

Land off Brook House Lane, Shelley

Huddersfield

Preliminary Ecological Appraisal and  
Baseline Biodiversity Net Gain Report

2026

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# Executive Summary

## Development Details

The client is proposing residential development at Land off Brook House Lane, Shelley Huddersfield, hereafter referred to as the 'site'.

This report describes the ecological features of the site and its surroundings and assesses the potential impacts of the development on the ecological features. Recommendations are provided so that the development is compliant with biodiversity policy and legislation.

## Ecological Interest

Ecological features of interest include a stream running along the eastern boundary and trees with potential bat roosting features.

## Outcomes

The proposed development could impact on bats and their roosts, should these be present. Further survey work is required to establish the status of roosting bats and inform mitigation requirements if the roosting features will be affected by proposals.

Mitigation in the form of provision and enforcement of Reasonable Avoidance Measures (RAMs) are considered sufficient to avoid the risk of harming amphibians, Badger and Hedgehog.

Measures to prevent the spread of invasive non-native species during construction should be included within the CEMP. Suitable measures to prevent the risk of pollution should also be included in the CEMP.

Impacts on nesting birds should be avoided by carrying out site clearance outside of bird breeding season. Should work be undertaken during the season, a nesting bird check would be required.

Good practice guidelines should be followed to ensure sediment transfer and pollution spills do not occur. A lighting strategy should be adopted which minimises light trespass into adjacent river habitats.

The baseline habitat value within the redline development is 2.95 area units, 0.03 linear units and 0.16 watercourse units. The development will incur the loss of a number of habitats on site, and has a unit deficit of 3.24 habitat units, which would need to be achieved in order to meet 10% net gain. Compensation on site to achieve the required net gain should include retention, to the fullest extent possible, of individual trees on site and the removal of watercourse encroachment incurred by trash and overgrown vegetation within the stream.

# 1. Introduction

## 1.1 Project Brief

- 1.1.1 Rachel Hacking Ecology Limited (RHE) was commissioned in 2025 by Julia Lees (G & R Estates) (the Client) to carry out an Updated Ecological Appraisal and Baseline Biodiversity Assessment of land at Brook House Lane, Shelley Huddersfield (the 'site'). The site is located at O.S. grid reference: SE 20681 10562 (see Figure 1).



Figure 1. Map showing the location of the site © Bing Maps

- 1.1.2 The proposed development site is currently a vacant plot of land. An active car park, which services Barncliffe Mills, lies directly adjacent to the east. The site is surround by sheep-grazed pasture to the west and north, and by residential garden to the south. Within the broader landscape, the site is in a rural area, surrounded mostly by agricultural land, with the settlement of Shelley to the north.

### Description of Development

- 1.1.3 The site will be the subject of a planning application for the construction of residential development with associated access and landscaping.

### Relevant Planning History

- 1.1.4 Surveys were undertaken as part of the preparation for a planning application to extend the adjacent car park in 2023, although this was never submitted.

1.1.5 A number of planning applications have been submitted on the adjacent Barncliffe Mills complex over recent years, including one regarding the importation of inert waste and infill of shallow water collection areas (Ref.2019/62/91542/E0). The ecological impact assessment undertaken as part of this application gives some context to ponds which are located within 250m of the site<sup>1</sup>.

## 1.2 Scope of Work

1.2.1 The Client commissioned RHE to carry out the following works:

- Desk-based study to obtain details of designated sites, protected and notable species within a specified search area.
- Record the extent, type, and condition of habitats within and adjacent to the site.
- Calculate the baseline biodiversity units.
- Search for signs of protected species and undertake an assessment of the potential of habitats and features to support protected and notable species.

## 1.3 Site Visit Information

### Surveyor Details

1.3.1 Matthew Bottomley (Senior Ecologist) undertook the survey on 14<sup>th</sup> January 2025. Matthew has over 3<sup>rd</sup> years professional experience undertaking similar surveys. The report has been approved by Tim Palmer (Principal Ecologist) MCIEEM.

### Weather

1.3.2 The weather at the time of survey was cool and dry; conditions were appropriate for a full assessment to be undertaken.

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<sup>1</sup> Ecological/Biodiversity Statement [id 793493] Size: 6.7MB 11/02/2020 - Ecological Impact Assessment. Available at: <https://www.kirklees.gov.uk/beta/planning-applications/search-for-planning-applications/detail.aspx?id=2019/91542>

## 2. Methods

### 2.1 Desk Study

- 2.1.1 The Magic website (Multi-Agency Geographical Information for the Countryside) was interrogated for the presence of Statutory Designated Sites (and European Protected Species licences) within a 2km radius of the site.
- 2.1.2 The site was checked to determine if it is located within an Impact Risk Zones for any Site of Special Scientific Interest (SSSI) and if so, whether the Local Planning Authority will need to consult Natural England.
- 2.1.3 The local environmental record centre (West Yorkshire Ecology Service) was contacted to provide details of non-statutory designated sites and records of protected and notable species within a 2km radius of the site.

### 2.2 Field Survey

#### UKHab Baseline Survey

- 2.2.1 The site was walked over and the habitats and features of ecological interest were mapped and described according to the UK Habitat Classification system<sup>2</sup>. Habitats and features of particular interest were target noted.
- 2.2.2 During the walkover habitat and features were assessed for their suitability to support protected and notable species in accordance with CIEEM guidelines<sup>3,4</sup>. Field signs of protected, notable, and invasive non-native species, if encountered, were mapped, and described.
- 2.2.3 Matthew Bottomley undertook the River Condition Assessment (RCA) of the watercourse. Matthew is an RCA accredited surveyor.

#### Bats

- 2.2.4 Any trees on the site that are to be affected by the proposals were subject to a ground-level assessment, searching for Potential Roosting Features (PRF's), such as flaking bark, woodpecker holes, knot holes and limb splits.

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<sup>2</sup> UKHab-v2.01-July-2023-Final-2.pdf. at <http://UKhab.org>

<sup>3</sup> Collins, J. (Ed.) (2023) *Bat Surveys for Professional Ecologists-good practice guidelines*. 4<sup>th</sup> edn. The Bat Conservation Trust, London.

<sup>4</sup> Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.

