method Statement is implemented during the works to avoid harm to this species. The RAMS should include:

- Vegetation clearance applies to all habitats cleared in daytime air temperatures above 5°C.
- Works must be avoided in cold temperatures or if prior overnight temperatures have been less than 1°C;
- The cut material is to be chipped and placed in discrete piles outside the working areas or removed from the site;
- Existing tracks should be utilised for vehicle movements where possible;
- Throughout the works all trenches must be covered at night or ramps provided to prevent badger, mammals and hedgehog from getting stuck. Large pipes must also be covered to prevent badger access and risk of these species getting stuck; and
- Construction material will be stored on pallets to avoid creating habitat for hedgehog, badger mammals and rabbit.

To enable hedgehog continued use of the site it is advised that gaps of at least 13cm by 13cm are left under any new garden fences to enable hedgehog to roam freely within the area following development. To mitigate for the loss of habitat that could be used by hibernating hedgehog, it is recommended that a hedgehog hibernaculum is provided within the landscaping.

As badger are a mobile species is it recommended an updated badger check of suitable habitats (scrub and semi-improved grassland) is undertaken prior to works commencing within the site to avoid harm to badger that may have moved into the habitats within the site.

Red squirrel

Records for red squirrel were retuned within 2km of the site. The scattered trees provide limited habitat for red squirrel due to the fragmentation of the canopies. It is recommended that the site is enhanced for red squirrel with appropriate planting to provide a buffer zone and increase connectivity to the surrounding land use.

Suitable tree species for red squirrel include:

- Scots pine (Pinus sylvestris);
- Willow (Salix spp.);
- Rowan (Sorbus aucuparia);
- Birch (Betula pendula or B. pubescens);
- Hawthorn (Crataegus monogyna);
- Blackthorn (Prunus spinosa);
- Alder (Alnus glutinosa); and
- Holly (Ilex aquifolium).

Invasive species

No non-native invasive species were identified during the walkover survey. As invasive species can colonise very quickly it is recommended that an updated check invasive species check is undertaken prior to the start of works.

Amphibians

The terrestrial habitats do provide refuge areas and connectivity corridors for amphibians; however, this is limited due to the agricultural use of the site and it is prone to regular disturbance. These habitats are likely to be impacted by the proposals and therefore, it is recommended for the areas to be lost that an Amphibian Reasonable Avoidance Measures (RAMS) Methods should be implemented during the works to avoid harm to this species. The RAMS should include:

- Vegetation clearance applies to all habitats cleared in daytime air temperatures above 5°C.
- Works must be avoided in cold temperatures or if prior overnight temperatures have been less than 1°C;
- The cut material is to be chipped and placed in discrete piles outside the working areas or removed from the site;
- Existing tracks should be utilised for vehicle movements where possible;
- Throughout the works all trenches must be covered at night or ramps provided to prevent amphibians from getting stuck;
- Construction material will be stored on pallets to avoid creating habitat for amphibians.

5.3 Enhancements

In order to meet requirements for biodiversity protection and enhancement outlined within the NPPF, it is recommended that ecological enhancements are included. These could include:

1. Provision of fifteen bird boxes (25mm and 32mm entrance hole box, house sparrow terrace, swift box), attached to or integrated within new buildings or attached to retained trees on site;
2. Provision of twelve bat features (e.g. Vivara Pro WoodStone Bat box or similar) attached to a retained tree on site or provision of a bat box (e.g. Vivara bat bricks or '*bird brick houses*' bat boxes) integrated within new buildings;
3. Suitable landscaping incorporating species that provide a food or shelter resource to wildlife to include hawthorn, hazel, holly, blackthorn, field maple, dog rose and honeysuckle as hedgerow species and oak, alder, field maple, silver birch, crab apple, rowan and bird cherry as tree species together with implementing a relaxed mowing regime and establishing wildflowers in these areas;
4. Suitable landscaping to provide refuge, forage and connectivity for red squirrels, incorporating species to include scots pine, willow, rowan, birch, hawthorn, blackthorn, alder and holly.

