

Woodward Court, Mirfield – Preliminary Ecological Appraisal

Bellway Homes

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Executive Summary

Cura Terrae Land & Nature (Cura Terrae) was commissioned in July 2025 by Bellway Homes to undertake a Preliminary Ecological Appraisal (PEA) for a circa 4.7-hectare (ha) area of land east of Woodward Court, Mirfield, West Yorkshire, WF14 0PR (central Ordnance Survey National Grid Reference (OS NGR): SE 20974 21050), hereafter referred to as ‘the Site’ and as annotated in Figure 1.

Site proposals have been taken from the Parker Peel Architectural ‘*Sketch Layout*’ (Drawing No: 2520-SK-02, dated June 2025), hereby referred to as the ‘Proposed Site Layout’. Proposals include the construction of 75 residential dwellings, including associated soft and hard landscaping.

A feasibility stage Biodiversity Net Gain Assessment (BNGA) is being undertaken by Cura Terrae, with habitat information detailed within this report forming the baseline habitat information for the feasibility stage BNGA and predicted quantitative biodiversity values, ahead of finalisation of the proposed development design and soft landscaping schedule.

It is recommended that a Construction Environmental Management Plan (CEMP) be prepared to inform proposals for the Site given the range of habitat and species protection measures likely to be required.

It is recommended that an Invasive Non-Native Species (INNS) walkover survey is undertaken during the appropriate botanical season (April to September inclusive) to confirm presence or likely absence of INNS within the Site ahead of the proposed development commencing. This will inform recommendations for management, treatment, or removal of any INNS encountered to facilitate the works. Any proposed works should follow standard measures to include biosecurity measures to be implemented during the construction and operational phases to reduce the possibility of spread of invasive species and wildlife diseases. Soft landscaping proposals at the Site must avoid the use of species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) and include native species of local provenance. Any non-native species should be of proven biodiversity value.

Key recommendations with regards to protected species are as follows:

- It is recommended that a pre-works badger walkover covering the Site and within 30 m of the Site boundary is completed by a suitably qualified ecologist within three months prior to the development commencing. A second walkover survey should be completed within 24 hours (h) ahead of site clearance and construction works commencing.
- Foraging and commuting bats are considered unlikely to be significantly impacted by the proposals, provided that habitat loss does not exceed the proposed amount and that retained habitats are fully protected through the implementation of a sensitive lighting strategy, alongside appropriately designed habitat creation and enhancement measures which will retain the functionality of the Site and provide increased foraging and commuting opportunities for bats post-development. As such, no further activity surveys (i.e. nighttime bat walkovers (NBW) and static monitoring) is considered to be currently required. This assessment should be approved with the LPA at the earliest opportunity to confirm the requirement for further bat activity surveys prior to the next bat activity survey season commencing in April 2026. Cura Terrae would need written confirmation from the LPA no

later than March 2026 should bat activity surveys be required to allow for the adequate level of survey effort to be programmed in.

- Best Practice Measures (BPM) with regards to nesting birds are to be in place during vegetation clearance.
- BPM are outlined for common amphibians, badger, reptiles, hedgehog *Erinaceus europaeus* and brown hare *Lepus europaeus* to be adhered to during vegetation clearance and construction in the event they are encountered at the Site (to be detailed in CEMP).
- Outline recommendations for ecological enhancement in the form of bat and bird boxes, hedgehog houses, hedgehog highways, insect towers and native planting are recommended to be incorporated as part of proposals for the Site. Final details for enhancements for those species requiring further survey would need to be confirmed following a review of any finalised plans for the Site along with the results of any further protected species surveys undertaken.

The proposed works require planning permission; therefore, an Ecological Impact Assessment (EclA) in accordance with CIEEM guidelines (2024) should be completed to support the associated planning application as required by the Local Planning Authority (LPA). This PEA is not a substitution for an EclA. An EclA can only be completed once a full assessment of the Site has been undertaken including any further survey for protected species.

1. Introduction

1.1 Background

- 1.1.1 Cura Terrae Land & Nature (Cura Terrae) was commissioned in July 2025 by Bellway Homes to undertake a Preliminary Ecological Appraisal (PEA) for a circa 4.7-hectare (ha) area of land east of Woodward Court, Mirfield, West Yorkshire, WF14 0PR (central Ordnance Survey National Grid Reference (OS NGR): SE 20974 21050), hereafter referred to as ‘the Site’ and as annotated in Figure 1.
- 1.1.2 Site proposals have been taken from the Parker Peel Architectural ‘*Sketch Layout*’ (Drawing No: 2520-SK-02, dated June 2025), hereby referred to as the ‘Proposed Site Layout’. Proposals include the construction of 75 residential dwellings, including associated soft and hard landscaping.
- 1.1.3 The purpose of the PEA was to record and map habitats and assess the potential for the Site to support (or contain) species, which are protected under UK and/or European nature conservation legislation, namely the Wildlife & Countryside Act (WCA) 1981 (as amended), the Conservation of Habitats and Species Regulations 2017 (as amended) and the Natural Environment and Rural Communities (NERC) Act 2006. For full details of legislation relating to those habitats and species discussed within this report visit <http://www.legislation.gov.uk>.
- 1.1.4 This report details the findings of a data consultation and ecological walkover survey carried out during August 2025. Methodologies employed during the survey are described along with the survey findings, evaluation, assessment and requirement for any further survey work and/or mitigation/enhancement as required.

1.2 Legislation

- 1.2.1 The primary purpose of the PEA was to identify any ecological constraints to the proposed works, including designated sites, habitats and species protected by legislation, namely, but not limited to:
- The WCA 1981 (as amended);
 - The Conservation of Habitats and Species Regulations 2017 (as amended) (“the Habitats Regulations”);
 - The Protection of Badgers Act 1992;
 - The NERC Act 2006;
 - The Environment Act 2021;
 - The Kirklees Local Plan 2019; and,
 - The Kirklees Biodiversity Action Plan 2009.

