

ENVIRONMENT

Miller Homes
White Lane, Sheffield

Preliminary Ecological Appraisal

ENVIRONMENT

Miller Homes

White Lane, Sheffield

Preliminary Ecological Appraisal

Birmingham
Livery Place, 35 Livery Street, Colmore Business District, Birmingham, B3 2PB
T: 0121 233 3322

Leeds
Whitehall Waterfront, 2 Riverside Way, Leeds
LS1 4EH
T: 0113 233 8000

London
11 Borough High Street
London, SE1 9SE
T: 0207 407 3879

Manchester
Westminster House, 11 Portland St, Manchester M1 3HU
0161 233 4260

Nottingham
Waterfront House, Station Street, Nottingham NG2 3DQ
T: 0115 924 1100

September 2025

DOCUMENT ISSUE RECORD

BWB Reference:		256024 _Preliminary Ecological Appraisal		
Revision	Date of Issue	Author:	Checked:	Approved:
P01	18/09/2025	Joe Travis BSc (Hons) MSc ACIEEM Ecology Team Manager	Nick Birkinshaw BSc (Hons) MSc ACIEEM	Jim MacQueen

Notice

All comments and proposals contained in this report, including any conclusions, are based on information available to BWB Consulting during investigations. The conclusions drawn by BWB Consulting could therefore differ if the information is found to be inaccurate or misleading. BWB Consulting accepts no liability should this be the case, nor if additional information exists or becomes available with respect to this scheme.

Except as otherwise requested by the client, BWB Consulting is not obliged to and disclaims any obligation to update the report for events taking place after: -

- (i) The date on which this assessment was undertaken, and
- (ii) The date on which the final report is delivered

BWB Consulting makes no representation whatsoever concerning the legal significance of its findings or the legal matters referred to in the following report.

This document has been prepared for the sole use of the Client in accordance with the terms of the appointment under which it was produced. BWB Consulting Limited accepts no responsibility for any use of or reliance on the contents of this document by any third party. No part of this document shall be copied or reproduced in any form without the prior written permission of BWB

EXECUTIVE SUMMARY

This Preliminary Ecological Appraisal (PEA) has been undertaken on behalf of Miller Homes in respect of the Site to the south of White Lane, Sheffield. The proposals for the Site comprise a residential development in excess of 200 homes, with associated hardstanding, garden spaces and public open greenspaces.

The Site comprised predominantly arable fields, bounded by hedgerows and an area of woodland associated with a brook in the centre of the Site.

The Site is located in close proximity to both statutory designated sites and non-statutory designated sites, and it is recommended that consultation is undertaken with relevant stakeholders to ensure that negative impacts to these sites do not occur as a result of the development.

The habitats on-Site are common and widespread in both a local and national aspect, with the neutral grassland and scrub offering the highest value. A full BNG assessment of the Site, including Modular River Physical (MoRPh) Survey.

The Site has potential to support a range of species including amphibians, badgers, bats, nesting birds, reptiles, hedgehogs and brown hare. With the exception of badgers and bats, no further surveys are deemed necessary to support the planning application, so long as precautionary mitigation measures are implemented.

It is recommended that an update badger walkover survey is undertaken within three months prior to the commencement of works on the Site. It is also recommended that bat activity surveys are undertaken to understand the potential impacts to local bats by the proposals. In the event any mature trees are to be lost as per the development, further survey should be undertaken for their potential to support roosting bats.

New landscaping at the Site should aim to retain and enhance as much as possible, in addition to providing new native, wildlife friendly planting. Further enhancements should be incorporated into new buildings, such as bat boxes, bird boxes, and bee bricks, in addition to hedgehog highways in new fencing. Details can be provided as the design progresses.

CONTENTS

EXECUTIVE SUMMARY	III
1. INTRODUCTION.....	6
Instruction	6
Site Description	6
The Project	7
Objectives	7
Scope of Works	7
Legislation and Planning Policy	7
2. METHODS	10
Consultation	10
UK Hab Survey	10
Survey Comments	11
3. RESULTS	12
Statutory Designated Sites	12
Non-Statutory Designated Sites	12
Ecological Networks.....	12
Habitats and Botanical Species	12
Overview.....	12
Protected / Notable Species	14
Amphibians	14
Badgers.....	14
Bats	14
Birds	15
Reptiles.....	15
Invertebrates	15
Other Species.....	15
4. EVALUATION	17
Designated Sites	17
Habitats.....	17
Species.....	17
Badgers.....	18
Bats	18
Birds	18
Reptiles.....	18

Other Species 19

5. RECOMMENDATIONS 20

Designated Sites 20

Habitats..... 20

Amphibians 20

Badgers..... 20

Bats 21

Birds 21

Reptiles..... 22

Other Species..... 22

6. CONCLUSIONS 23

7. REFERENCES 24

FIGURES

Figure 1.1: Site Location Plan

TABLES

Table 6.1: Summary

APPENDICES

- Appendix 1: Relevant Legislation
- Appendix 2: UK Hab Plan
- Appendix 3: Site Photographs
- Appendix 4: Illustrative Masterplan

1. INTRODUCTION

Instruction

- 1.1 This Preliminary Ecological Appraisal (PEA) has been undertaken on behalf of Miller Homes in respect of the Site to the south of White Lane, Sheffield. The proposals for the Site comprise a residential development in excess of 200 homes, with associated hardstanding, garden spaces and public open greenspaces.