2.2.5 Interpretation of survey findings and assessment of roosting potential was undertaken using professional judgement and criteria described in published guidance<sup>5</sup>. Trees were categorised in accordance with the criteria shown in the tables below.

**Table 4.2. Guidelines for assessing the suitability of trees on proposed development sites for bats, to be applied using professional judgement.**

Suitability	Description
NONE	Either no PRFs in the tree or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree
PRF	A tree with at least one PRF present

**Table 6.2. Guidelines for categorising the potential suitability of PRFs on a proposed development site for bats, to be applied using professional judgement.**

Suitability	Description
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.

Figure 2 showing classification system for trees and PRF's courtesy of Collins, J. (ed.) (2023)

## 2.3 Biodiversity Net Gain

2.3.1 During the site walkover the ecological condition of each habitat was assessed in accordance with the Defra (2024) guidelines<sup>6</sup>.

2.3.2 Habitat data including type, area (or length), condition and strategic location were uploaded to the Defra Statutory Biodiversity Metric Calculator spreadsheet to determine the baseline value of the site.

## 2.4 Mitigation Hierarchy

2.4.1 Mitigation measures should be embedded within the masterplan design and planning application process. Measures during the construction phases should be included in a Construction Environmental Management Plan: Biodiversity (CEMP). This process from proposal to implementation needs to consider the 'mitigation hierarchy' of avoid, reduce, compensate, and enhance:

- Aim to avoid negative effects through the design process.
- Mitigate if negative effects cannot be avoided.
- Use compensation measures to offset residual impacts.
- Identify and implement opportunities to enhance biodiversity.

<sup>5</sup> Collins, J. (Ed.) (2023) *Bat Surveys for Professional Ecologists-good practice guidelines*. 4<sup>th</sup> edn. The Bat Conservation Trust, London.

<sup>6</sup> The\_Statutory\_Biodiversity\_Metric\_-\_User\_Guide\_.pdf (publishing.service.gov.uk)

## 3. Results

### 3.1 Survey Constraints

- 3.1.1 Field survey results are valid for a limited duration, and no investigation can provide a complete description and characterisation of a site. The composition of habitats and species can change depending on environmental variables and the mobility of species, so the results of a study become less reliable over time. In some cases, surveys that are 3 years old may be acceptable for a project assuming that habitats have not significantly changed in the intervening period, but for protected species it is likely that survey data will need to be no more than 18 months old.
- 3.1.2 Whilst the survey was undertaken at a sub-optimal time of year for botanical interest, the plant species diversity was low when assessed in 2023, and conditions are considered unlikely to have changed significantly. A representative species list was still able to be obtained, and survey timing is not considered to be a significant constraint. The site was fully accessible and conditions were appropriate for a full survey to be undertaken

### 3.2 Designated Sites

- 3.2.1 The Kirklees Council Local Plan and data search provided information on the non-statutory designated sites and these are listed below in Table 1. No statutory designated sites are present within 2km of the site.

Name	Status	Location/distance	Interest
Yew Tree Wood	Local Wildlife Site (LWS)	0.66km South	Acid woodland surrounded by improved grassland and cereal crop fields.
Gelder Wood	LWS	0.75km West	Ancient replanted woodland with abundant <i>Fagus sylvatica</i> , frequent <i>Acer pseudoplatanus</i> , <i>Ulmus glabra</i> and occasional <i>Quercus robur</i> .
Shepley Mill Wood	LWS	1.3km West	Ancient replanted woodland with abundant <i>Quercus petraea</i> , frequent <i>Fagus sylvatica</i> , occasional <i>Acer pseudoplatanus</i> and rarely occurring <i>Betula</i> spp. in the canopy.
Shelley Wood	LWS	1.31km North-west	Ancient semi-natural woodland with <i>Quercus robur</i> , <i>Quercus petraea</i> and <i>Fagus sylvatica</i> in the canopy, with occasional <i>Betula pubescens</i> and <i>Sorbus aucuparia</i> . Pond to the eastern edge which is fed by a local stream.

Lower Jane Well	LWS	1.61km South	Two small fields located close to the A635. The fields contain MG5 grassland.
Allen Wood	LWS	1.8km North	An ancient semi-natural woodland with a reasonably species rich ground flora and a <i>Quercus/Betula</i> canopy.
Upper and Lower Stone Woods	Local Geographical Site (LGS), LWS	1.81km West	Large ancient semi-natural woodland separated by a railway line. Species include abundant <i>Quercus petraea</i> and occasional <i>Betula pubescens</i> , <i>Acer pseudoplatanus</i> and <i>Fagus sylvatica</i> in the canopy.

3.2.2 The desk study identified that the site was located within the Impact Risk Zones of Dark Peak SSSI (Site of Special Scientific Interest). Due to the nature of the proposals, the development will not require the Local Planning Authority to consult with Natural England.

### 3.3 Habitats

3.3.1 The habitats survey plan is contained in Appendix 2. The target notes and photographs referenced throughout this section are contained in Appendix 3. Condition assessments are supplied as a separate spreadsheet, which includes the MoRPh outputs<sup>7</sup>.

#### Bare Ground

3.3.2 Much of the site consists of bare ground, with a rubble substrate (Ref.1). Some ephemeral species are present locally, though not enough to warrant a higher-level habitat designation.

#### Ruderal / Ephemeral

3.3.3 Along select areas of the site border, an ephemeral vegetation layer has succeeded the bare ground (Ref.4). No one species dominates, with species present including Shining Cranebill *Geranium lucidum*, Hairy Bittercress *Cardamine hirsuta*, White Clover *Trifolium repens*, and Dandelion *Taraxacum* agg. Common Nettle *Urtica dioica*, Common Ragwort *Senecio jacobaea* and Cleavers *Galium aparine* each are present in localised stands and are locally dominant.

#### Tall Forbs

3.3.4 A ring of tall ruderal species surrounds much of the southern portion of the site, covering most of the existing embankment (Ref.6). The habitat is largely dominated by Common Nettle, with stands of Creeping Thistle *Cirsium arvense*, Broad-leaved Dock *Rumex obtusifolius* and Willowherb *Epilobium* spp. locally dominant.