2. Methodology

2.1 Data Consultation

- 2.1.1 A data consultation was undertaken by Cura Terrae in August 2025 with West Yorkshire Joint Services (WYJS). The data consultation was undertaken to determine the presence of existing biological records and local non-statutory designated sites of nature conservation interest within 2 kilometres (km) of the Site. All records received have been reviewed, but records dating from the past ten years are considered to have greater relevance. Data consultations are an important component of a PEA and are the first stage of identifying any ecological constraints and assessing the likely ecological effects of a development proposal.
- 2.1.2 WYJS limit the way in which badger records are displayed in data searches due to the sensitivity of the records, by creating a buffered zone around known records to show the increased probability of badger activity in an area. However, as buffer zones were provided around known records it was still possible to review the presence of badger records and assess the suitability of the Site for badgers.
- 2.1.3 The Multi-Agency Geographic Information for the Countryside (MAGIC) website (<http://magic.defra.gov.uk>) was consulted in August 2025 for information on statutory designated sites of nature conservation interest, including the presence of Impact Risk Zones (IRZs). IRZs were developed by Natural England to provide an initial assessment of the potential risk to Sites of Special Scientific Interest (SSSIs) (statutory designated sites). MAGIC was also used to identify the presence of European Protected Species (EPS) mitigation licences within 2 km of the Site. MAGIC was also used to search for information relating to great crested newt *Triturus cristatus* (GCN) class survey licence return data and GCN pond survey data (2017-2019) within 250 m of the Site, as well as the presence of watercourses within 30 m of the Site.
- 2.1.4 Natural England's (NE) GCN Risk Zone dataset was consulted to give an understanding of the potential presence of GCN in the local area and therefore the likelihood of the species being present on the Site. This dataset identifies areas where the distribution of GCN has been categorised into district zones relating to GCN occurrence and the level of impact development is likely to have on this species. These zones are split into Red, Amber, and Green and White.
- 2.1.5 Where the Site is not located within an area covered by the Natural England's GCN District Level Licensing scheme or included in the Natural England's GCN Risk Zone dataset, the NatureSpace Partnership (NSP) GCN District Licensing scheme dataset was consulted. The dataset zones are split into Black, Red, Amber, Green and White.
- 2.1.6 Information obtained from WYJS, MAGIC, NE and/or NSP is included within the report where appropriate.

2.2 Ecological Walkover Survey

- 2.2.1 The Site was surveyed on 14th August 2025 by Senior Ecologist James Storey BSc MSc MCIEEM and Assistant Ecologist Arleya Baxter MBiolSci following good practice: The UK Habitat Classification System (HKHab 2.0) (UKHab Ltd., 2023). This survey method aims to define the habitat types present and is not intended to provide a complete list of all plants occurring across the Site.
- 2.2.2 The UKHab survey covered land within the Site (as illustrated by the red line boundary in Figure 1). Habitats and vegetation types present inside the Site were recorded using primary codes on to a field map and notable, rare or scarce plant species, including other features of ecological interest, were highlighted and marked using Target Notes (TN). The current management of habitats and associated features were noted and assigned UKHab secondary codes where relevant. Secondary codes are denoted in square brackets e.g. [32 - Scattered trees] within the report and Figure 1.
- 2.2.3 Evidence of protected species or species of nature conservation importance were recorded where present at the time of survey. Habitats present that are listed as Habitats of Principal Importance (HPI) under Section 41 of the NERC Act 2006 or as priority habitats in the '*Kirklees Biodiversity Action Plan*' (i.e. LBAP) were also noted.
- 2.2.4 Survey findings and TN are detailed in Section 3 and annotated on Figure 1, with details of TNs provided in Appendix 1, and photographs in Appendix 2.
- 2.2.5 The abundance of plant species recorded was classified according to the DAFOR rating. The standardised terms are as follows:
- D – Dominant;
 - A – Abundant;
 - F – Frequent;
 - O – Occasional, and,
 - R – Rare.
- 2.2.6 The importance of ecological features present within the Site was determined based on the guidance given in CIEEM Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017) and Guidelines for Ecological Impact Assessment (CIEEM, 2024). Individual ecological receptors (habitats and species) that could be affected by the proposed development were assigned levels of importance for nature conservation. The highest level is International, then decreasing in order of importance through UK, national, regional, county, local, and lastly site level (within the zone of influence).

2.3 Protected and Key Species

- 2.3.1 Any evidence of protected species or groups encountered during the survey was recorded. This included observations of field signs and an assessment of the suitability of the habitats present to support protected species. For full details of legislation relating to all habitats and species discussed within this report visit <http://www.legislation.gov.uk>.

Amphibians

- 2.3.2 The Site was assessed with regards to its potential to support amphibians, including GCN.
- 2.3.3 A desk-based search for waterbodies within 500 metres (m) of the Site, which are not separated by a significant barrier to amphibian dispersal, were searched for using 1:10,000 OS mapping.
- 2.3.4 Habitats within the Site were assessed for their suitability to support amphibians during their terrestrial and aquatic stages. The connectivity of any suitable habitat within the Site to other habitat within the surrounding area was assessed during the Site visit and through visual analysis of aerial imagery.

Badger

- 2.3.5 Signs of badger activity were searched for within the Site and up to 30 m beyond the perimeter of the Site observed, where possible.
- 2.3.6 The survey followed standard methodology detailed in 'Surveying Badgers' (Harris *et al.*, 1989) and the approach as described in 'The History, distribution, status and habitat requirements of the badger in Britain' (JNCC, 1990) and guidance from the Badger Conservation Trust (August 2023). 'Badger Protection: Best Practice Guidance for Developers, Ecologists and Planner (England)'.
- 2.3.7 This included survey for badger setts, latrine/dung pits, foraging marks, feeding signs (e.g. snuffle holes), footprints, badger hairs and worn pathways.
- 2.3.8 The survey focused on areas with suitable topography and/or vegetation for sett building as well as key habitats favoured for foraging such as grassland, woodland, hedgerows and banks.

Bats

- 2.3.9 A Daytime Bat Walkover (DBW) assessment was undertaken as part of the ecological walkover survey, focusing on accessible trees within or immediately adjacent to the Site, in accordance with the recommended methodology outlined in Collins (2023).
- 2.3.10 An individual tree may have several features of potential interest to roosting bats associated with it and it is not always possible to confirm usage of a feature by bats during a single visit, given their often highly transient nature. Consequently, it is customary when undertaking such surveys to

assign each feature on a tree to a defined category of: None, Further Assessment Required (FAR), Potential Roosting Feature – Individual (PRF-I), or Potential Roosting Feature – Multiple (PRF-M).

- 2.3.11 The Site was also assessed for its suitability for use by foraging and commuting bats in accordance with good practice guidelines (Collins, 2023) in relation to the availability of suitable habitat in the wider area off-site.

Birds

- 2.3.12 In 2021, an assessment of Birds of Conservation Concern (BoCC) was published by Stanbury *et al.* (2021), which defined rare and threatened bird species on three lists (Red, Amber and Green) describing the level of threat to each species of concern. “Red” is the highest conservation priority, with species needing urgent action, to “Green”, indicating that the species are relatively unthreatened.
- 2.3.13 Records provided by WYJS were filtered for WCA 1981 (as amended) Schedule 1 bird species and those species protected under Annex 1 of the EU Directive on the Conservation of Wild Birds, also known as the Birds Directive. Priority species (NERC Act 2006, LBAP) were likewise highlighted and the BoCC was also referred to.
- 2.3.14 During the survey, any species of birds encountered were recorded and habitats on the Site and immediately surrounding the Site were assessed for their potential value to nesting, wintering and foraging birds.

Invertebrates

- 2.3.15 The habitats present on the Site were assessed for their suitability to support protected and notable invertebrates, with any incidental observations of invertebrates at and adjacent the Site noted.

Reptiles

- 2.3.16 The habitats present on the Site were assessed for their suitability to support reptiles, with reference to their connectivity with other areas of suitable habitat within the wider landscape.