Site Description

- 1.2 The Site is located at land in the southeastern outskirts of Sheffield. The Site itself comprised mainly agricultural fields with a wooded brook running through the centre of the Site and bounded by hedgerows. The agricultural areas of the Site had been recently ploughed on the day of the Site visit. The Site is approximately 10.53 hectares (ha) in extent and is centred on grid reference SK 39041 82801. The land is sloped from the north and south to the brook in the centre of the Site.
- 1.3 The location of the Site is shown below in **Figure 1.1**.



Basemap: Copyright Google 2025
Figure 1.1: Site Location Plan

The Project

- 1.4 The proposals for the Site comprise a residential development in excess of 200 homes, with associated hardstanding, garden spaces and public open greenspaces.
- 1.5 The following plans were provided by the client:
- Illustrative Masterplan (Appendix 4)

Objectives

- 1.6 The primary purpose of this appraisal is to provide a baseline of all ecological considerations relating to any future development proposals. This will include the identification of any potential ecological constraints and opportunities.

Scope of Works

- 1.7 The ecological appraisal was informed by a desk-based study and a Site survey. The approach to this PEA follows best practice published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2019) and the British Standards Institution (BSI, 2013). Further details are provided later in this report.

Legislation and Planning Policy

- 1.8 The following legislation relates to species and habitats that could potentially occur in association with the Site:
- The Environment Act 2021;
 - The Conservation of Habitats and Species Regulations 2017 (as amended);
 - The Wildlife and Countryside Act 1981 (as amended);
 - The Countryside and Rights of Way (CROW) Act 2000;
 - Natural Environment and Rural Communities (NERC) Act 2006;
 - The Protection of Badgers Act 1992;
 - Wild Mammals (Protection) Act 1996; and
 - The Hedgerow Regulations 1997.
- 1.9 Further information on the legislation above is provided in **Appendix 1**.
- 1.10 Consideration has also been given in this report to relevant National and Local Planning Policy as summarised below.
- 1.11 The National Planning Policy Framework (NPPF) guides Local Planning Authorities (LPAs) when developing their planning policies and considering planning applications affecting protected habitats, sites and species.
- 1.12 In respect of the natural environment, the NPPF states under Paragraph 187 that:

"Planning policies and decisions should contribute to and enhance the natural and local environment by:

- a) Protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);*
- b) Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;*
- c) Maintaining the character of the undeveloped coast, while improving public access to it where appropriate;*
- d) Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
- e) Preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and*
- f) Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate."*

1.13 The NPPF Paragraph 192 states that:

"To protect and enhance biodiversity and geodiversity, plans should:

- a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and*
- b) Promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."*

1.14 The NPPF Paragraph 193 also states that:

"When determining planning applications, local planning authorities should apply the following principles:

- a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*

- b) *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
 - c) *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons 67 and a suitable compensation strategy exists; and*
 - d) *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate."*
- 1.15 Through the NPPF and Section 40 of the Natural Environment and Rural Communities (NERC) Act, LPAs have a duty to consider habitats and species listed as being of principal importance for nature conservation in England on Section 41 (S41) of the Act when considering a planning application. In addition, the biodiversity duty of local planning authorities also covers species and habitats listed in local biodiversity action plans.
- 1.16 Additionally, the Sheffield Biodiversity Action Plan (2012) outlines several policies relating to biodiversity and greenspace, of which the Woodland Habitat Action Plan is potentially pertinent to the Site.

2. METHODS

Consultation

- 2.1 Sheffield Biological Records Centre (SBRC) and Derbyshire Biological Records Centre (DBRC) was contacted to request records of any locally designated sites and/or protected species from the Site and land within a 2km radius. However, at the time of requesting the data the RBRC was temporarily delayed. This report will be updated once BWB is in receipt of the requested information.
- 2.2 In addition, the data sources listed below were also searched to gather additional ecological data of relevance to the project, including the identification of non-designated ecologically sensitive habitats such as vegetation corridors, woodlands, watercourses and standing water.
- Multi-Agency Geographic Information for the Countryside (MAGIC);
 - Ordnance Survey 1:25,000 mapping; and
 - Aerial imagery (Google Imagery – imagery dated 2025).

UK Hab Survey

- 2.3 A Site survey was undertaken on 28th August 2025 by Joe Travis BSc (Hons) MSc ACIEEM. Joe has extensive experience in survey and site assessment for protected species and is appropriately qualified for the surveys based on the CIEEM competencies for species surveys (CIEEM, 2017).
- 2.4 The visit was completed using UK Hab survey techniques as defined in the standard methodology (UKHab Ltd, 2023).
- 2.5 The aim of the visit was to gather sufficient baseline information on the habitats within the Site in order to allow an interpretation of the ecological value of the land.
- 2.6 In addition, the methodology was extended to include a search for incidental evidence of protected/notable fauna and an assessment of the Site's potential to support protected/notable fauna. Specific consideration was given to the following species:
- Amphibians, including great crested newts (GCN);
 - Badgers *Meles meles*;
 - Bats;
 - Birds;
 - Reptiles;
 - Riparian mammals and white-clawed crayfish *Austropotamobius pallipes*; and
 - Priority Species, such as hedgehog *Erinaceus europaeus*.
- 2.7 Standard methodologies were used where applicable.

- 2.8 Habitats adjacent to the Site were viewed, where possible, from the Site boundaries in order to assess their potential to support protected species that could be utilising the survey Site.