<sup>7</sup> RHE.3840 Condition Assessment Sheet at Brook House Lane, Shelley 2026

#### Bramble Scrub

- 3.3.5 Bramble Scrub borders most of the western boundary of the site, running along the dry ditch and watercourse (Ref.5). Whilst Bramble *Rubus fruticosus* agg. dominates, English Ivy *Hedera helix*, Herb Robert *Geranium robertianum*, Cleavers and Nettles are present amongst the ground flora in places.

#### Mixed Scrub

- 3.3.6 To the north-east of the site, a band of mixed scrub exists, dominated by Hawthorn *Crataegus monogyna* (Ref.2). Some Bramble is present in places, whilst sporadic ground flora consists of Teasel *Dipsacus fullonum*, Purple Toadflax *Linaria purpurea*, Herb Robert and English Ivy.

#### Modified Grassland

- 3.3.7 An early successional grassland has formed across the formerly bare substrate, colonised almost entirely by Yorkshire Fog *Holcus lanatus*. White Clover *Trifolium repens*, Bristly Oxtongue *Helminthotheca echioides*, Spear Thistle *Cirsium vulgare* and Teasel are also present in places, though sporadic (Ref.7).

#### Spoil

- 3.3.8 The site has been used to store rubble, building waste and defunct machinery, with large piles of spoil present in places (Ref.3). Most of the spoil is bare, though bryophytes and ephemeral species have colonised in places. This habitat is recorded as Vacant or Derelict Land within the statutory metric.

#### Individual Trees

- 3.3.9 Semi-mature and early-mature trees are located along the site boundaries (Refs. 11, 12). Species include Ash *Fraxinus excelsior*, Field Maple *Acer campestre*, Pedunculate Oak *Quercus robur* and Cherry *Prunus avium*. In total, 20 small trees and 6 medium trees were recorded.

#### Non-native and Ornamental Hedgerow



- 3.3.10 A Cypress species *Chamaecyparis/Cupressocyparis* spp. hedgerow is located along the south-eastern boundary of the site (Ref.8).

#### Dry Ditch

- 3.3.11 A small section of dry ditch runs along the western boundary (Ref.9). The ditch is largely bare, with no marginal vegetation or vegetation in channel, and is free from watercourse encroachment. The riparian zone on both banks is also subject to major encroachment on both sides; the land is intensively grazed on the west bank, and to the east the bank has been littered with fly tipped rubble and industrial waste. The ditch runs into the stream described below.

#### Other Rivers & Streams

- 3.3.12 A small stream, which is a tributary of Shepley Dike, runs down the western boundary of the site. It appears to emerge from the ground water around the middle of the site (Ref.10). A River Condition Assessment was undertaken on the watercourse. Five MoRPh modules were recorded along the channel. Details of the results of the survey are presented in Table 2 below.

Table 2 showing the MoRPh5 Survey Details for the Tributary of Shepley Dike		
Survey Criteria	Result	Photographs
Total Length	0.044km	
River Shape	0.87	
Average Width	0.8m	
Braiding Index (A1)	1.000	
Sinuosity Index	1.063	
Anabranching Index	1.000	
Level of Confinement	Unconfined	
Reach Vallet Gradient	0.04852	
Bedrock Reach	No	
Coarsest Bed Material	Gravel-pebble	
Average Bed Material	Silt	
River Type	K - Straight/sinuuous, coarsest SA, average SI	
Condition Score (preliminary)	0.692	
Condition Class (preliminary)	Moderate	
Is river likely overdeep?	Yes	
Final Condition River Assessment	Fairly Poor	

3.3.13 The presence of large swathes of trash and dense, overgrown bramble preventing access to much of the channel directly impacts the natural ecological functioning of the watercourse and constitutes major watercourse encroachment. The riparian zone on both banks is also subject to major encroachment on both sides; the land is intensively grazed on the west bank, and to the east the bank has been littered with rubble and industrial waste along much of the length.

3.3.14 Though from satellite imagery the channel appears to run along the whole western boundary, the southern section is completely dry and is described within the dry ditch section above.

## 3.4 Species

### Badger

- 3.4.1 The desk study returned no records of Badger *Meles meles* within the search area.
- 3.4.2 No evidence of Badger, such as setts, hairs, paw prints or latrines was found on or immediately adjacent to the site. The modified grassland and ruderal / ephemeral habitats offer limited foraging opportunities for Badger.

### Bats

- 3.4.3 The desk study returned 44 total of records of bats across of 7 species including Brown Long-eared Bat *Plecotus auritus* within the search area. The nearest record of roosting bats is an unspecified Common Pipistrelle *Pipistrellus pipistrellus* roost 0.676km to the north-west of the site. The nearest record for any bat was a field record of a Noctule *Nyctalus noctule* 0.076km north of the site.
- 3.4.4 An individual tree with a PRF (at head height) exists within the mixed scrub to the northeast of the site (see Appendix 3, Ref.13). The PRF is shallow and could be fully inspected at the time of survey. No evidence indicating the presence of roosting bats was found. The tree is categorised as a PRF-I.
- 3.4.5 Another tree with multiple PRF's exists to the western border of the site (see Appendix 3, Ref.14). Potential features observed on the tree included flaking bark, a rot hole, a hazard beam on a ground level limb and a transverse snap. The tree is classified as FAR.
- 3.4.6 The ditch / stream is largely under dense vegetation cover and has little value as a linear feature. The site offers limited foraging and commuting opportunities for bats.

### Hedgehog

- 3.4.7 The desk study returned no records of Hedgehog *Erinaceus europaeus* within the search area.
- 3.4.8 No evidence of Hedgehog was found whilst on site. The scrub habitats bounding the site provide suitable foraging and dispersal opportunities for Hedgehog.

### Birds

- 3.4.9 The desk study returned 118 total records of birds across 43 species including BoCC Red species Yellowhammer *Emberiza citronella*, Yellow Wagtail *Motacilla flava* and House Sparrow *Passer domesticus* within the search area.
- 3.4.10 The individual trees and dense scrub on site offer a limited range of nesting opportunities for birds.
- 3.4.11 The grassland on site is very limited and offers little opportunity for ground nesting birds.