6.0 Conclusions

The site was subject to an extended phase one habitat survey and a preliminary bat roost assessment of all buildings. During the survey and following review of historical species records, it is considered that an impact on birds, bats, badger, red squirrel, hedgehog, amphibians, rabbit and hedgehog are likely to occur in relation to the proposals for the site. The following recommendations have been made to avoid an impact on these species:

- If works have not begun by November 2023, an updated site visit will be required to assess the habitats and buildings within the site;
- Production and implementation of a badger, hedgehog and rabbit RAMS to avoid any harm to this species during the proposed works;
- Production and implementation of an amphibian RAMS to avoid any harm to this species during the proposed works;
- Production and Implementation of a Construction Environmental Management Plan (CEMP) to ensure the River Ehen (Ennerdale Water to Keekle Confluence) (SSSI) and River Ehen Area of Conservation (SAC) are protected during the construction phase;
- Precautionary check for badger prior to works commencing to assess if badger are using the habitats within the site for shelter;
- Precautionary check for invasive prior to works commencing;
- Enhancing the site for species through appropriate landscape planting that includes native, species rich hedgerows, trees and areas of wildflowers plus provision of integrated bat and bird features within newly constructed buildings;
- Provision of species within the landscaping plans to provide forage and refuge for red squirrel;
- SUDS features to include native planting to enhance the ecology and biodiversity of the proposed site
- Production of the Defra Metric Biodiversity Net Gain Calculations to minimise impacts on biodiversity and provide net gains in biodiversity;
- Production of a Management Plan to ensure the long-term commitments to manage the planting, protection and enhancement of biodiversity in and around a new development site; and
- Vegetation clearance or pruning should be undertaken outside of the nesting bird season (1st March to 31st August Inclusive) to avoid any impact on breeding birds. Or a nesting bird check undertaken by a suitably experienced ecologist should be undertaken immediately prior to works commencing.

It is considered that there would be very limited impacts on the local ecology as a result of the proposals, provided the recommendations detailed within section 5.0 above are followed.

7.0 References

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Appendix 1

KEY

- Survey area
- Building (J3.6)
- Hardstanding (J4)
- SI Semi improved grassland (B6)
- Tall ruderal vegetation (C3.1)
- Species poor hedgerow (J2.1.2)
- Bramble scrub (A2.1)
- Areas of rush
- Scattered trees (A3.1)
- Target note

DO NOT SCALE.
ALL COORDINATES RELATED TO LOCAL GRID.
LOCATED TO NG BY BEST FIT TO DETAI.
EXTRACTED FROM OS DIGITAL DATA.

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CLIENT: Gleeson Homes

PROJECT: Jacktrees Road

DRAWING TITLE: Phase One Habitat Survey

SCALE:	DRAWN BY:	DRAWING No:
NTS@A3	LK	P.1762.22.01
DATE:	CHKD BY:	REV:
14/11/2022	CP	-

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Appendix 2

Species Lists and Target Notes

Table 1: Flora Species

English Name	Scientific Name
Alder	*Alnus glutinosa*
Ash	*Fraxinus excelsior*
Bramble	*Rubus fruticosus agg*
Broadleaved dock	*Rumex obtusifolius*
Cherry	*Prunus sp.*
Cock's-foot	*Dactylis glomerata*
Common daisy	*Bellis perennis*
Compact rush	*Juncus conglomeratus*
Creeping bent-grass	*Agrostis stolonifera*
Creeping buttercup	*Ranunculus repens*
Creeping thistle	*Cirsium arvense*
Crested dog's-tail	*Cynosurus cristatus*
Cypress	*Cupressus sp.*
Dandelion	*Taraxacum officinale*
Field maple	*Acer campestre*
Hawthorn	*Crataegus monogyna*
Herb robert	*Geranium robertianum*
Leyland cyprus	*Cupressus × leylandii*
Meadow grass	*Poa sp.*
Oak	*Quercus robur*
Perennial ryegrass	*Lolium perenne*
Ragwort	*Senecio jacobaea / Jacobaea vulgaris*
Red fescue	*Festuca rubra*
Silver birch	*Betula pendula*
Soft rush	*Juncus effusus*
Stinging nettle	*Urtica dioica*
Sycamore	*Acer pseudoplatanus*
Tufted hair grass	*Deschampsia cespitosa*
Yorkshire fog	*Holcus lanatus*