Survey Comments

- 2.9 A Preliminary Ecological Appraisal is not usually sufficient for submission with a planning application. The survey methodology highlights habitats and features with potential for protected/notable species but is not designed to provide a comprehensive presence/absence survey. The results of any species-specific surveys recommended as a result of this appraisal should be combined with the results of this appraisal in order to give a full understanding of potential ecological impacts resulting from the development.
- 2.10 A survey at this time of year is sufficient for an experienced surveyor to categorise the habitats and assess the potential for protected species to be present, in line with the aims of the Preliminary Ecological Appraisal.
- 2.11 In line with standard guidance, the results and recommendations within this report are valid for up to two years from the date of survey, assuming there are no significant changes to the survey Site or its immediate surroundings. Updated survey work may be required to support any future planning applications outside of this time period.

3. RESULTS

Statutory Designated Sites

- 3.1 There are two statutory designated sites within 2 km of the Site, one relating to Site of Special Scientific Interest (SSSI), while the other relates to a Local Nature Reserve (LNR). The closest designated site to the Site is Moss Valley Meadows SSSI, which is located approximately 600 m south of the Site.
- 3.2 The Site falls within the SSSI Impact Risk Zone (IRZ) for Moss Valley Meadows SSSI. The Site lies within an area that indicates that impacts to the SSSI could be present for residential developments of 100 units or more, or rural residential developments of 50 or more units outside existing settlements/urban areas. As the proposals are anticipated to have in excess of 200 units, there is potential for the development to impact Moss Valley SSSI.

Non-Statutory Designated Sites

- 3.3 A total of 15 non-statutory designated sites were identified within 2 km of the Site boundary, all of which were Local Wildlife Sites (LWS). Stoneley and Charnock Woods LWS is the closest non-statutory designated site to the Site, located approximately 300 m south of the Site.
- 3.4 Due to the proximity of Stoneley and Charnock Woods LWS, there is potential for this designated site to be impacted from increased footfall in the designated site from the development.

Ecological Networks

- 3.5 The Site does not fall within any identifiable ecological networks, such as Nature Improvement Areas or GCN Strategic Opportunity Areas.

Habitats and Botanical Species

Overview

- 3.6 The UK Hab Survey Results Map with Target Notes (TNs) is provided in **Appendix 2** with accompanying habitat descriptions below, with Secondary Codes referenced within. Relevant photographs are shown in **Appendix 3**. Botanical species nomenclature follows Stace (2019).
- 3.7 The Site comprised recently ploughed arable fields, while Robin Brook flows through the centre of the Site, which is bounded by woodland and grassland along its course through the Site.
- 3.8 The boundaries of the Site and hedgerows.

c1c Cereal crops

- 3.9 The majority of the Site was defined by recently harvested and ploughed arable fields, however remnants of the crop indicate that these were likely supporting cereal crop monocultures.

w1g Other broadleaved woodland 203, 216

- 3.10 The centre of the contained other broadleaved woodland associated with Robin Brook. The woodland included a broadleaved species including oak *Quercus robur*, ash *Fraxinus excelsior*, holly *Ilex aquifolium*, hawthorn *Crataegus monogyna*, field maple *Acer campestre*, honeysuckle *Lonicera periclymenum*, alder *Alnus glutinosa* and elder *Sambucus nigra*.
- 3.11 The trees in the woodland are mostly mature (203) or over-mature, and contain a number of tear-outs of mature limbs and rot sites (216). The trees however do form a good canopy layer, leaving the understory well shaded and not supporting much new growth at the ground level.

g4 Modified grassland

- 3.12 A narrow strip of modified grassland is present in the eastern section of Robin Brook. The grassland is tall, and included species such as Yorkshire fog *Holcus lanatus* and perennial ryegrass *Lolium perenne*, as well as ruderal species such as hoary willowherb *Epilobium parviflorum*, hogweed *Heracleum mantegazzianum*, common nettle *Urtica dioica* and spear thistle *Cirsium vulgare*.

h2a6 Other native hedgerow

- 3.13 The boundaries of the Site, and internal boundaries, were defined by hedgerows. The hedgerows were continuous, with species including hawthorn, elder, holly and bramble.
- 3.14 Ground species were recently cleared in many places, however included also included common nettle, false oat-grass *Arrhenatherum elatius* and bracken *Pteridium aquilinum*.

r2b Other rivers and streams

- 3.15 Robin brook is present in the centre of the Site. The brook was in extremely low water on the day of the survey, with water levels no greater than 5 cm in depth. No plant species were present within the stream itself on the day of the survey.
- 3.16 The stream is bordered by modified grassland in the eastern section of the site, and woodland in the western section of the Site.

Protected / Notable Species

Amphibians

- 3.17 There were no ponds present on-Site at the time of the Survey. Two ponds were located within 500 m of the Site boundary, both approximately 500 m south of the Site; however, no access was possible at the time of the survey.
- 3.18 Overall, the Site offered limited suitability for amphibians, hedgerows and scrub offering suitable commuting routes, the woodland offering suitable foraging habitat and lifted roots on some mature trees offering potential refuge. The majority of the Site is arable fields that would offer extremely limited opportunities for amphibians, likely supporting monocultures of crops. The Site is bounded by roads and residential properties to the north and west, with arable land and hedgerows to the south offering some limited dispersal opportunity from the two ponds.
- 3.19 There were no European Protected Species Licence (EPSL) relating to GCN within 2 km of the Site.