### Otter

- 3.4.12 The desk study returned no records of Otter *Lutra lutra* within the search area.
- 3.4.13 No evidence of Otter was recorded on site or immediately adjacent to the site during the surveys. Terrestrial habitats on site are considered largely unsuitable for Otter, with much of the site consisting of bare ground – high levels of disturbance from the adjacent car park are also likely. The small tributary

to Shepley Dike running along the western boundary of the site could be inspected fully and is unlikely to offer more than limited dispersal potential for Otter – the channel is filled with large trash and is very shallow. No significant undercut tree roots or voids within the riverbanks which are suitable for otter couch/holt sites were observed.

#### Water Vole

- 3.4.14 The desk study returned a single historic record of Water Vole *Arvicola amphibius* 0.107km north of the site on Shepley Dike, which does have some habitat connectivity to site via the tributary, though this record is over 10 years old.
- 3.4.15 No evidence of Water Vole was found anywhere on or adjacent to the site during the surveys. The small tributary to Shepley Dike running along the western boundary of the site could be inspected fully and is unlikely to offer more than limited dispersal potential for Water Vole – the channel is filled with large trash and is heavily shaded by vegetation. The water is shallow and much of the riparian zone is dominated by dense bramble, with little to no grassy marginal vegetation and hence offers very little foraging resources for Water Vole.

#### White-clawed Crayfish

- 3.4.16 The desk study returned no records of White-clawed Crayfish *Austropotamobius pallipes* within the search area.
- 3.4.17 No evidence of White-clawed Crayfish was found anywhere on or adjacent to the site during the surveys. The small tributary to Shepley Dike running along the western boundary of the site could be inspected fully and offers some suitable habitat. White-clawed Crayfish are very unlikely to be present and are not considered further within this report.

#### Reptiles

- 3.4.18 The desk study returned two records of Grass Snake *Natrix helvetica* within the search area, though both records are over 10 years old.
- 3.4.19 Most of the habitats on site that will be affected by the development are atypical of those used by reptiles, consisting mostly of recently disturbed bare ground. The site does provide some suitable refuge and shelter habitat for reptiles within the dense scrub and spoil piles. However, foraging opportunities are very limited on site; the structural diversity of both the scrub and grassland is low and the habitat is therefore of limited suitability. Habitat connectivity to other areas of shelter within the broader environment is restricted, and the site is also subject to relatively high levels of noise and disturbance from the adjacent car park. Reptiles are very unlikely to be present and are not considered further within this report.

#### Amphibians

- 3.4.20 The desk study returned 35 total records of birds across 4 species including 12 records of Great Crested Newt *Triturus cristatus* within the search area. Of those Great Crested Newt records, none are

within 1km of the site. There is no suitable breeding habitat for Great Crested Newt within the red line boundary.

- 3.4.21 One pond is present within 250m of the site. The pond is situated 210m east of the site within a timber yard. The pond is separated from the development by considerable urban development, with most of the land consisting of sealed surface hardstanding. Whilst habitats on site, including scrub and spoil piles, would offer some limited commuting and hibernation potential for Great Crested Newt, given the lack of connectivity to suitable breeding habitat, presence is considered unlikely, and this species is not considered further within this report.

#### Invertebrates

- 3.4.22 The desk study returned 14 total records of invertebrates across 5 species including Wall *Lasiommata megera*, White-letter Hairstreak *Satyrrium w-album* and Ghost Moth *Hepialus humuli* within the search area. All of the records are more than 10 years old.
- 3.4.23 Plant species diversity on site is relatively low; much of the site consists of bare ground and the ruderal and grassland habitats are relatively homogenous. The site offers limited opportunities for common and widespread pollinators, and significant impacts to invertebrates are unlikely to be incurred by the development.

## 3.5 Invasive Species

- 3.5.1 The desk study returned 18 total records of invasive plant species across 6 species including Himalayan Balsam *Impatiens glandulifera* and Japanese Knotweed *Fallopia japonica* within the search area.
- 3.5.2 The previous report identified both Himalayan Balsam and Japanese Knotweed on site during the survey. Neither species was identified on site during the survey, and it is understood that an eradication programme has been underway on site on Japanese Knotweed for the last two years.
- 3.5.3 No other invasive species were identified during the survey.

## 3.6 Biodiversity Net Gain

- 3.6.1 The baseline habitat values, as detailed within the statutory metric, are summarised in Table 3.

Area Habitats			
Baseline Habitat Type	Area (ha)	Condition	Habitat Unit Score
Bare Ground	0.131	Poor	0.26
Ruderal Ephemeral	0.018	Good	0.11

Tall Forbs	0.091	Poor	0.18
Bramble Scrub	0.044	N/A	0.18
Mixed Scrub	0.023	Poor	0.09
Modified Grassland	0.123	Poor	0.25
Vacant or Derelict Land	0.028	Poor	0.06
Individual Trees (small)	0.0814	Moderate	0.65
Individual Trees (medium)	0.0977	Good	1.17
<b>Total</b>	<b>0.46</b> (Excluding Individual Trees)		<b>2.95</b>
<b>Hedgerow Habitats</b>			
<b>Baseline Habitat Type</b>	<b>Length (km)</b>	<b>Condition</b>	<b>Hedgerow Units</b>
Non-native & Ornamental Hedgerow	0.026	Poor	0.03
<b>Total</b>	<b>0.026</b>		<b>0.03</b>
<b>Watercourse Habitats</b>			
<b>Baseline Habitat Type</b>	<b>Length (km)</b>	<b>Condition</b>	<b>Watercourse Units</b>
Other Rivers & Streams	0.044	Fairly Poor	0.16
Ditches	0.029	Poor	0.09
<b>Total</b>	<b>0.073</b>		<b>0.25</b>

3.6.2 The strategic significance of the site was assessed with reference to the adopted Kirklees Local Plan and the emerging West Yorkshire Local Nature Recovery Strategy (LNRS), which is currently in draft form. As the draft Local Habitat Map within the latter does not yet confirm any Areas of Particular Importance for Biodiversity (APIB) or Areas That Could Become Important (ACB) for this location, and the former does not highlight any of the area habitats are being under consideration, all area habitats have been assigned the strategic significance category 'Area/Compensation not in local strategy/no local strategy' within the Statutory Biodiversity Metric<sup>8</sup>.