Riparian Mammals and White-clawed Crayfish

- 2.3.17 A desk-based search for watercourses on, and within 30 m of, the Site which are not separated from the Site by a significant barrier to dispersal was undertaken using OS 1:10,000 mapping.
- 2.3.18 Where present and access was possible, watercourses were subsequently assessed for their suitability to support otter *Lutra lutra*, water vole *Arvicola amphibius* and white-clawed crayfish *Austropotamobius pallipes*.

Other Key and Notable Species

2.3.19 Whilst on Site habitats were assessed for their potential to support any other nationally, locally scarce or locally notable species.

2.4 Invasive species

2.4.1 Whilst on the Site any evidence of invasive non-native species (INNS), as listed on Schedule 9 of the WCA 1981 (as amended), was recorded and mapped where seen.

2.5 Assumptions and Limitations

2.5.1 An ecological walkover is intended to provide a rapid assessment of habitats present within a site and is not intended to replace detailed vegetation or targeted protected species surveys, where deemed necessary.

2.5.2 The roosting suitability of the trees was assessed from ground level. Based on the height of PRFs recorded, it was not possible to adequately assess PRFs and as such, as a precautionary measure all trees with potential suitability were categorised as FAR.

3. Findings and Evaluation

3.1 Site Description

- 3.1.1 The Site is approximately 4.7 ha and habitats at the Site consisted of UK Habitat Classification types: modified grassland (g4), bramble scrub (h3d), other broadleaved woodland (w1g) [33 - Line of trees], species-rich native hedgerow (h2a5) and other native hedgerow (h2a6) [11 – Hedgerow with trees].
- 3.1.2 The Site is located within the Kirklees Council local authority. The Site is split across two horse-grazed fields bounded by three Public Rights of Way (PRoW) to the north, east and south. Mostly residential housing lies south and west of the Site associated with Mirfield, with a school and playing fields adjacent to the northern boundary of the Site. The land to the east of the Site is mostly agricultural land with grazed pasture. The wider area is predominantly urban but is interspaced by pockets of woodland, fields and other greenspace.

3.2 Designated Sites

- 3.2.1 Two statutory designated sites (comprising of two Local Nature Reserves (LNR)), were returned by WYJS for locations within 2 km of the Site (Table 1), as shown in Figure 2.
- 3.2.2 Three non-statutory designated sites (comprising of three Local Wildlife Sites (LWS)), were returned by WYJS for locations within 2 km of the Site (Table 1), as shown in Figure 2.
- 3.2.3 The Site is located within a Site of Special Scientific Interest (SSSI) Impact Risk Zone (IRZ) for Denby Grange Colliery Ponds SSSI, located approximately 7.8 km southeast of the Site, following a review of MAGIC. No risks relating to the IRZ, and the proposed development were identified when reviewing the risk register, therefore this is not discussed further in the report.

Table 1: Designated Sites within 2 km of the Site

Designated Site	Description from Citation	Approximate Distance and Direction from Site
Statutory		
Sunny Bank	The reserve is divided into two distinct areas, a mini parkland area with mature trees and a short circular path, and two sunken man-made pits that make up the wetland area. The	0.93 km northwest

Designated Site	Description from Citation	Approximate Distance and Direction from Site
Ponds LNR LWS	pond area is home to a large population of smooth newts <i>Lissotriton vulgaris</i> , frogs <i>Rana temporaria</i> and toads <i>Bufo bufo</i> . Other wildlife attracted to the pond include many species of garden birds, foxes <i>Vulpes vulpes</i> , deer <i>Cervidae sp.</i> , pipistrelle bats <i>Pipistrellus sp.</i> and other small mammals, all of which use the pond as a feeding area.	
Lower Spen Wildlife Area LNR LWS	Comprises woodland, scrubland, meadow and wetland. The meadows contain flowers that attract butterflies and bees. Woodland areas provide shelter and nest sites for birds. The water quality in the River Spen is improving, and it supports a wide range of wildlife on the shallow stony bed and well-vegetated riverbanks.	1.5 km east
Non-statutory		
Whitley Wood LWS	This replanted ancient woodland site supports predominantly deciduous woodland with beech <i>Fagus sylvatica</i> , sycamore <i>Acer psuedoplatanus</i> and sessile oak <i>Quercus petraea</i> being the dominant canopy species. In the central western area is a small patch of mixed woodland with larch <i>Larix decidua</i> and Corsican pine <i>Pinus nigra</i> adding to the canopy. The shrub layer consist mainly of holly <i>Ilex aquifolium</i> , with elder <i>Sambucus nigra</i> and hawthorn <i>Crataegus monogyna</i> adding additional native components. In the northern and southern parts of the site Rhododendron <i>Rhododendron ponticum</i> and laurel <i>Laurus sp.</i> have been planted but are relatively limited in extent. The ground flora supports areas of abundant native bluebell <i>Hyacinthoides non-scripta</i> , but these also have about 5% Spanish/hybrid bluebell <i>Hyacinthoides hispanica</i> in the northern part of the wood. In some areas the woodland ground flora is more diverse supporting ramsons <i>Allium ursinum</i> , male fern <i>Dryopteris filix-mas</i> , wood speedwell <i>Veronica montana</i> , wood anemone <i>Anemone nemorosa</i> , yellow archangel <i>Lamium galeobdolon</i> and dog's mercury <i>Mercurialis perennis</i> however these are generally only rare. Some areas under mature beech and close to footpaths have relatively sparse ground flora.	1.65 km south

- 3.2.4 The statutory designated sites are considered to be of importance to nature conservation at the national level and non-statutory designated sites are considered to be of importance to nature conservation between the local and county level.

3.3 Habitats

- 3.3.1 Habitats recorded on the Site, their distribution and composition are discussed in order of dominance below. Habitat locations and TN depicting features of ecological interest are annotated on Figure 1. TN descriptions are provided at Appendix 1. Site photographs are displayed in Appendix 2.

Modified grassland (g4) [32 – Scattered trees, 103 – Horse grazed]

- 3.3.2 The majority of the Site comprised of horse-grazed modified grassland which was predominantly of short sward height ($\leq 10\text{cm}$) although varied around the margins of either field (Plate 1, Appendix 2). Species recorded across both fields included abundant perennial ryegrass *Lolium perenne* and frequent cocksfoot grass *Dactylis glomerata*, creeping buttercup *Ranunculus repens*, false oat-grass *Arrhenatherum elatius* and creeping bent grass *Agrostis stolonifera*.
- 3.3.3 In more localised areas of either field species included occasional soft brome *Bromus hordeaceus*, ribwort plantain *Plantago lanceolata*, red clover *Trifolium pratense*, dandelion *Taraxacum officinale* agg., creeping thistle *Cirsium arvense*, Yorkshire fog *Holcus lanatus*, broadleaved dock *Rumex obtusifolius*, yarrow *Achillea millefolium* and pineappleweed *Matricaria discoidea*, with rare common nettle *Urtica dioica*, ragwort *Jacobaea vulgaris*, mouse-eared chickweed *Cerastium fontanum*, common vetch *Vicia sativa*, rosebay willowherb *Epilobium angustifolium*, shepherd's purse *Capsella bursa-pastoris*, hedge mustard *Sisymbrium officinale*, meadow foxtail *Alopecurus pratensis* and sweet vernal grass *Anthoxanthum odoratum*. Scattered trees included hawthorn and sycamore.
- 3.3.4 Modified grassland is not a HPI under Section 41 of the NERC Act 2006, although 'semi-natural pasture' is covered within the LBAP. Semi-natural pasture refers to areas of grazed grassland which retain a higher proportion of broadleaved herbaceous species relative to grasses. The grassland at the site has limited botanical diversity, largely due to regular grazing pressure and footfall from horses, which has led to the dominance of common plant species including coarse grasses and a lack of structural variation in the sward. Given the prevalence of this habitat locally and the abundance of common species, modified grassland at the Site is considered to be of no more than site level importance to nature conservation.