Badgers

- 3.20 No evidence of badgers was found on-Site such as setts, latrines and feeding remains. The habitats, most notably the field boundaries and wooded brook, provided suitable foraging, commuting and sett building habitat for badgers, and the Site could form part of a wider territory. The Site has good connectivity to the wider landscape to the south and east for local badger populations through mature hedgerows and the woodland associated with Robin Brook.

Bats

- 3.21 A number of the mature and over-mature trees within the wooded brook had features suitable to support roosting bats, including knotholes, tear-outs and rot sites that could be large enough to support multiple bats.
- 3.22 The hedgerows in and wooded brook, were considered likely to attract a large abundance of insect prey suitable for foraging, as well as offer good commuting routes for species of bats from potential roosting sites within residential areas to the north and west, to darker foraging and commuting habitats the wider area to the south and east. The Site may be subjected to low levels of light trespass White Lane to the north of the Site, however the majority of the Site was unlit and was likely to offer good foraging and commuting opportunities.
- 3.23 No EPSLs relating to bats were recorded within 2 km of the Site boundary.
- 3.24 There were two European Protected Species Licence (EPSL) relating to bats within 2 km of the Site, both relating to the destruction of a common pipistrelle *Pipistrellus pipistrellus* resting place in 2019 (Refs: 2019-43065-EPS-MIT and 2019-43895-EPS-MIT). These were both located in the same location, approximately 1.5 km west of the Site.

Birds

- 3.25 A number of bird species were recorded during the Site visit including, carrion crow *Corvus corone*, magpie *Pica pica*, blackbird *Turdus vulgaris*, and woodpigeon *Columba palumbus*. These are all common species with no specific conservation requirements.
- 3.26 The Site offered some opportunities for foraging and breeding birds; particularly in the wooded brook and mature boundary hedgerows. These habitats are not considered to be of greater than site level importance due to the size and scale of these habitats, in conjunction with them being common and widespread in the local landscape.

Reptiles

- 3.27 The habitats on the Site were considered to be of low suitability for common reptile species, however, small areas of suitable habitat is present within the wooded brook and mature hedgerows. The hedgerows and wooded brook also offer suitable commuting routes but the developed land to the north and west act as dispersal barriers

3.28 Riparian mammals and white-clawed crayfish

- 3.29 The habitats on the Site were considered to be of low suitability for riparian mammals and white-clawed crayfish. Robin Brook is present on the Site, however the brook offers no suitability for these species, other than a potential connecting habitat for otter, due to the lack of flow and vegetation present within the water that these species prefer.
- 3.30 Given the absence of larger, more suitable watercourses for otter in the local area, it is not considered that watercourse will act as a commuting corridor between areas of greater suitability for otters. As such, given the absence of suitable habitats for the species, riparian mammals and white-clawed crayfish will not be discussed further within this report.

Invertebrates

- 3.31 The Site offers limited opportunities for invertebrate species, with the majority of the habitats on the Site comprising agricultural fields. These fields were recently ploughed on the day of the survey, however likely comprise monocultures that do not offer the varied plant structure that invertebrate species require to form diverse assemblages.

Other Species

- 3.32 The Site provided opportunities for west European hedgehogs, and the Site is adjacent to residential areas which could support small populations. The hedgerows, scrub and grassland were all considered suitable for hedgehogs.

The arable fields on the Site was considered suitable to support brown hare *Lepus europaeus*, with arable land in the wider area local area offering further suitable habitat.

Invasive and Non-Native Species

3.33 No invasive species were recorded on-Site during the surveys.

4. EVALUATION

- 4.1 This section identifies the effects on habitats and species during different stages of the development, prior to any mitigation measures.

Designated Sites

- 4.2 The Site falls within the SSSI IRZ for Moss Valley Meadows SSSI. The Site lies within an area that indicates that impacts to the SSSI could be present for residential developments of 100 units or more, or rural residential developments of 50 or more units outside existing settlements/urban areas. As the proposals are anticipated to have in excess of 200 units, there is potential for the development to impact Moss Valley SSSI.
- 4.3 Contact should be made with Natural England for advice on potential measures required to ensure that no significant impact on the SSSI occurs from the proposals.
- 4.4 Stoneley and Charnock Woods LWS is located approximately 300 m south of the Site. There is potential for this designated site to be impacted from increased footfall in the designated site from the development. It is recommended that Sheffield Council should be contacted for advice on the potential measures required to ensure that no significant impact on the LWS occurs from the proposals.

Habitats

- 4.5 The habitats on-Site are widespread and common in both a local and national aspect, with the highest value habitats being the woodland brook.
- 4.6 Any development of the Site should seek to retain the woodland brook and boundary hedgerows wherever possible, in line with the mitigation hierarchy. Where habitats can't be retained, they should be replaced through new landscaping at the Site.
- 4.7 A full Biodiversity Net Gain (BNG) assessment, including a Modular River Physical (MoRPh) survey for the brook running through the centre of the Site, must be undertaken to ensure the proposed development achieves a minimum 10% gain.
- 4.8 Without suitable mitigation in place, the impacts on habitats both on and off-Site could be significant.

Species

Amphibians

- 4.9 The Site has limited potential to support GCN due to the absence of suitable breeding ponds within 500 m of the Site. However, due to the potential presence of garden ponds in nearby residential properties, the presence of common amphibians in their terrestrial phases cannot be ruled out on the Site. The development of the Site is likely to result in the loss of suitable, albeit of low quality agricultural land, terrestrial habitats for common amphibians.

- 4.10 Due to limited potential of the habitats on the Site and pond connectivity in the wider area, a precautionary approach to common amphibians is considered suitable during the development of the Site.