<sup>8</sup> RHE.3840 Statutory BNG Metric for Brook House Lane, Shelley 2026

## 4. Assessment

### 4.1 Development Context

4.1.1 The following assessment assumes that the development follows plans outlined in Appendix 4.

### 4.2 Impacts on Designated Sites

4.2.1 No impacts to statutory designated sites are anticipated given the distances involved and the lack of impact pathways.

### 4.3 Impacts on Habitats

4.3.1 None of the habitats on site are of principal importance. Habitats to be lost as a result of the development are common and widespread, and their loss will be suitably mitigated for through the biodiversity impact assessment process.

### 4.4 Biodiversity Net Gain

4.4.1 The baseline habitat value within the redline development is 2.95 area units, 0.03 linear units and 0.25 watercourse units. The development will incur the loss of a number of habitats on site, and has a unit deficit of 3.24 habitat units, which would need to be achieved in order to meet 10% net gain

### 4.5 Impacts on Species

#### Badger

4.5.1 Impacts to Badgers are considered very unlikely, however, there is a remote risk of harm to Badgers should they access the construction site.

#### Bats

4.5.2 In the absence of mitigation, works to trees with bat roosting potential may result in the harm or disturbance of roosting bats and a reduction in the local roosting resource.

4.5.3 A small loss of potential foraging and commuting habitat may be incurred by the development.

#### Hedgehog

4.5.4 In the absence of mitigation, the construction site could cause harm to Hedgehog should they enter the construction site.

#### Birds

4.5.5 In the absence of mitigation, the clearance of scrub and individual trees could result in impacts to nesting birds.



#### Otter & Water Vole

- 4.5.6 Habitat suitability on site is very low for both species, and no records of either species occurred within the last 10 years. Considering the 5m buffer from the bank top implemented as part of the development, and the fact that both Otter and Water Vole are likely to be absent from the site, neither species is likely to be affected directly by the development. Whilst very remote, in the absence of mitigation disturbance during construction and operation phases (lighting and human presence) could impact Otter & Water Vole, hence precautionary mitigation is proposed (below).

## 4.6 Invasive Species

#### Plants

- 4.6.1 Whilst no evidence of invasive presence was found during the survey, should the current eradication programme not fully remove all invasive species, there is a risk that such species could be present during the construction phase. In this absence of mitigation, this could lead to the spread of invasive species.
- 4.6.2 It is not an offence to have Himalayan Balsam and Japanese Knotweed on your land, but it is an offence to allow the species to spread into neighbouring areas or to grow in the wild. Therefore, it will be necessary to ensure appropriate measures are in place to prevent development activities from causing further spread of the species to new areas.



## 5. Recommendations

### 5.1 Further Surveys

#### Bats

- 5.1.1 Should trees with roosting potential be removed as part of the development, further surveys are required in order to establish the presence or absence of roosting bats. The tree with multiple PRF's, as identified above, should be subject to an Aerial Roost Assessment.
- 5.1.2 If the tree with a single PRF-I should be removed as part of the development, the tree should be subject to a pre-commencement check.

### 5.2 Mitigation and Enhancement Measures

- 5.2.1 Protection of ecological features (habitats and species) during the construction phase will be described in a Construction Environmental Management Plan (CEMP). Measures to protect, maintain and enhance ecological features during the operational phase of development will be described in a Habitat Management and Monitoring Plan (HMMP). Management Plans will contain Operational Aims and Objectives, Rationale for management, Prescriptions and schedules detailing the timing and responsibility for delivering the prescriptions. It is anticipated that the CEMP and HMMP will be provided as a planning condition in advance of the commencement of the proposed development.

#### Biodiversity Net Gain

- 5.2.2 Recommendations in order to maximise biodiversity net gain include:
- Retention, to the fullest extent possible, of individual trees on site.
  - The removal of watercourse encroachment incurred by large trash and overgrown vegetation existing within the stream.
  - Implementation of a buffer zone between property ownership and the existing watercourses, in order to minimise the riparian encroachment.
  - Removal of all invasive species from the site, in order to benefit the condition of any retained / proposed habitats.
  - Enhancement of linear features (hedgerows) to the southern border of the site.
  - Creation of a range of habitats on site to maintain the variety of species catered for by the current habitat mix, which should look to include scrub, grassland and individual tree planting within areas of public open space.
- 5.2.3 If the application of the Mitigation Hierarchy demonstrates that on-site delivery is not feasible or is insufficient to achieve 10% net gain and comply with the BNG requirements, it will be necessary to

seek mitigation or compensation for any shortfall in units, either by management of land owned by the applicant or the purchase of biodiversity units from a third party.

#### Bats

- 5.2.4 A sensitive lighting scheme should be implemented as a condition to planning, to prevent light spill from the new properties affecting surrounding foraging habitat.
- 5.2.5 The new dwellings present an opportunity to incorporate bat boxes either integrated into the build or fastened on externally, in order to improve roosting and foraging provisions for local populations.
- 5.2.6 Further mitigation for impacts to bats should be informed by the results of any further surveys, should they be required.

#### Badger & Hedgehog

- 5.2.7 Reasonable Avoidance Measures (RAMs) will be implemented during the construction phase of the development, to ensure that Badger, Hedgehog and any other mammals are not trapped or harmed during the construction work. These will include elements such as ensuring excavations are covered if left overnight and larger excavations, if left overnight or for longer periods, should be ramped to enable animals to escape.

#### Nesting Birds

- 5.2.8 Impacts on nesting birds should be avoided by carrying out site clearance and similar operations outside of the bird breeding season (March- August inclusive). Construction activities that might directly impact upon breeding birds should hence be limited to the September-February period. If vegetation has to be cleared during the bird breeding season checks immediately before clearance by a suitably qualified ecologist will be required. If nesting activity is detected work in that area will need to stop until the nesting attempt is complete.
- 5.2.9 If the presence of an active nest is subsequently confirmed, the ecologist would advise on appropriate mitigation measures. These may include the establishment of a protective buffer zone around the nest, the extent of which will depend on the sensitivity of the species concerned, the cover surrounding the nest and the nature of the proposed works.