Bramble scrub (h3d) [32 – Scattered trees]

- 3.3.5 Three areas of bramble scrub with scattered trees [32] were located along the northwest, north and southwest boundaries of the Site (Plate 7, Appendix 2).

- 3.3.6 Species recorded within the scrub along the northern boundary included dominant bramble *Rubus fruticosus agg.*, frequent ivy *Hedera helix*, creeping thistle, common nettle, and occasional elder *Sambucus nigra* and dog-rose *Rosa canina*.
- 3.3.7 Along the northwest boundary species included dominant bramble, occasional false-oat grass, cocksfoot grass, common nettle, and rare common plum *Prunus domestica* and honeysuckle *Lonicera periclymenum*. Scattered trees amongst the scrub include elder, ash and sycamore.
- 3.3.8 Southwestern boundary species included dominant bramble, frequent ivy, common nettle, occasional creeping thistle and rare common hawthorn *Crataegus monogyna*, lilac *Syringa vulgaris*, privet species *Ligustrum sp.*, lilac and willow species *Salix sp.*
- 3.3.9 Bramble scrub with scattered trees is not a HPI under Section 41 of the NERC Act 2006, although is covered under ‘scrub and habitat mosaics on previously developed land’ within the LBAP. The bramble scrub and scattered trees on Site is a transitional habitat which will eventually become woodland if unmanaged, and has the potential to support a variety of protected and notable species (as discussed in Section 3.4 below), although is considered to be of limited botanical value due to prevalence of common occurring species. Given the prevalence of this habitat locally and its limited species diversity; bramble scrub at the Site is considered to be of no more than site level importance to nature conservation.

Other broadleaved woodland (w1g) [33 – Line of trees]

- 3.3.10 A section of other broadleaved woodland, in the form of a line of trees (H3; Figure 1) [33] approximately 78 m in length, was present on the north boundary of the Site. Species present included frequent common hawthorn and ivy, with occasional sessile oak and elder.
- 3.3.11 The line of trees at the Site falls under the definition ‘line of trees’ given that it is a boundary feature over 20 m long and less than 5 m wide and the canopy base is more than 2m in height with open habitat on each side, which qualifies as a HPI under the NERC Act 2006 as a boundary line of trees or shrubs (over 20m long and less than 5m wide, where gaps between the trees or shrub species are less than 20m wide) and comprising 80% of at least one native woody species. Line of trees are also listed within the LBAP and form a network of boundary habitats with hedgerows throughout the wider area off-site and is therefore considered to be of importance to nature conservation at the local level.

Other native hedgerow (h2a6) [11 – Hedgerow with trees]

- 3.3.12 One section of other native hedgerow (H1; Figure 1) hedgerow with trees [11] was present separating the two fields at the Site, averaging approximately 2.5 m in height and measuring 146 m in length (Plate 2, Appendix 2). Species present included dominant hawthorn, frequent elder, occasional ivy with rare bramble and sycamore, with three or less woody species recorded per 30 m section, meaning this hedgerow does not qualify as ‘species-rich’.

- 3.3.13 The section of other native hedgerow present at the Site qualifies as a HPI under the NERC Act 2006 as it comprises 80% of at least one native woody species. Hedgerows are also listed within the LBAP and as such, the other native hedgerow on Site is considered to be of importance to nature conservation at up to the local level.

Species-rich native hedgerow (h2a5)

- 3.3.14 One section of species-rich native hedgerow (H2; Figure 1) was present on the eastern boundary of the Site, averaging approximately 1.5 m in height and measuring 62 m in length (Plate 3, Appendix 2). Species present included frequent hawthorn, bramble, sycamore, elder, holly, ivy and rare cherry laurel *Prunus laurocerasus*. At least four woody species were recorded within a 30 m section.
- 3.3.15 The species-rich native hedgerow present at the Site qualifies as a HPI under the NERC Act 2006 as it comprises 80% of at least one native woody species. Hedgerows are also listed within the LBAP and as such, the hedgerow on Site is considered to be of importance to nature conservation at up to the local level.

3.4 Species

Amphibians

- 3.4.1 WYJS returned a total of five records of amphibians for locations within 2 km of the Site. The records pertained to GCN, smooth newt *Lissotriton vulgaris* and common frog *Rana temporaria*. The closest record pertained to a smooth newt, located approximately 0.51 km east of the Site from 2019. The closest record pertaining to GCN was a historical record located 1.1 km northwest of the Site from 2000.
- 3.4.2 No GCN EPS licences, Class Survey Licence Returns or Pond Survey Data were identified within 2 km of the Site using MAGIC.
- 3.4.3 The Site is not covered by NE or NSP GCN licencing schemes.
- 3.4.4 No aquatic habitat was recorded on the Site. Using OS mapping, no waterbodies were identified within 500 m of the Site (the typical upper dispersal limit for GCN). The Conker Dyke is located approximately 400 m southeast of the Site although is separated from the Site by residential housing, roads and other infrastructure which likely act as barriers to dispersal, and if a flowing watercourse is unlikely to support breeding GCN and common amphibians. Consequently, GCN are considered highly unlikely to be present on the Site.
- 3.4.5 The Site offers suitable terrestrial habitats for common amphibians in the form of grassland, scrub and hedgerow bases (sheltering, dispersal and foraging), although this is limited in extent compared to the availability of similar to higher quality habitat to the north and east of the Site including grassland, scrub, hedgerows and woodland.

- 3.4.6 Garden ponds/water features may exist in the local area off-site. In general, such water features are usually relatively small in size and are more likely to be used by common amphibians i.e. smooth newt, palmate newt *Lissotriton helveticus* and/or common frog (albeit GCN and common toad *Bufo bufo* may use them in certain circumstances; for example, if there is a larger waterbody close by that supports either of these species).
- 3.4.7 Based on the availability of similar to higher quality terrestrial habitat in the surrounding area of the Site, lack of aquatic habitat on and within 500 m of the Site, the Site is considered to be of no more than site level importance to common amphibians in the terrestrial stage.