Badgers

- 4.11 No evidence of badgers was recorded on-Site during the survey, however, the Site is well connected to suitable habitat to the south and east, and as such could form part of a wider badger territory. The development of the Site will result in a loss of suitable foraging land and habitat fragmentation for badgers.
- 4.12 A precautionary approach including a pre-commencement badger walkover should be undertaken prior to development.

Bats

- 4.13 The trees within the woodland on the Site are mature and over-mature in places, and offering a range of Potential Roosting Features (PRFs) for local bats. Additionally, the Site is bounded by residential properties to the north and west which could support active roosts, and the Site is unlit and provides connectivity to the wider landscape, with foraging and commuting routes off-Site to the south and east.
- 4.14 Without mitigation in place there is a chance to directly harm bats, through the loss of roosting features in addition to suitable foraging and commuting habitat. Any retained habitats on the Site also are likely to be reduced in suitability due to increased disturbance through artificial lighting that will be present post-development.

Birds

- 4.15 The Site offers suitable habitat for nesting birds, and offers further suitable habitat for foraging/hunting, and commuting birds including raptor species.
- 4.16 Without mitigation in place there is a chance that nesting birds will be directly impacted through the loss of nesting habitats and further impacted indirectly through the loss of habitat and increased disturbance from the proposed development. A precautionary approach is recommended during the construction phase.

Reptiles

- 4.17 The habitats on-Site are considered to be sub-optimal for reptiles; however, the Site offers suitable foraging / commuting habitat while mature tree roots within the woodland may offer suitable sheltering and hibernation opportunities.
- 4.18 Due to limited suitable habitat and connectivity in the wider area, a precautionary approach to reptiles is considered suitable during the development of the Site.

Other Species

- 4.19 The development of the Site is likely to reduce suitable habitat for both hedgehogs and brown hare, and both species could be directly harmed during the construction phase.
- 4.20 Without suitable mitigation in place, the impacts are considered likely to impact directly on both species.
- 4.21 No invasive species were recorded on-Site, such that no further assessment is required.

5. RECOMMENDATIONS

Designated Sites

- 5.1 The Site falls within the SSSI IRZ for Moss Valley Meadows SSSI. The Site lies within an area that indicates that impacts to the SSSI could be present for residential developments of 100 units or more, or rural residential developments of 50 or more units outside existing settlements/urban areas. As the proposals are anticipated to have in excess of 200 units, there is potential for the development to impact Moss Valley SSSI.
- 5.2 Contact should be made with Natural England for advice on potential measures required to ensure that no significant impact on the SSSI occurs from the proposals.
- 5.3 Stoneley and Charnock Woods LWS is located approximately 300 m south of the Site. There is potential for this designated site to be impacted from increased footfall in the designated site from the development. It is recommended that Sheffield Council should be contacted for advice on the potential measures required to ensure that no significant impact on the LWS occurs from the proposals.

Habitats

- 5.4 It is recommended that a full BNG assessment of the Site be undertaken, including a MoRPh survey to determine the baseline value in relation to the proposed development. This will require landscaping details; however, a collaborative process is recommended to ensure targets are met.
- 5.5 Due to the presence of Robin Brook in the centre of the Site, pollution prevention measures should be implemented to reduce the likelihood of indirect impacts to the brook.

Amphibians

- 5.6 There are no ponds within 250 m of the Site, with the closest ponds approximately 500 m south of the Site and associated with Carter Hall Fisheries, and as such is likely to be stocked with large fish and therefore highly unlikely to support GCN. As such, GCN are not considered to be a receptor to the works and will not be discussed further within this report.
- 5.7 As the potential for small garden ponds cannot be ruled out from adjacent residential gardens, the potential of common amphibian species to be associated with the Site cannot be dismissed. As such, a precautionary approach to common amphibians is considered suitable to support the planning application, with toolbox talks and a general awareness of the small chance of common amphibians being present on the Site by contractors.

Badgers

- 5.8 It is possible that the Site forms part of a wider badger territory, though no direct evidence was recorded on-Site. As such, it is recommended that an update badger

walkover is undertaken prior to the commencement of works on the Site to ensure that no new setts have been established on the Site in the interim period.

- 5.9 As best practice, it is recommended that no trenches be left open overnight, or alternatively a ramp is provided to ensure any trapped animals can escape.

Bats

- 5.10 Mature trees associated with Robin Brook have a number of Potential Roosting Features (PRFs) for local bats. It is recommended that these trees are retained as part of the proposals to safeguard these habitats. In the event that this is not possible, Ground Level Tree Assessments (GLTAs) should be undertaken of trees scheduled for removal to gain an understanding of their suitability for roosting bats. Dependant on the findings of the GLTAs, the trees may require further surveys via aerial inspections or nocturnal emergence surveys, or may be able to be removed under best practice measures if not considered to offer roosting opportunities for greater than individual/small numbers of bats.
- 5.11 The Site is considered to offer 'Moderate' suitability for foraging and commuting bats, and the development may cause fragmentation of habitats for bats from existing roost sites in the local residential areas to the north and west, to the greenspace foraging and commuting habitats on the Site and further to the south and east. As such, it is recommended in line with good practice guidance (Collins, 2023) that monthly static detector surveys should be implemented and supported by seasonal transect surveys between April and October.
- 5.12 Static detectors should be deployed on areas that are likely important to local bats, such as the wooded brook and mature hedgerows for a minimum of five-consecutive nights each month between April and October inclusive. The seasonal transect surveys should comprise a single walkover survey per season, the walking of the Site for a minimum of two hours following sunset. These should be undertaken for spring (April and May), summer (June to August inclusive) and autumn (September and October) in appropriate weather conditions.
- 5.13 Furthermore, the Site should aim to incorporate sensitive lighting following the latest good practice guidelines for Bats and Artificial Light at Night (2023). Furthermore, bat boxes should be incorporated into the design of new buildings or alternatively attached to retained trees at the Site. The location, number and specification of boxes can be provided as the detailed design progresses.