#### Otter and Water Vole

- 5.2.10 Whilst the above species are considered likely to be absent, it is recommended as a precaution that the appropriate good practice guidelines (CIRIA, 2001) are followed to ensure sediment transfer and pollution spills do not occur. Additionally, a lighting strategy should be adopted which minimises light trespass into the adjacent river habitats both in construction and operation. The 5m buffer between hard development and the stream discussed at design stage should be implemented into finalised plans.

### Invasive Species

- 5.2.11 The eradication schedule for the invasive species present on site should continue until complete prior to the commencement of work. If work is to begin prior to suitable completion, measures to prevent the spread of invasive species during the construction phase should be detailed within the CEMP.

### Enhancement Opportunities

- 5.2.12 Bird and bat boxes should be integrated into the new dwellings or onto retained trees, in order to improve nesting and roosting provisions for local populations. The numbers and locations of both should be informed by a suitably qualified ecologist. The number and type of bat box installed should be informed by any further surveys on existing trees, should they need to take place.
- 5.2.13 Any fences erected between dwellings should contain hedgehog holes to continue to facilitate the movement of small mammals throughout the site. The number and location of hedgehog holes in fencing should be specified by a suitably qualified ecologist once plans have been finalised
- 5.2.14 Planting of native grassland, trees and shrubs to be included within the proposal plans should be of local provenance. These should look to include berry, pollen and nectar producing species.



# Appendix 1: Planning Policy & Legislation

## National Policy

The National Planning Policy Framework (NPPF 2025) describes the Government's planning policy for England and how it should be applied. Within this framework, the requirements in relation to biodiversity are included within several policies. The two most relevant to individual planning decisions are Paragraphs 187, 192 and 193, shown below:

- 187. 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 and incorporating features which support priority or threatened species such as swifts, bats and hedgehogs;
  - 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.
- 192. To protect and enhance biodiversity and geodiversity, plans should:
  - 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.
- 193. 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 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.

### Legislation

The Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000) includes the notification and confirmation of Sites of Special Scientific Interest (SSSIs). SSSIs can be notified for their floral, faunal, geological, or physiographical features. Protection against damaging operations and management of SSSIs is also included within the Act. Impact Risk Zones (IRZs) are zones around an SSSI account for the particular sensitivities of the features for which it is notified and identify development proposal which could have adverse impacts.

The Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000) protects native animals, plants and habitats. Under the Act it is an offence to intentionally kill, injure or take any wild animal listed on Schedule 5 and it is an offence to interfere with places used for shelter or protection, or intentionally disturb animals occupying such places. The Act prohibits picking, uprooting or destroy any wild plant (or any attached seed or spore) listed in Schedule 8.

European Protected Species (EPS) such as bats, Hazel Dormouse, Otter, Natterjack Toad, Smooth Snake, Sand Lizard and Great Crested Newt are protected by the Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000) and the Conservation of Habitats and Species Regulations 2017. The Acts make it an offence to:



- a) Deliberately capture, injure or kill an EPS;
- b) Deliberately impair an EPS's ability to survive, breed, reproduce, rear or nurture young; to hibernate or migrate; or significantly affect the local distribution or abundance of the EPS.
- c) Possess or control live or dead EPS or any part of, or anything derived from a EPS;
- d) Damage or destroy a breeding site or resting place of an EPS;
- e) Intentionally or recklessly obstruct access to any place that is used for shelter or protection by an EPS;
- f) Intentionally or recklessly disturb a structure or place that it uses for shelter or protection that is occupied by an EPS.

All common herptiles are protected under the Wildlife and Countryside Act 1981 (as amended by the CRoW Act 2000). Grass Snake, Slow Worm, Common Lizard, Adder are protected against intentional killing or injury. Common Frog, Common Toad, Smooth Newt and Palmate Newt is protected against sale. In addition, all British reptiles, Common toad and Great Crested Newt are listed as Species of Principal Importance.

All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended). It is an offence to intentionally kill, injure or take any wild bird or take, damage, or destroy its nest whilst in use or being built, or take or destroy its eggs. It is an offence to intentionally or recklessly disturb a species listed on Schedule 1 of the Act while they are nest building or at or near a nest with eggs or young, or to disturb the dependent young.

The Protection of Badgers Act 1992 makes it an offence to wilfully, or to attempt to kill, injure, take, possess or cruelly ill-treat a Badger, or intentionally or recklessly interfere with a sett. Interference of a sett includes disturbing Badgers during occupation of a sett, or damaging or destroying a sett, or obstructing access to the sett.

Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places a duty on every public authority to have regard to conserving biodiversity. Section 41 of the same Act requires the Secretary of State to publish a list of the living organisms and types of habitats that are of 'Principal Importance' for the purpose of conserving biodiversity. The Secretary of State must take steps, as appear reasonably practicable, to further the conservation of those living organisms and habitats in any list published under this section. The list of species and habitats of principal importance currently includes 943 species and 56 habitats. These are the species and habitats found in England which are regarded as conservation priorities under the UK Post-2010 Biodiversity Framework