Badger

- 3.4.8 The Site falls within the area of increased probability of badger activity based on withheld records of badgers within 2 km of the Site.
- 3.4.9 During the walkover survey, no signs of badger activity were identified on or within 30 m of the Site. No signs of recent digging/fresh spoil/bedding, latrines/dung pits or badger hairs/prints were recorded.
- 3.4.10 Boundary habitats including around the edges of bramble scrub and beneath the hedgerows and line of trees were considered to display suitability for sett building, although the Site likely experiences regular disturbance from the neighbouring PRowS which may deter badgers from taking up residence at the Site.
- 3.4.11 All habitats on Site provide suitability for foraging and commuting badgers and these are connected to other similar to higher quality habitat in the wider area including grassland, hedgerows, woodland and scrub to the north and east.
- 3.4.12 Given the lack of badger setts recorded on or within 30 m of the Site during the walkover survey and the abundance of suitable sett building, foraging and commuting habitats in the wider area, it is considered that the Site is of importance to badgers at up to the site level only.

Bats

- 3.4.13 WYJS returned a total of 31 bat records for locations within 2 km of the Site, seven of which were roost records. Roost records pertained to common pipistrelle *Pipistrellus pipistrellus*, Leisler's bat *Nyctalus leisleri* and noctule *Nyctalus noctula*. The closest record pertains to a common pipistrelle roost, located approximately 1.47 km southwest of the Site from 2015.
- 3.4.14 The remaining 24 records pertained to field records of foraging and commuting bats. The closest record pertained to Leisler's bat, located approximately 0.46 km southwest of the Site from 2017.
- 3.4.15 Four EPS licences pertaining to bats were identified within 2 km of the Site using MAGIC. The EPS licences are summarised in Table 2 below.

Table 2: Bat EPS licence summary.

Species	Description	Licence reference	Date of licence	Distance from Site
Common pipistrelle	Destruction of resting place	2014-4800-EPS-MIT and 2014-4800-EPS-MIT-1	2015 - 2020	1.53 km west
Common pipistrelle	Destruction of resting place	2016-25281-EPS-MIT	2016 - 2021	1.54 km south
Common pipistrelle	Damage and destruction of resting place	2016-27006-EPS-MIT	2016	1.75 km southwest
Common pipistrelle	Damage of a breeding place, destruction of a resting place	2015-15246-EPS-MIT	2015 - 2025	1.96 km south

Roosting Bats

3.4.16 One mature sycamore tree (TN1; Figure 1 and Appendix 1) adjacent to the southwest boundary was assessed as displaying suitability for roosting bats and categorised as Further Assessment Required (FAR) (Plate 7, Appendix 2). The tree was heavily clad with ivy which may provide crevices suitable for roosting bats and may be obscuring the view of other suitable PRFs associated with the tree.

3.4.17 All other trees on or immediately adjacent to the Site were considered to display 'None' suitability for roosting bats.

Foraging and Commuting Bats

3.4.18 The Site contains suitable foraging and commuting habitat including grassland, bramble scrub, mature trees, hedgerows and the line of trees, which have connectivity to other hedgerows, mature trees and further suitable habitat in the wider area off-site. As such, the Site is deemed to display 'Moderate' suitability for foraging and commuting bats in accordance with good practice guidelines (Collins, 2023).

Birds

- 3.4.19 WBRC returned a total of 29 records comprising 19 bird species for locations within 2 km of the Site. Bird species recorded with 2 km of the Site are summarised in Appendix 3 and include 9 Red, 6 Amber and 4 Green listed BoCC species.
- 3.4.20 During the ecological walkover survey, a total of four bird species were recorded flying over or using the Site. These included robin *Erithacus rubecula*, Eurasian magpie *Pica pica*, great tit *Parus major* and wren *Troglodytes troglodytes*.
- 3.4.21 Habitats on the Site have suitability to support a variety of breeding and foraging bird species. The grassland margins also displays some suitability for ground-nesting bird species including skylark *Alauda arvensis*, although this is considered limited due to regular disturbance from horse grazing and the neighbouring PRowS.
- 3.4.22 The grassland at the Site was considered unlikely to provide suitable hunting grounds for barn owl *Tyto alba* and other birds of prey due to the lack of a varied sward height and litter layer which would support sufficient populations of rodent prey species. None of the trees recorded on or immediately adjacent to the Site were considered to display suitability for nesting barn owl.
- 3.4.23 Similar to higher quality habitat is available in the wider area including grassland, scrub, hedgerows and woodland to the north and east suitable for a variety of bird species. As such, habitats on the Site are considered to be of importance to breeding birds at the site level only.
- 3.4.24 The hedgerow, scrub and line of trees on Site include berry-producing species such as hawthorn, bramble, holly and elder. These provide a foraging resource in autumn and winter for species such as redwing *Turdus iliacus* and fieldfare *Turdus pilaris* as well as other overwintering bird species, although there is extensive availability of these habitats within the wider area. Overall, based on the relatively small size of the Site and the availability of similar to higher quality habitats in the wider area, the Site is unlikely to support notable numbers of wintering birds and is therefore considered to be of importance for wintering birds at up to the site level only.

Invertebrates

- 3.4.25 WYJS returned eight recent records of invertebrates for locations within 2 km of the Site. The closest record pertains to a small heath butterfly *Coenonympha pamphilus* located approximately 1.3 km northeast of the Site from 2019.
- 3.4.26 The Site supports a variety of plant species and habitat structures that provide suitable floral resources and basking opportunities for a range of invertebrates. The grassland, scrub, hedgerow and line of trees on the Site provide suitable foraging suitability and commuting corridors for a variety of pollinators. Whilst suitable habitat is present at the Site, given the availability of habitat in the wider area of similar to higher quality, the Site is considered unlikely to be importance to invertebrates at above the site level.

Reptiles

- 3.4.27 WYJS returned no records of reptiles for locations within 2 km of the Site.
- 3.4.28 Site habitats, including grassland, scrub and hedgerow bases provide a variety of shelter, basking, dispersal and foraging opportunities for reptiles, although areas within the centre of the fields that receive regular disturbance from horse grazing are considered sub-optimal based on the predominantly short sward height. There is connectivity between the Site and similar to higher quality habitats in the wider area off-site including grassland, scrub, hedgerows and woodland edges to the north and east.
- 3.4.29 It is considered highly unlikely that more than low numbers of common reptiles such as common lizard *Zootoca vivipara*, slow worm *Anguis fragilis* and grass snake *Natrix helvetica* would occur on Site given that the majority of the Site comprises grassland of limited suitability due to existing disturbance levels from horse grazing and its predominantly short sward height, and the availability of larger areas of similar to higher value habitat in the wider area. As such, the Site is considered to be of no more the site level importance for reptiles.