Birds

- 5.14 The Site contains suitable habitat for nesting birds, and as such any removal of vegetation, should be done with nesting birds in mind, ideally outside of the active nesting season (March – August, inclusive), however, if this is not possible, clearance works should be done under a watching brief by a suitably qualified ecologist, to ensure that no nesting birds are present. If significant numbers of ground nesting birds are present during the works, further assessment may be required.

- 5.15 New landscaping at the Site should incorporate fruiting species to provide foraging resource for birds, in addition to nesting opportunities as trees mature. Furthermore, nest boxes should be incorporated into the design of new buildings or alternatively attached to any retained trees at the Site. The location, number and specification of boxes can be provided as the detailed design progresses.

Reptiles

- 5.16 Any vegetation clearance at the Site, should be done with an awareness of the potential presence of reptiles, including.
- A toolbox talk given to contractors ahead of clearance works, detailing species of reptiles, field signs and precautions required.
 - An initial check of areas prior to clearance to ensure no reptiles are present, prior to an initial cut to 15 cm, starting from the inside and moving out towards the boundaries of the Site to allow any species chance to escape;
 - Should any reptiles be found during works, then all works must cease, and the ecologist be contacted for further assessment.
- 5.17 New landscaping at the Site should be designed with an awareness of reptiles, incorporating refugia and log piles, in addition to the retention existing watercourses and woodland (where possible) to provided commuting, resting and foraging opportunities.

Other Species

- 5.18 Any vegetation clearance during the proposed works, should be done with an awareness of the potential presence of wildlife, including hedgehogs and brown hare. Should any species be found during works, then all works must cease, and the ecologist be contacted for further assessment.
- 5.19 To further enhance the Site for hedgehogs, provision should be made for scrub, hedgerows, and grassland planting at the Site, in addition to strategic placed hedgehog highways within residential fencing to facilitate movement across the Site for the species.

6. CONCLUSIONS

6.1 The findings of this PEA are summarised in **Table 6.1** below.

Table 6.1: Summary

Ecological Receptor	Results & Discussion	Recommendations
Designated Sites	Potential impacts to both statutory and non-statutory designated sites within close proximity to the Site.	Requires consultation with Natural England regarding statutory designated sites, and Sheffield Council regarding non-statutory designated sites.
Habitats	The habitats on-Site are common and widespread in both a local and national aspect, with the woodland offering the highest value.	A full BNG assessment including MoRPh survey once detailed plans are provided. It is recommended that the woodland and hedgerows are retained and protected. Pollution prevention measures to be implemented to reduce the likelihood of indirect impacts on Robin Brook.
Amphibians	No ponds within 250 m of the Site	Precautionary approach for common amphibians during construction.
Badgers	Suitable habitat on-Site.	Pre-commencement badger survey
Bats	Site offers suitability for roosting bats within mature trees on Robin Brook Site has suitable habitat for foraging and commuting.	Ground Level Tree Assessments (GLTAs) for any mature trees that are likely to be lost to facilitate the proposals. Survey for bat activity comprising monthly static bat detector surveys and seasonal transect surveys. Sensitive lighting design and retention of boundary features as dark corridors.
Birds	Potential loss of nesting habitat.	Nesting bird checks prior to vegetation clearance (March – August, inclusive)
Reptiles	Low potential for reptiles.	Precautionary approach to vegetation clearance
Other Species	Potential for hedgehogs and brown hare.	Precautionary approach to vegetation clearance and enhancement measures
	Invertebrates.	Landscaping should seek to include foodplants for locally recorded BAP species.

7. REFERENCES

- British Standards Institution (2013) BS42020:2013 Biodiversity – code of practice for planning and development. BSI Standards Ltd, London.
- Chartered Institute of Ecology and Environmental Management (2019) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine. CIEEM, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017) Guidelines for Ecological Report Writing. CIEEM, Winchester.
- Chartered Institute of Ecology and Environmental Management (2017) Guidelines for Preliminary Ecological Appraisal. CIEEM, Winchester.
- Chartered Institute of Ecology and Environmental Management (2020) Guidelines for accessing, using and sharing biodiversity data in the UK. CIEEM, Winchester.
- Collins J. (ed) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th Edition). Bat Conservation Trust, London.
- Institute of Lighting Professionals and Bat Conservation Trust (2023) Bats and Artificial Light at Night – Guidance Note 08/23.
- Ministry of Housing, Communities and Local Government (2024) National Planning Policy Framework. ISBN: 978-1-4098-5302-2.
- Multi-Agency Geographic Information for the Countryside Website.
- Stace, C.S. (2019) New Flora of the British Isles, 4th edition. University Press, Cambridge
- Stanbury, A.J., Eaton, M.A., Aebischer, N.J., Balmer, D., Brown, A.F., Douse, A., Lindley, P., McCulloch, N., Noble, D.G. & Win, I (2021) The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds Volume 114:723–747.
- UK Hab Ltd (2023) UK Habitat Classification Version 2.0.
- Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. British Birds 114: 723-747. Available online at <https://britishbirds.co.uk/content/status-our-bird-populations>

APPENDICES

Appendix 1: Relevant Legislation

The following text provides information on the key legislation, which is applicable to this survey.