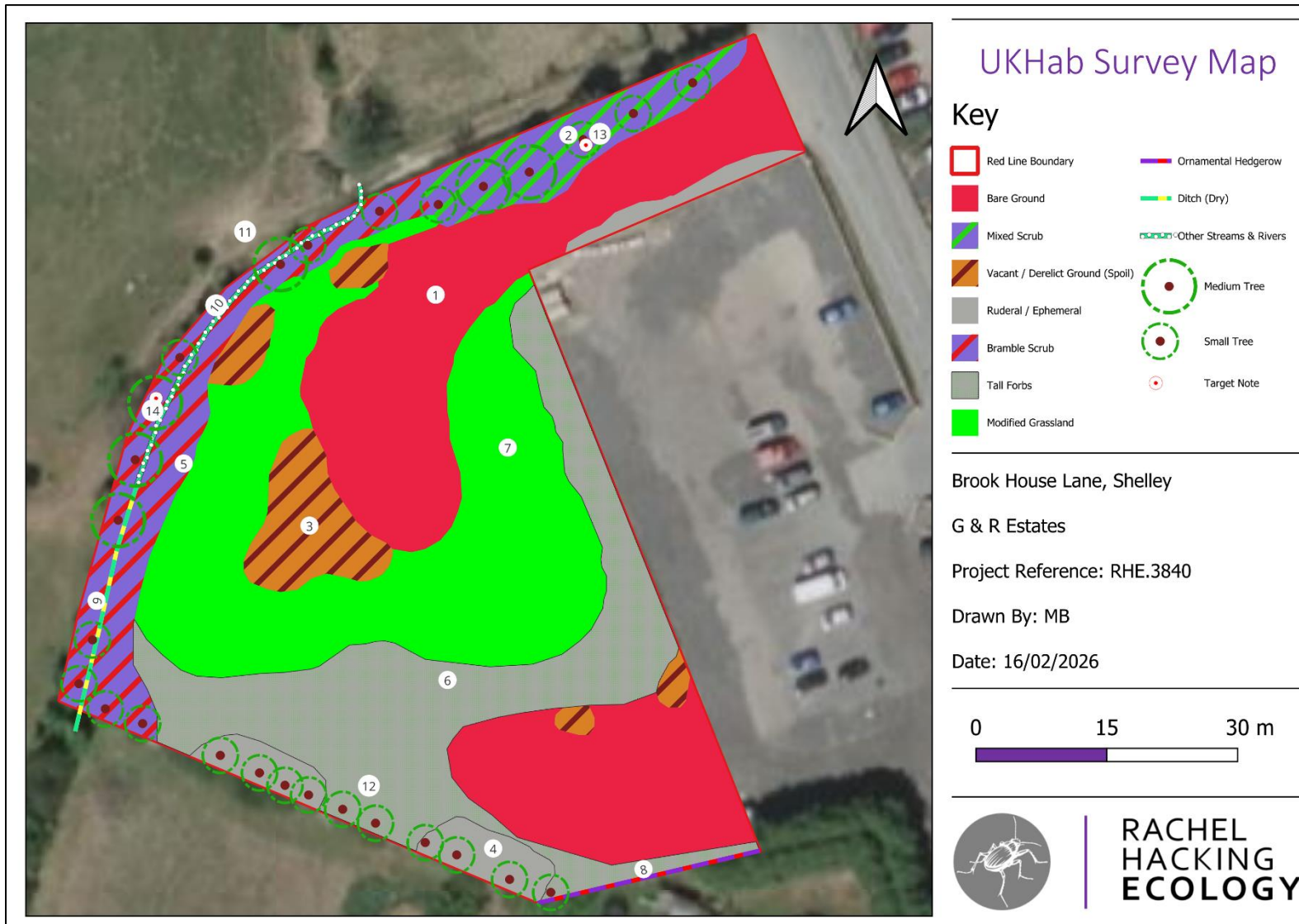
The Hedgerows Regulations 1997 protect 'important' hedgerows from destruction or damage. A hedgerow is 'important' if it (a) has existed for 30 years or more; and (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations. Under the Regulations, it is against the law to remove or destroy 'important' hedgerows unless permitted by the local planning authority.

The Environment Act 2021 makes it mandatory for housing and development, subject to some narrow exemptions, to achieve at least a 10% net gain in value for biodiversity – a requirement that habitats for wildlife must be left in a measurably better state than before the development. Developers must submit a 'biodiversity gain plan' alongside usual planning application documents. The local authority must assess whether the 10% net gain requirement is met in order to approve the biodiversity gain plan.




The Environment Act 2021 strengthens the duty on public authorities (NERC Act, 2006) to have regard to the conservation of biodiversity.




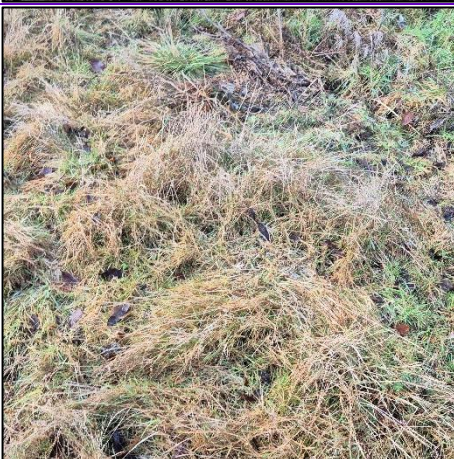
The Environment Act 2021 amends the Wildlife and Countryside Act 1981 to introduce an additional purpose for granting a protected species licence in relation to development, 'for reasons of overriding public interest', and two additional tests for the granting of such licences: that there is 'no other satisfactory solution' and that granting the licence is 'not detrimental to the survival of any the population of the species concerned'. These changes will reduce the scope for unlicensed activities to provide clear safeguards before licences can be granted, providing legal certainty and clarity to developers about their environmental obligations.



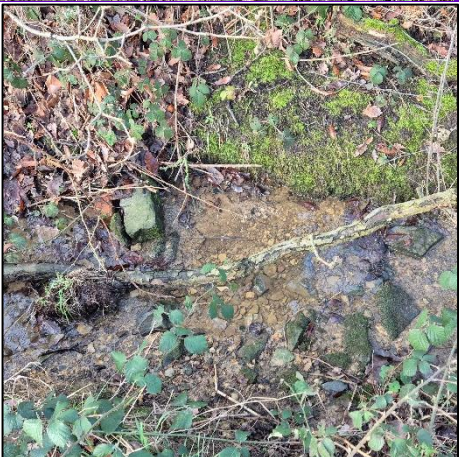
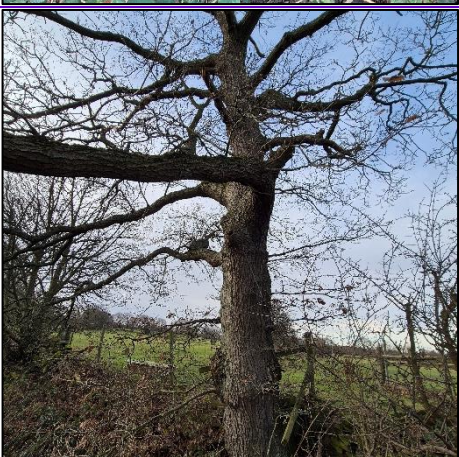
# Appendix 2: UK Habitat Map