Riparian Mammals and White-Clawed Crayfish

- 3.4.30 WYJS returned one record of otter located approximately 1.90 km southeast of the Site from 2019. No EPS licence pertaining to otter were identified within 2 km of the Site using MAGIC.
- 3.4.31 WYJS returned no recent records of water vole for locations within 2 km of the Site. The closest historical record was located approximately 1.38 km northeast of the Site from 2000.
- 3.4.32 WYJS returned no records of white-clawed crayfish (WCC) for locations within 2 km of the Site.
- 3.4.33 No waterbodies or watercourses are present at or within 30 m of the Site. The Conker Dyke is located approximately 0.4 km southeast of the Site and is separated from the Site by residential housing, roads and other built infrastructure which act as barriers to dispersal for the above species. As such, otter, water vole and white-clawed crayfish are highly unlikely to be associated with the Site and are not discussed further in this report.

Other Notable and Key Species

Hedgehog

- 3.4.34 WYJS returned one record of European hedgehog *Erinaceus europaeus* located approximately 0.94 km southwest of the Site from 2017.
- 3.4.35 Site habitats including grassland, scrub and hedgerows were considered to display suitability for foraging, commuting and sheltering/hibernating hedgehog. However, given the abundance of similar to higher quality habitat in the surrounding area including grassland, scrub and woodland

to the north and east of the Site, the resources on the Site are considered to be of importance to hedgehog at no greater than site level.

Brown Hare

- 3.4.36 WBRC returned no recent records of brown hare *Lepus europaeus* for locations within 2 km of the Site. One historical record was located 1.83 km southwest from the Site in 1984.
- 3.4.37 Site habitats including the grassland, scrub and hedgerows provide some suitability for brown hare although similar to higher quality habitat is present in the wider area. Therefore, the resources on the Site are considered to be of importance to brown hare at no greater than site level.

3.5 Invasive Species

- 3.5.1 WYJS returned 43 records for invasive non-native species (INNS) for locations within 2 km of the Site pertaining to Himalayan balsam *Impatiens glandulifera*, hollyberry cotoneaster *Cotoneaster bullatus*, giant hogweed *Heracleum mantegazzianum* and Japanese knotweed *Fallopia japonica*. The closest record was Himalayan balsam recorded within the Site boundary from 2015, although no evidence of this INNS was recorded during the walkover survey when the plant typically reaches its full growth and is setting seed. Himalayan balsam is typically found on riverbanks and in damp areas such as wetlands and waste ground.
- 3.5.2 One record of grey squirrel *Sciurus carolinensis* was recorded approximately 1.96 km west from the Site in 2019.
- 3.5.3 Two stands of cotoneaster species *Cotoneaster sp.* were recorded adjacent to the southeastern boundaries off-site during the walkover survey (TN3; Figure 1 and Appendix 1, Plate 8; Appendix 2). Five species of cotoneaster are listed as INNS on Schedule 9 of the WCA, 1981 (as amended).
- 3.5.4 An area of snowberry *Symphoricarpos albus* was also recorded adjacent to the southeastern boundary off-site during the ecological walkover survey (TN2; Figure 1 and Appendix 1, Plate 6; Appendix 2). Species of this plant are not listed as INNS on Schedule 9 of the WCA, 1981 (as amended), however it is described as non-native with invasive tendencies due to its ability to spread rapidly through suckering and berry dispersal.

4. Ecological Constraints and Recommendations

4.1 Proposals

- 4.1.1 Proposed works at the Site relate to the construction of 75 residential dwellings, including associated soft and hard landscaping. It is anticipated that the entirety of modified grassland and bramble scrub will be lost to facilitate the development. It is understood that the hedgerows, line of trees and scattered trees across the Site will mostly be retained, with partial loss of the native hedgerow with trees (H1) require to accommodate an access road.

4.2 Constraints, Potential Impacts and Recommendations

- 4.2.1 The ecological constraints, potential impacts and further survey/mitigation required to address the above are detailed in Table 3 on the following pages.
- 4.2.2 In accordance with CIEEM guidelines (2024), this PEA report will remain valid for a period of 18 months from the date of the survey. Should there be changes to the Site within this timeframe which may result in a change in the presence of habitats and/or species, an update survey should be considered. After 18 months an update PEA including site visit and desk study are likely to be required to inform an appropriate assessment of the potential impacts to ecological features and presence of protected species.
- 4.2.3 The proposed works require planning permission; therefore, an Ecological Impact Assessment (EclA) in accordance with CIEEM guidelines (2024) should be completed to support the associated planning application as required by the Local Planning Authority (LPA). This PEA is not a substitution for an EclA. An EclA can only be completed once a full assessment of the Site has been undertaken including any further survey for protected species has been undertaken where required.

Table 3: Ecological Constraints, Impacts and Recommendations

Feature/Constraint	Potential Impact and Effect	Recommendation	Deliverable	Timing
Designated sites				
Statutory and non-statutory designated sites	The works are anticipated to remain wholly within the Site boundary and are not expected to impact the integrity of the designated sites identified within 2 km of the Site. This is based on the nature and scale of the proposals and the distance between the Site and designations.	No specific mitigation or compensation measures are considered to be required in relation to designated sites.	N/A	N/A
Habitats	It is anticipated that the entirety of modified grassland and bramble scrub habitat will be lost to facilitate the development. It is understood that the hedgerows, line of trees and scattered trees across the Site will be mostly retained, with the partial loss of H1 to facilitate access.	A feasibility stage BNGA is currently being undertaken by Cura Terrae, with the habitat information detailed within this report forming the baseline habitat information for the feasibility stage BNGA and predicted quantitative biodiversity values, ahead of finalisation of the proposed development design and soft landscaping schedule.	BNGA and associated report(s)	Feasibility Stage & Design stage BNGA to be completed ahead of works.

Feature/Constraint	Potential Impact and Effect	Recommendation	Deliverable	Timing
		<p>It is recommended that a Construction Environmental Management Plan (CEMP) be prepared for the proposed development given the potential range of habitat and species protection measures required. Once further surveys have been undertaken where required, the CEMP will draw together the various precautionary measures and timing constraints into one document. This will include habitat protection measures such as the use of fencing of Root Protection Zones (RPZs) to safeguard retained trees and hedgerows and pollution presence (dust, noise, lighting) to protect both retained on-site and off-site habitats.</p>	CEMP document	Prior to works commencing.
Protected and notable species				
Amphibians	Any vegetation clearance/ground works at the Site could result in the killing or injury of common amphibians in low numbers, if present at the time of works.	The CEMP should include Best Practice Measures (BPM) for common amphibians to be adhered to during any proposed construction works to avoid disturbance/injuring/killing of individual common amphibians and	BPM included within CEMP document.	Prior to works commencing and during works.