The main wildlife legislation relevant in the UK is as follows:

European Legislation

The relevant sections of the EC Directives and international conventions are summarised below:

- EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitat Directive 1992) as amended (92/43/EEC)

The Directive requires Member States to introduce a range of measures including the protection of species listed in the Annexes. The 189 habitats listed in Annex I of the Directive and the 788 species listed in Annex II, are to be protected by means of a network of sites. Once adopted, these are designated by Member States as Special Areas of Conservation (SACs), and along with Special Protection Areas (SPAs) classified under the EC Birds Directive. The Habitats Directive introduces the precautionary principle; that disturbance to the designated sites can only be permitted having ascertained no adverse effect on the integrity of the Site.

- EC Directive on the Conservation of Wild Birds (Birds Directive 1979) as amended (79/409/EEC)

The main provisions of the Directive includes; the maintenance of the favorable conservation status of all wild bird species across their distributional range.

- Bern Convention on the Conservation of European Wildlife and Natural Habitats (1979)

The Convention imposes legal obligations on contracting parties, protecting over 500 wild plant species and more than 1000 wild animal species.

UK Legislation

The sections of UK legislation considered to be of relevance include:

- The Environment Act 2021

This legislation was revised in response to the Levelling-up and Regeneration Bill: reforms to national planning policy consultation on 19 December 2023 and sets out the government's planning policies for England and how these are expected to be applied. The Act mandates the requirement of 10% net gains for biodiversity and as such should be the aim of all new developments.

- The Conservation (Natural Habitats, and c.) Regulations 2017 (as amended)

This transposes the Habitats Directive into national law. The Regulations provide for the designation and protection of 'European sites', and the protection of 'European protected species.

- The Wildlife and Countryside Act 1981 (as amended) (WCA)

This consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive) in Great Britain.

- The Countryside and Rights of Way Act 2000 (CRoW)

This act strengthens wildlife enforcement legislation.

- Natural Environment and Rural Communities Act 2006 (NERC Act)

This act formed Natural England which places a duty on all public authorities, including local planning authorities to consider biodiversity. This Act also requires a list of species of habitats composed by the Secretary of State to help provide specific conservation targets. These species are known as Priority Species or Species of Principal Importance (SPI). These habitats are known as Priority habitats or Habitats of Principal Importance (HPI). Both SPI and HPI are listed under Section 41 of this Act. The NPPF also affords protection to these HPI's and SPI's.

- The Protection of Badgers Act 1992

This act affords protection to badgers and their setts including the destruction or obstructing access to a sett.

- Wild Mammals Protection Act 1996

This act provides protection to all wild species of mammal in the UK and is more related to mammal welfare but is directly applicable during any site clearance or other works to a site which could harm mammals.

- The Hedgerow Regulations 1997

The regulations require landowners to notify local planning authorities if they want to remove a hedgerow that is over 20 metres long or that joins another hedgerow. The authorities can prohibit the removal of a hedgerow if it is important from archaeological, historical, landscape or wildlife perspectives.

Species-Specific Legislation

Species specific legislation is provided in the following Table:

Species Groups	Legislation	Restrictions
Amphibians, including Great Crested Newt (GCN)	Sch. 5 and Sch. 9 Wildlife and Countryside Act 1981 (as amended). Conservation of Habitats and Species Regulations 2017 (as amended). Countryside and Rights of Way Act 2000.	It is an offence to: • Sell; • Transport; • Advertise for sale. For GCN, as above but includes: • Kill; • Injure; • Disturb; • Destroy or obstruct access to any place used for rest or shelter.

Badgers	The Protection of Badgers Act 1992.	It is an offence to: • Wilfully kill, injure, take, or cruelly ill-treat a badger, or attempt to do so; • Possess any dead badger or any part of, or anything derived from, a dead badger; • Intentionally interfere with a sett by disturbing badgers whilst they are occupying a sett, damaging or destroying a sett, causing a dog to enter a sett, or obstructing access to it. A badger sett is defined in the legislation as "any structure or place, which displays signs indicating current use by a badger".
Bats	Sch. 5 Wildlife and Countryside Act 1981 (as amended). Conservation of Habitats and Species Regulations 2017 (as amended).	It is an offence to: • Intentionally or deliberately kill, injure or capture (or take) bats; • Deliberately disturb bats (whether in a roost or not); • Disturb roosting bats or obstruct access to their roosts; • Damage or destroy bat roosts.
Birds	Wildlife and Countryside Act 1981 (as amended). Sch. 1 Wildlife and Countryside Act 1981 (as amended).	It is an offence to: • Kill; • Injure; • Take any wild bird, their eggs or nest (with the exception of those on Sch. 2). As above but includes: • Disturbing birds at their nest, or their dependent young.
Reptiles	Sch. 5 Wildlife and Countryside Act 1981 (as amended). Countryside and Rights of Way Act 2000.	It is an offence to: • Kill; • Injure; • Sell. For Smooth Snake and Sand Lizard, as above but includes: • Disturb; • Damage; • Destroy or obstruct access to any place used for rest or shelter.
Hedgehogs and Other Mammals	SPI – Section 41 NERC Act. Wild Mammals Protection Act 1996.	Protection from harm, injury intent to harm.