Table 2: Target Notes

Target Note Number	Description
TN1	Location of wooden structure

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Appendix 3

Photographs

Table 3: Photographs of the site

	
Photograph 1: Concrete hardstanding adjacent to the buildings.	Photograph 2: Building B1
	
Photograph 3: Building B1	Photograph 4: Building B2
	
Photograph 5: Building B3	Photograph 6: Building B4

	
Photograph 7: Building B4	Photograph 8: Semi improved grassland
	
Photograph 9: Scattered trees	Photograph 10: Scattered trees to the eastern site boundary
	
Photograph 11: Species poor hedgerow	Photograph 12: semi improved grassland

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Appendix 4

Relevant Legislation

European Legislation

The following Directives have been adopted by the European Union and provide protection for fauna and flora species of European importance and the habitats which support them:

- Directive 2009/147/EC on the Conservation of Wild Birds (Birds Directive);
- Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (Habitats Directive).

UK Legislation

The Habitats Directive has been transposed into national legislation through the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 (The Habitats Regulations). This provides for the designation and protection of 'European Sites' (SPAs, SACs and Ramsar Sites, including proposed or potential European Sites) and the protection of 'European Protected Species'.

The key UK legislation relating to nature conservation is the Wildlife and Countryside Act 1981 (as amended) (W&C Act). This Act is supplemented, *inter alia*, by provision in the Countryside and Rights of Way (CRoW) Act 2000, and the Natural Environment and Rural Communities Act 2006 (NERC Act). Additional species and habitat specific UK legislation includes the Protection of Badgers Act 1992 and the Hedgerow Regulations 1997.

The Environment Act sets out how the UK will maintain environmental standards following leaving of the EU. The Bill builds on the vision of the 25 Year Environment Plan, with the ambition from the government to leave the environment in a better state than it was when inherited.

The Defra Biodiversity Metric is being implemented to work alongside the Environment Act. This tool calculates potential biodiversity impacts as a result of development and identifies mitigation and compensation requirements to ensure no net loss of biodiversity. In addition, it identifies measures that can be implemented in order to meet Biodiversity gain as a result of development. Defra released a beta version of the biodiversity metric in July 2019, with the most recent revision in April 2022. This metric is likely to be the default metric used by councils, with the most recent version to be submitted to support a planning application.

The National Planning Policy Framework (NPPF) 2021 has been published to provide further planning guidance. Wildlife, biodiversity and ecological networks are referred to in Section 15 '*Conserving and enhancing the natural environment*'. The NPPF states that the planning system should contribute to and enhance the natural and local environment by: recognising the wider benefits of ecosystem services, minimising impacts on biodiversity and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures. Further guidance is provided within Government Circular *06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact Within the Planning System*.

Species and Habitats of Principal Importance

Species and Habitats of Principal Importance are listed under section 41 of the NERC Act and are a material consideration in planning decisions. Planners require relevant, up to date information from ecological surveys in order to assess the effects of a proposed development on biodiversity as Councils have a statutory obligation under section 40 of the NERC Act to consider biodiversity conservation in the determination of planning applications.

Background information about the lists of priority habitats and species (Species and Habitats of Principal Importance) can be found within the UK Biodiversity Action Plan (UK BAP). Although this has been succeeded by the '*UK Post-2010 Biodiversity Framework*', many of UK BAP tools are still relevant. BAPs identify habitats and species of nature conservation priority on a UK (UK BAP) and Local (LBAP) scale. Most BAP priority habitats and species have Habitat Action Plans (HAP) and Species Action Plans (SAP) and there are also "grouped action plans" for groups of related species with similar conservation requirements. The LBAP relating to this Site is the Cumbria Biodiversity Action Plan.

Badgers

The legislation protecting badgers in England and Wales is the Protection of Badgers Act 1992.

Under the Protection of Badgers Act 1992 it is an offence *inter alia* to:

- Wilfully kill, injure or take a badger, or to attempt to do so;
- Cruelly ill-treat a badger; or
- Intentionally or recklessly interfere with a badger sett by (a) damaging a sett or any part of one; (b) destroying a sett; (c) obstructing access to or any entrance of a sett; (d) causing a dog to enter a sett; or (e) disturbing a badger when it is occupying a sett.