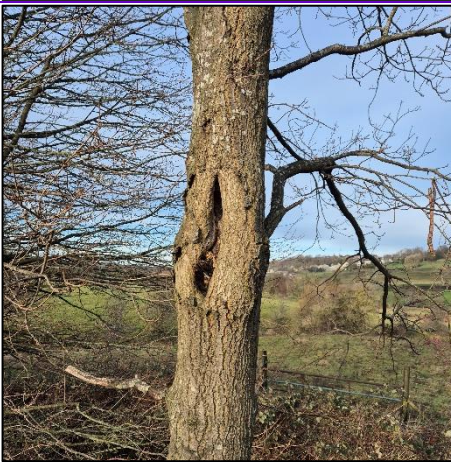



## Appendix 3: Photographs & Target Notes

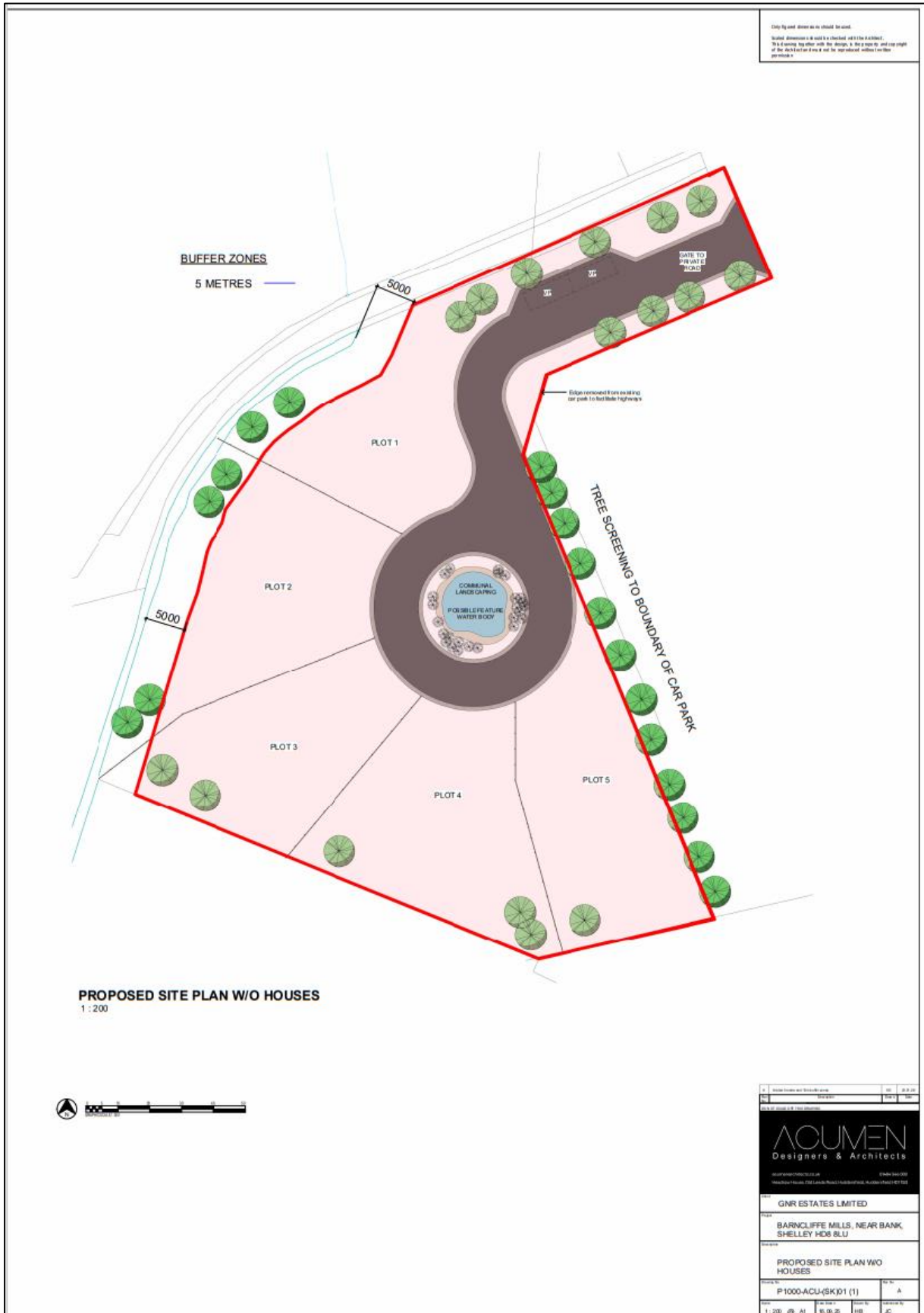
Reference No.	Habitat	Photograph
1	Bare Ground	 A photograph showing a patch of bare ground with sparse green moss. In the background, there is a wooden fence and several large concrete pipes lying on the ground.
2	Mixed Scrub	 A photograph of dense, bare scrub vegetation, likely in winter or early spring, with many thin, leafless branches.
3	Vacant / Derelict Ground (Spoil)	 A photograph of a large pile of reddish-brown bricks, likely representing derelict ground or spoil.

4	Ruderal / Ephemeral	
5	Bramble Scrub	
6	Tall Forbs	
7	Modified Grassland	

8	Ornamental Hedgerow	 A photograph showing a dense hedgerow with several tall, thin, vertical stems, likely hawthorn, and a large evergreen tree in the background.
9	Dry Ditch	 A photograph of a dry ditch or stream bed, showing a mix of bare branches, fallen leaves, and some green moss or algae on the ground.
10	Other Rivers and Streams	 A close-up photograph of a stream bed, showing a mix of bare branches, fallen leaves, and some green moss or algae on the ground.
11	Medium Tree	 A photograph of a large, mature tree with a thick trunk and bare branches, standing in a field.

12	Small Tree	
13	Target Note (PRF-I Tree)	
14	Target Note (Multiple PRF Tree)	

# Appendix 4: Initial Proposal Plans



## Appendix 5: Desk Study Data

The report includes a summary of the species records that were made available. Should you wish to see further details please submit a written request to Rachel Hacking Ecology. We will contact the client to ask permission to share the data.