Otter	Sch. 5 Wildlife and Countryside Act 1981 (as amended). Conservation of Habitats and Species Regulations 2017 (as amended).	It is an offence to: • Intentionally or deliberately kill, injure or capture (or take); • Deliberately disturb; • Disturb or obstruct access to their place of rest or shelter; • Damage or destroy place of rest or shelter; • Possess, control or transport alive or dead.
Water Vole	Sch. 5 Wildlife and Countryside Act 1981 (as amended).	It is an offence to: • Kill; • Injure; • Take; • Possess or control alive or dead; • Disturb or obstruct access to their place of rest or shelter; • Damage or destroy place of rest or shelter.
Plants	Sch. 8 Wildlife and Countryside Act 1981 (as amended). Some species are SPI - Section 41 NERC Act.	It is an offence to: • Pick; • Uproot; • Trade; • Possess (for trade) any wild plant listed.
Invasive Species (Animal and Plant)	Sch. 9 Wildlife and Countryside Act 1981 (as amended).	It is an offence to: • Release of any animal, plant or microorganism not native to the UK; • Sell; • Cause or allow to spread.

Protected Sites

A network of protected sites, at varying levels, have been put in place across the UK. Further details are provided below;

International Importance

- Natura 2000

Natura 2000 is the name of the European Union-wide network of nature conservation-sites established under the EC Habitats and Birds Directives. This network will comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

- Special Areas of Conservation (SAC)

SACs are designated under the EC Habitats Directive. The Directive applies to the UK and the overseas territory of Gibraltar. SACs are areas which have been identified as best representing the range and variety within the European Union of habitats and (non-bird) species listed on Annexes I and II to the Directive. SACs in terrestrial areas and territorial marine waters out to 12 nautical miles are designated under the Conservation (Natural Habitats, &c.) Regulations 1994 (as amended).

New and/or amended Habitats Regulations are shortly to be introduced to provide a mechanism for the designation of SACs and SPAs in UK offshore waters (from 12-200 nm).

National Importance

- Sites of Special Scientific Interest (SSSI)

The SSSI series has developed since 1949 as the national suite of sites providing statutory protection for the best examples of the UK's flora, fauna, or geological or physiographical features. Most SSSIs are privately-owned or managed; others are owned or managed by public bodies or non-government organisations. The SSSIs designation may extend into intertidal areas out to the jurisdictional limit of local authorities, generally Mean Low Water in England and Northern Ireland; Mean Low Water of Spring tides in Scotland. In Wales, the limit is Mean Low Water for SSSIs notified before 2002, and, for more recent notifications, the limit of Lowest Astronomical Tides, where the features of interest extend down to LAT. There is no provision for marine SSSIs beyond low water mark. Originally notified under the National Parks and Access to the Countryside Act 1949, SSSIs have been renotified under the Wildlife and Countryside Act 1981. Improved provisions for the protection and management of SSSIs were introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and the Nature Conservation (Scotland) Act 2004.

Regional/Local Importance

- Wildlife Sites

Local authorities for any given area may designate certain areas as being of local conservation interest. The criteria for inclusion, and the level of protection provided, if any, may vary between areas. Most individual counties have a similar scheme, although they do vary.

These sites, which may be given various titles such as 'Listed Wildlife Sites' (LWS), 'County Wildlife Sites' (CWS), 'Local Nature Conservation-sites' (LNCS), 'Sites of Importance for Nature Conservation' (SINCs), or 'Sites of Nature Conservation Importance' (SNCIs), together with statutory designations, are defined in local and structure plans under the Town and Country Planning system and are a material consideration when planning applications are being determined.

Appendix 2: UK Hab Plan



Legend

 Site Boundary

Area Habitats

 c1c - Cereal crops

 g4 - Modified grassland

 w1g - Other broadleaved woodland

Linear Habitats

 h2a6 - Other native hedgerow

 r2b - Other rivers and streams

0 50 100 150 200 m



BWB

Miller Homes

White Lane, Sheffield

Appendix 2
UK Hab Plan

Appendix 3: Site Photographs



Photograph 1: Recently ploughed field



Photograph 2: Example of tree with Potential Roosting Features (PRFs) for bats



Photograph 3: Example of grassland by Robin Brook



Photograph 4: Example of hedgerows

Appendix 4: Illustrative Masterplan



DEVELOPMENT SUMMARY

- 1 PRIMARY VEHICULAR ACCESS FROM WHITE LANE
- 2 LARGE AREA OF OPEN SPACE IN A CENTRAL LOCATION
- 3 RETAINED HEDGEROW SET IN A GREEN CORRIDOR
- 4 PROPOSED GREEN SPACE
- 5 PROPOSED ORANGE BUSH
- 6 PROPOSED ACTIVE TRAVEL ROUTES
- 7 RETAINED AND ENHANCED BOUNDARY PLANTING
- 8 PRIMARY HIGHWAY INCLUDES A PLANTED VERGE WITH SPACE FOR TREES TO CREATE AN ATTRACTIVE BOULEVARD
- 9 OUTWARD FACING DEVELOPMENT PARCELS ENSURE ACTIVE FRONTAGE THROUGHOUT THE PROPOSAL
- 10 PROPOSED PEDESTRIAN AND CYCLE LANE
- 11 POTENTIAL SECONDARY/EMERGENCY VEHICULAR ACCESS
- 12 INTERNAL FOOTPATH 1.8M TO 1.8M (SOUTH) AND EXISTING FOOTPATH TO THE WEST (SUBJECT TO SURVEY)