The Badger Act 1992 defines a badger's sett as "*any structure or place which displays signs indicating current use by a badger*"

Natural England can issue licences to enable works to continue that may affect a protected species. In relation to disturbance of badgers, Natural England (2009) gives guidelines on disturbance which will require a licence. These includes: "*using very heavy machinery (generally tracked vehicles) within 30 metres of any entrance to an active sett; using lighter machinery (generally wheeled vehicles), particularly for any digging operation, within 20 metres; light work such as hand digging or scrub clearance within 10 metres. There are some activities which may cause disturbance at greater distances (such as using explosives or pile driving) and these should be given individual consideration.*"

Bats

In England, all bats and their roosts are protected under the Conservation of Habitats and Species Regulations 2017 and the Wildlife & Countryside Act 1981 (as amended). Several species of bat are also highlighted as Priority Species under the UK Biodiversity Action Plan and within the Local BAP.

Under the current legislation as summarised on pages 8 and 9 of the Bat Surveys for Professional Ecologists Good Practice Guidelines – 3rd Edition (2016) it is a criminal offence to:

"To kill, capture, injure or take a wild bat;

- *To damage or destroy a place used by a bat for breeding or resting. All offences of this nature are identified within the Habitats Regulations. This offence is unique in that it can be committed accidently. No element of intentional, reckless or deliberate action needs to be evidenced;*
- *To disturb bats anywhere (roosts, flight lines or foraging areas) if levels of disturbance can be shown to impair their ability to survive, to breed or reproduce, to rear or nurture their young, to hibernate or migrate or to affect significantly local distribution or abundance;*
- *To intentionally or recklessly disturb a bat, whilst it is occupying a place of shelter or protection;*

- *To intentionally or recklessly obstruct access to any place used by a bat for shelter or protection; and*
- *To be in possession or control of a bat alive or dead (or any part of a bat or anything derived from a bat, although bat droppings are generally considered to be acceptable), or to transport a bat, to sell or exchange a bat or to offer to sell or exchange a bat taken from the wild."*

Breeding Birds

Breeding Birds are protected under the Wildlife and Countryside Act which make it an offence to:

- *intentionally kill, injure or take any wild bird or take, damage or destroy the nest of any wild bird whilst it is in use or being built;*
- *intentionally take or destroy the egg of any wild bird;*
- *have in one's possession or control any wild bird, dead or alive, or any part of a wild bird (including eggs), which has been taken in contravention of the Act or the Protection of Birds Act 1954;*
- *intentionally or recklessly disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.*

Great Crested Newt

The great crested newt (*Triturus cristatus*) is fully protected under the Wildlife and Countryside Act, 1981 (as amended) and the Habitats Regulations, 2017. It is also a Species of Principal Importance. The legislation makes it an offence to:

- *Deliberately (or intentionally) kill, injure or capture (or take) a great crested newt, or great crested newt egg or eft;*
- *Deliberately (intentionally) damage or destroy any breeding site or resting place (i.e. pond, refuge, hibernaculum);*
- *Deliberately or recklessly obstruct access to any breeding site or resting place;*
- *Deliberately, intentionally or recklessly disturb a great crested newt, in particular disturbance which is likely to:*
    - *impair the ability of the great crested newt to survive, breed, reproduce, or to rear or nurture young;*
    - *impair the ability of the great crested newt to hibernate or migrate; or significantly affect the local distribution or abundance of great crested newts*

Invasive Species

It is an offence under Section 14(2) of the Wildlife and Countryside Act 1981 to '*plant or otherwise cause to grow*' in the wild any plant in Schedule 9 Part II.

It is a criminal offence to intentionally, wilfully kill, injure or take any of the aforementioned protected species or to destroy or disturb its habitat.

Local Policy

The site lies within the Copeland District of Cumbria and is covered by the Copeland Development Plan with the Core Strategy and Development Management Strategies (adopted December 2013).