Feature/Constraint	Potential Impact and Effect	Recommendation	Deliverable	Timing
		<p>minimise the risk of disturbing/damaging potential terrestrial shelter and/or hibernation sites.</p> <p>In the unlikely event that a GCN is encountered, works would cease, and an ecologist contacted for advice.</p>		
Badger	Habitat loss associated with the development is considered to result in the loss of suitable sett building and foraging/commuting habitat for badgers.	Due to the presence of suitable habitat on the Site for badgers (including for sett creation) it is advised that a pre-works badger walkover covering the Site and within 30 m of the Site boundary is completed by a suitably qualified ecologist within three months prior to the development commencing. A second walkover survey should be completed within 24 hours (h) ahead of site clearance and construction works commencing.	Pre works badger check/walkover(s)	Prior to works commencing
	Killing or injury of badgers and disturbance risks during construction and operational phases of the development (e.g.	As a precautionary measure, BPM for badgers should be implemented throughout the construction phase to protect badgers in the event they are present at the time of works. The BPM	BPM to be included in CEMP	CEMP to be prepared ahead of works and to apply

Feature/Constraint	Potential Impact and Effect	Recommendation	Deliverable	Timing
	increased levels of lighting, public access etc).	<p>should include any excavations deeper than 1 m being covered overnight during works. Shallower excavations should have a scaffold board or equivalent placed in them overnight to allow any badgers to escape, should they fall in. Open pipework will further not be left open overnight.</p> <p>Works should be carried out during daylight hours, where possible. If required, artificial lighting must be minimised and directed towards the works area only and away from retained habitats (i.e. hedgerows and nearby woodland). Tower lighting is not recommended. Hoods should be fitted to all lights to prevent light spill behind or above the light. Lights should be turned off when not in use. It is recommended that vegetation clearance is kept to a minimum and does not exceed the planned amount.</p> <p>Appropriate storage of equipment and materials in designated areas and avoidance of stockpiling on Site.</p>		during pre-works checks.

Feature/Constraint	Potential Impact and Effect	Recommendation	Deliverable	Timing
		<p>All waste to be securely stored in covered skips or containers to prevent materials littering the site.</p> <p>The CEMP should outline all measures to safeguard badgers during site clearance and construction.</p>		
Bats	<p>It is understood that the mature sycamore tree displaying suitability for roosting bats will be retained as part of the proposals.</p> <p>The Site is considered to display 'Moderate' suitability for foraging and commuting bats.</p> <p>Loss of foraging and commuting habitats for bats (i.e. grassland, trees and a section of hedgerow)</p>	<p>Should proposals change to include the removal or management (e.g. pruning) of the tree, or if the tree is likely to be indirectly affected by increased lighting, it should be subject to further assessment to determine the presence or likely absence of roosting bats. Where necessary, appropriate mitigation measures, including licensing, should be implemented.</p> <p>In line with current guidance (Collins, 2023), it is advised that Site's displaying 'Moderate' suitability for roosting bats are subject to a suite of bat activity surveys comprising of nighttime bat walkover surveys (NBW) and static monitoring surveys, with NBW surveys undertaken once per</p>	<p>Further survey (if required).</p> <p>Agreement with LPA over need for further bat activity surveys (prior to 2026 bat activity season).</p>	<p>Prior to proposed works commencing</p>

Feature/Constraint	Potential Impact and Effect	Recommendation	Deliverable	Timing
	<p>and indirect impacts from increased lighting during the construction and operational phases, which may spill onto retained and created habitats.</p>	<p>season (i.e. once within April/May, once within June/August and once within September/October) and static monitoring surveys undertaken once per month throughout the survey season (April to October inclusive). The findings of these surveys inform the need for mitigation and compensation measures.</p> <p>Based on the current proposals for the Site, foraging and commuting bats are considered unlikely to be significantly impacted by the proposals, provided that habitat loss does not exceed the proposed amount and that retained habitats are fully protected through the implementation of a sensitive lighting strategy, alongside appropriately designed habitat creation and enhancement measures which will retain the functionality of the Site and provide increased foraging and commuting opportunities for bats post-development. As such, no further activity surveys (i.e. nighttime bat walkovers (NBW) and static</p>	<p>Sensitive lighting strategy.</p>	

Feature/Constraint	Potential Impact and Effect	Recommendation	Deliverable	Timing
		<p>monitoring) are considered to be required.</p> <p>This assessment should be approved with the LPA at the earliest opportunity to confirm the requirement for further bat activity surveys prior to the next bat activity survey season commencing in April 2026. Cura Terrae would need written confirmation from the LPA no later than March 2026 should bat activity surveys be required to allow for the adequate level of survey effort to be programmed in.</p>		
		<p>Lighting and the layout of the proposed development (as well as any temporary lighting to be used during the construction phase) will be designed to avoid light-spill onto suitable retained and created habitats to safeguard these habitats as foraging, commuting and potential roosting resources. The lighting design should include consultation with an ecologist and be designed in accordance with current guidance from the Bat Conservation Trust 'Bats</p>	<p>Sensitive lighting strategy to be included in CEMP</p>	

Feature/Constraint	Potential Impact and Effect	Recommendation	Deliverable	Timing
		<p>and Artificial Lighting at Night' (Guidance note 08/23).</p> <p>The CEMP should outline all measures to safeguard bats during site clearance and construction.</p>		
Birds	Any vegetation clearance likely to result in a minor loss of suitable habitat for nesting birds and associated risk of injury/killing/disturbance to nesting birds/active nests/chicks/eggs.	<p>It is recommended that nesting bird checks are undertaken by a suitably qualified ecologist if any vegetation clearance is scheduled to take place during the main nesting bird season (March to August inclusive). Nesting bird checks are valid for a 24-hour period only.</p> <p>If an active nest is identified, an appropriate exclusion zone (species dependent) must be installed around the nest until it is no longer active. This may require monitoring for periods of at least up to a month dependent on nesting stage.</p>	Appropriate timing of works and nesting bird checks where appropriate.	Prior to works commencing and during the works.

Feature/Constraint	Potential Impact and Effect	Recommendation	Deliverable	Timing
		Although the Site is considered suitable for breeding and wintering birds, further survey is considered to be unnecessary given that on-site habitats are unlikely to support a diverse species assemblage or large population of any given bird species and the extensive availability of similar to higher quality habitat in the wider area.		
Reptiles	Disturbance and loss of suitable habitat which has the potential to impact common reptiles in low numbers through killing/injury/disturbance if present at the time of works.	The BPM to be outlined in the CEMP to protect amphibians will also serve to protect reptiles in the event that they are present in low numbers during the proposed works.	BPM to be included in CEMP.	During the works.
Hedgehog	Disturbance and loss of suitable habitat which has the potential to impact hedgehog through killing/injury if present at the time of works.	Works should be carried out following BPM combined with the recommendations made for amphibians, reptiles and badgers. Further detail will be provided in the CEMP.	BPM	During the works.
Brown hare	Disturbance and loss of suitable habitat which has the potential to	Works should be carried out following BPM combined with the	BPM	During the works.