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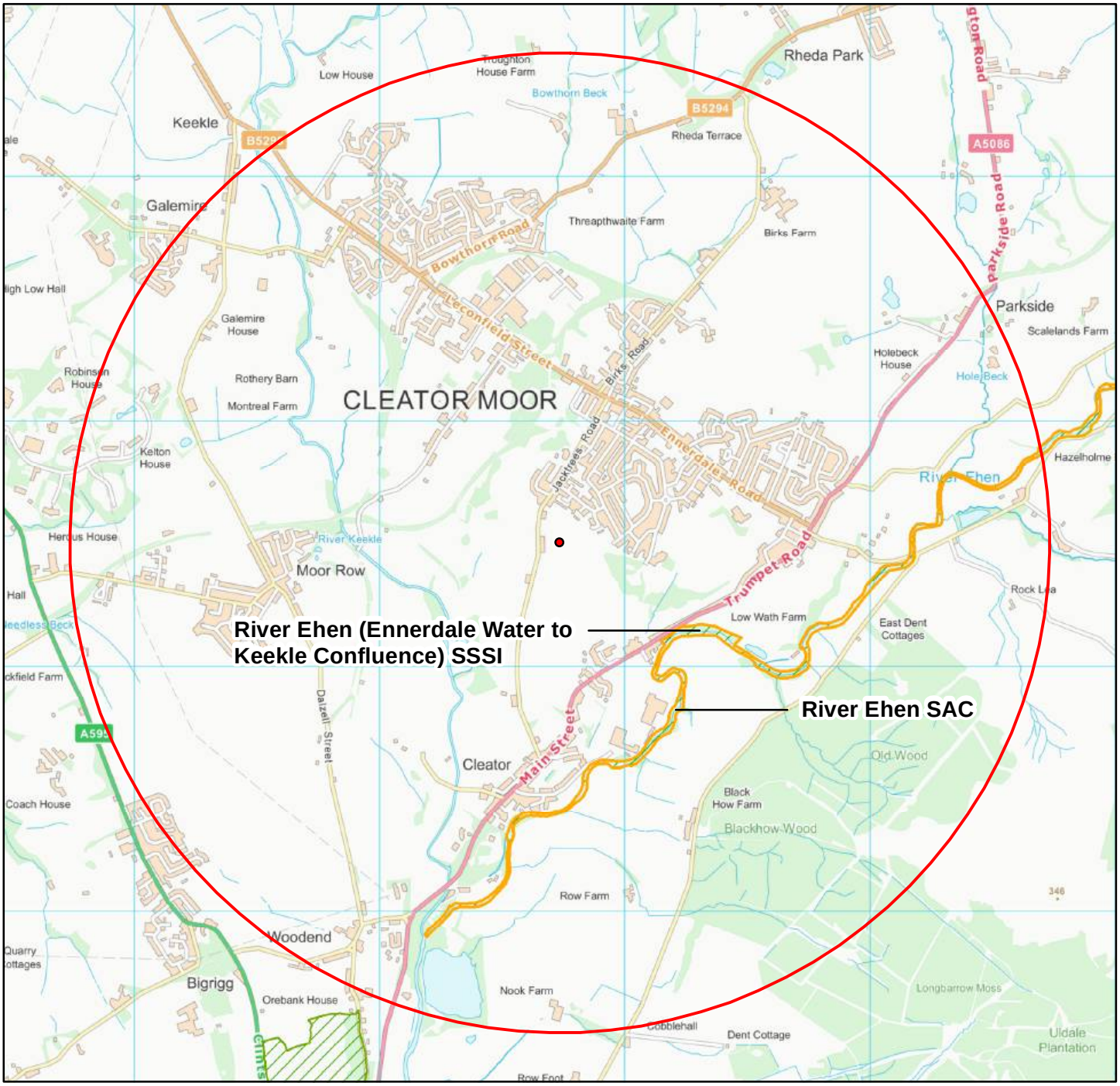
Appendix 5

Cumbria Biodiversity Data Centre (CBDC): Statutory Sites Search

For: Liz Kenyon at Ascerta

Centroid: NY 0173 1450
Site Name: Jacktrees Road
Buffer: 2km
Search Date: 29/09/2022

N.B. Sites are displayed only if they exist within the search area



Key

- Areas of Conservation (SACs)
- Sites of Special Scientific Interest (SSSIs)

0 250 500 1,000 m

Any queries in the first instance contact:
Dr Moustafa Eweda
Biological Data Officer
Cumbria Biodiversity Data Centre (CBDC)

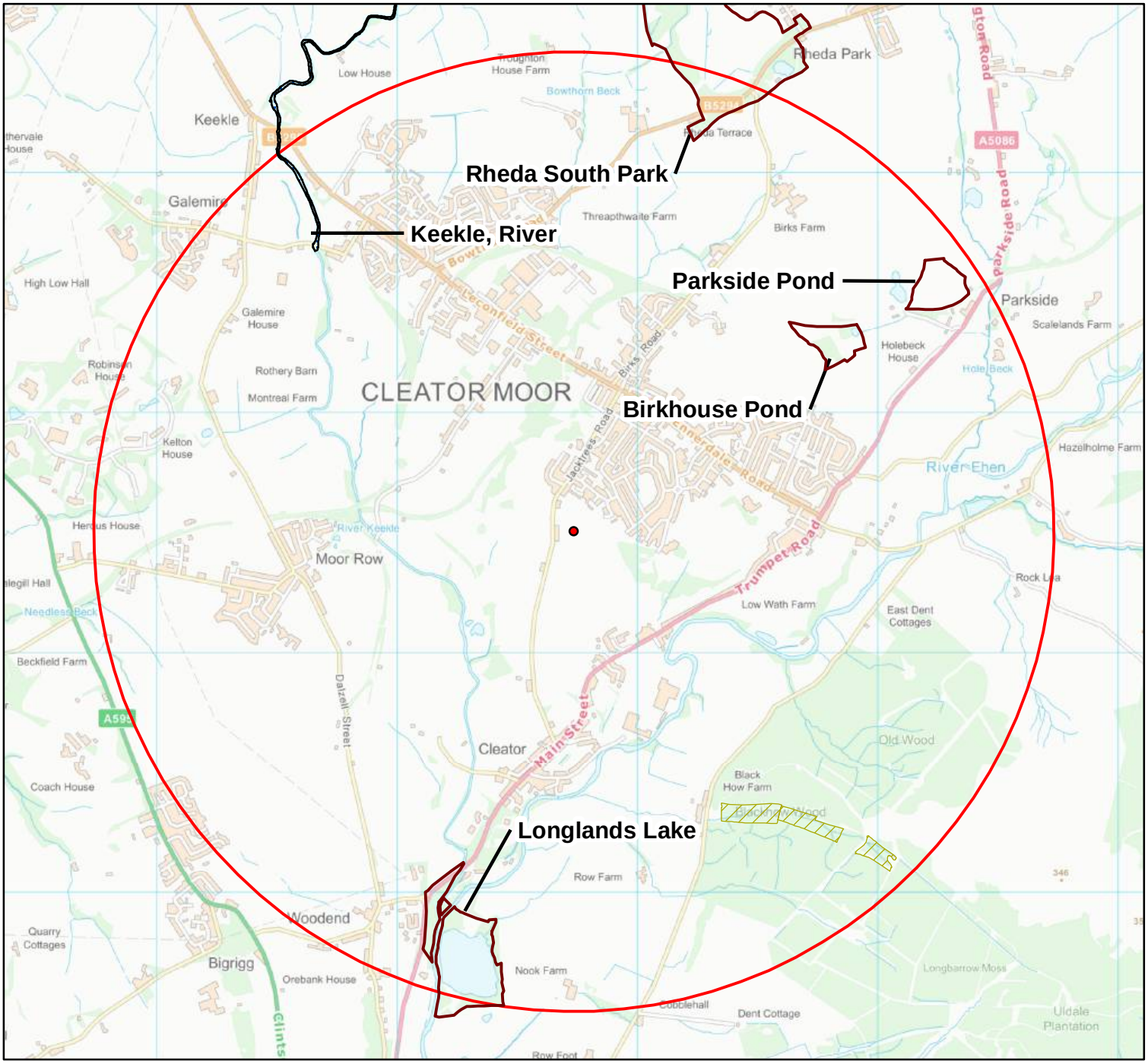
T. 01228 618770
E. dataofficer@cbdc.org.uk

Cumbria Biodiversity Data Centre (CBDC): Non-Statutory Sites Search

For: Liz Kenyon at Ascerta

Centroid: NY 0173 1450
Site Name: Jacktrees Road
Buffer: 2km
Search Date: 29/09/2022

N.B. Sites are displayed only if they exist within the search area



Key

- County Wildlife Sites
- Site of Invertebrate Significance
- Ancient Woodland

0 250 500 1,000 m

Any queries in the first instance contact:
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