Feature/Constraint	Potential Impact and Effect	Recommendation	Deliverable	Timing
	impact brown hare through killing/injury if present at the time of works.	<p>recommendations made for common amphibians, reptiles and badgers.</p> <p>Further detail will be provided in the CEMP.</p>		
INNS				
INNS	Although no INNS were recorded within the Site boundary at the time of the survey, there is a risk that INNS could spread into the Site from off-site habitats prior to works commencing.	<p>It is recommended that an update INNS walkover survey is undertaken during the botanical season (April to September inclusive) to fully determine the presence or likely absence of INNS within the Site prior to the proposed development commencing. This will inform recommendations for management, treatment, or removal of any INNS encountered to facilitate the works.</p> <p>Any proposed works should follow standard measures to include biosecurity measures to be implemented during the construction and operational phases to reduce the possibility of spread of invasive species and diseases.</p>	<p>INNS walkover survey</p> <p>Adherence to standard biosecurity protocols.</p>	Prior to and during the proposed works.

Feature/Constraint	Potential Impact and Effect	Recommendation	Deliverable	Timing
		<p>Site staff should be provided with a toolbox talk and information sheet which will detail and display common invasive species which may be encountered on Site, including those recorded off-site.</p> <p>Biosecurity measures should be implemented during site clearance works to ensure that invasive plants are not spread throughout and off the Site. Plant material can be easily spread on equipment, machinery and clothing. In accordance with the Non-Native Species Secretariat (NNS) protocol, the Check, Clean, Dry principles should be implemented, with boots, equipment and machinery cleaned before leaving Site, where possible.</p> <p>The above information should be detailed further within the CEMP document.</p>		

Feature/Constraint	Potential Impact and Effect	Recommendation	Deliverable	Timing
		Soft landscaping proposals at the Site should avoid the use of species listed on Schedule 9 of the WCA 1981 (as amended) and ideally no non-native species where possible. Any non-native species should be of proven biodiversity value.	Soft landscaping plan	

5. Ecological Enhancement

- 5.1.1 The provision of bat roosting opportunities at the Site post-development would contribute towards biodiversity enhancement at the Site. Integrated bat boxes for buildings (e.g. Habitat integrated bat boxes) are recommended to be used to enhance the value of the Site for roosting bats. A minimum of one bat box should be installed per dwelling and be located preferably on the southern/south-eastern/south-western elevations, although some northern elevations are acceptable to provide a variety of microclimates for use by roosting bats throughout the year. Bat boxes should be positioned at eaves level (at least 4 m above the ground where possible) and in locations away from direct and indirect lighting, as far as possible. Bat box positions should be agreed with an ecologist at the design stage once detailed proposals are available.
- 5.1.2 To enhance the bird nesting potential of the Site post-development it is recommended that swift bricks are incorporated into the properties at construction stage to provide enhancements for this species and other nesting bird species such as house sparrow *Passer domesticus*, starling *Sturnus vulgaris* and blue tit *Cyanistes caeruleus*. Swift bricks should be located at eaves level (at least 4 m above ground level), in less disturbed areas, out of direct sunlight avoiding south facing aspects and prevailing weather conditions, with an uncluttered adjacent flight space e.g. avoiding electricity cables, vegetation etc. There should be a minimum of one swift brick installed per dwelling although placement of swift bricks in groups to encourage species which nest in colonies should be considered. Positions of swift bricks should be agreed with an ecologist at the design stage once detailed proposals are available.
- 5.1.3 Hedgehog houses and insect towers are recommended to be placed on-site, ideally within areas of retained vegetation and out of view. The number and location of which should be decided once detailed proposals are available for the Site.
- 5.1.4 Should any closed board fencing be used as part of the proposals, holes (at least 13 cm x 13 cm) should be created to allow passage for hedgehog thereby creating “hedgehog highways” through the development, with locations to be agreed with an ecologist at the design stage once detailed proposals are available.
- 5.1.5 The final details of the above recommendations for ecological enhancement at the Site, including number and type of species-specific enhancement features, should be informed by the results of any further protected species to be undertaken where appropriate.

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Figure 1: UK Habitat Classification Map



Legend

- Site boundary
- h2a - native hedgerow
- h2a5 - species-rich native hedgerow
- w1g - Other broadleaved woodland
- g4 - modified grassland
- h3d - bramble scrub
- SC: 32 Scattered trees
- ⊙ Target Notes

- 11 - Hedgerow with trees
- 32 - Scattered trees
- 33 - Line of trees
- 103 - Horse grazed

Revision	Date	Drawn by	Checked by
A	04/09/2025	AB	JS

Drg. Ref.: 25566-ECO-1-A Scale (A4): 1:2,000

Figure 2: Designated Sites Map



Legend

- Site boundary
- 2 km buffer
- Statutory Sites (LNR)
- Non-statutory Sites (LWS)

Revision	Date	Drawn by	Checked by
A	04/09/2025	AB	JS

Map data ©2025 Imagery ©2025 Airbus, Maxar Technologies

Drg. Ref.: 25566-ECO-2-A Scale (A4): 1:27,000

Figure 3: Waterbody Map



Legend

- Site boundary
- 500 m buffer
- 250 m buffer
- 30 m buffer
- Watercourses



Revision	Date	Drawn by	Checked by
A	04/09/2025	AB	JS

Drg. Ref.: 25566-ECO-3-A Scale (A4): 1:8,000

Appendix 1: Target Notes

TN1 – Ivy covered tree

TN2 – Snowberry

TN3 – Cotoneaster sp.

Appendix 2: Site Photographs



Plate 1: Modified grassland (g4) [SC: 103 Horse grazed]



Plate 2: H1 - Other native hedgerow (h2a6) [SC: 11 Hedgerow with trees]



Plate 3: H2 - Species-rich native hedgerow (h2a5)



Plate 4: Bramble scrub (h3d)



Plate 5: H3 - Other broadleaved woodland (w1g) [SC: 33 Line of trees]



Plate 6: TN2 Snowberry (off-Site adjacent to Site boundary)



Plate 7: TN1 - Ivy covered sycamore tree (FAR) in bramble scrub [32 - Scattered trees]



Plate 8: TN3 Cotoneaster sp. (off-Site adjacent to Site boundary)

Appendix 3: Bird Species Records Summary

Common Name	Scientific Name	Status
Meadow Pipit	<i>Anthus pratensis</i>	Red
Swift	<i>Apus apus</i>	Red
Rook	<i>Corvus frugilegus</i>	Red
Cuckoo	<i>Cuculus canorus</i>	Red
Yellowhammer	<i>Emberiza citronella</i>	Red
Kestrel	<i>Falco tinnunculus</i>	Red
Curlew	<i>Numenius Arquata</i>	Red
Starling	<i>Sturnus vulgaris</i>	Red
Greenfinch	<i>Carduelis chloris</i>	Red
Skylark	<i>Alauda arvensis</i>	Amber
Goldfinch	<i>Ardea cinerea</i>	Amber
House Martin	<i>Delichon urbica</i>	Amber
House Sparrow	<i>Passer domesticus</i>	Amber
Dunnock	<i>Prunella modularis</i>	Amber
Bullfinch	<i>Pyrrhula pyrrhula</i>	Amber
Goldfinch	<i>Carduelis carduelis</i>	Green
Woodpigeon	<i>Columba palumbus</i>	Green

Swallow	<i>Hirundo rustica</i>	Green
Collared Dove	<i>Streptopelia decocto</i>	Green