

Land off Herschel Avenue, Burnley
Ecological Appraisal
2024



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Client Campbell Driver Partnership
Project Title Land off Herschel Avenue, Burnley
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Executive Summary

Development Details

The client is proposing residential development of the site, 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 interest. Recommendations are provided so that the development is compliant with biodiversity policy and legislation.

Ecological Interest

The site has a low level of ecological interest. The scattered trees and broadleaved woodland habitats offer moderate levels of ecological value.

The site provides nesting habitat for birds and foraging and commuting habitat for bats.

Outcomes

Further bat survey work is required on the building and derelict outbuildings to establish the status of roosting bats.

Mitigation measures will include protection of retained trees and woodland during construction. Standard measures to avoid risks to nesting birds will be included in a Construction Environment Management Plan (CEMP).

Vegetation clearance is to be undertaken outside the bird nesting season (March –August).

Enhancement opportunities have been identified.

1. Introduction

1.1 Project Brief

- 1.1.1 Rachel Hacking Ecology Limited was commissioned in 2024 by Campbell Driver Associates to carry out an Ecological Appraisal on site (O.S. grid reference: SD 82376 33722 —see Figure 1).



Figure 1. Map showing the location of the site courtesy of Google Maps

- 1.1.2 The proposed development site consists of a detached dwelling, and three derelict outbuildings set in areas of ruderal and scrub habitat. The site is bordered by broadleaved woodland to the north and residential development to the east, south and west.

Description of Development

- 1.1.3 The site will be the subject of a planning application for a residential development.

1.2 Scope of Work

- 1.2.1 The Client commissioned Rachel Hacking Ecology to carry out the following works:
- Desk-based study to identify any designated sites within 2km.
 - Record the extent, type, and condition of habitats within and next to the site.

Search for signs of protected species and assess the potential of habitats and features to support protected and notable species.

1.3 Site Visit Information

Surveyor Details

- 1.3.1 Ben Crossthwaite (Senior Ecologist) conducted the site surveys on the 23rd February 2024. Ben has over eight years of experience in habitat and protected species surveys and holds a Natural England Level 2 Class Survey Licence for bats (Licence Ref: 2020-48541-CLS-CLS).

Weather

- 1.3.2 The weather at the time of the survey was overcast, dry and cool.



2. Methods

2.1 Desk Study

- 2.1.1 The Magic (Multi-Agency Geographical Information for the Countryside) was interrogated for the presence of Statutory Designated Sites (and European Protected Species licences) within 2km of the site.
- 2.1.2 The Impact Risk Zones for any SSSI within 2km of the site was checked to determine whether the Local Planning Authority will need to consult with Natural England.

2.2 Field Survey

Extended Phase 1 Habitat Survey

- 2.2.1 In accordance with JNCC guidelines¹ the site was walked over and the habitats and features of ecological interest were mapped and described. 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 guidelines². Field signs of protected, notable, and invasive non-native species, if encountered, were mapped, and described.

Bats

- 2.2.3 The exterior of the site was surveyed from the ground using binoculars and a high-powered torch. Features offering potential access to roosting bats were recorded. Such features may include suitable gaps in roof coverings, gaps behind external cladding/facia and gaps in masonry.
- 2.2.4 Evidence indicating the presence of roosting bats was also searched for. This may include bat droppings on walls, windows or on the ground below roost entrances or staining from fur oil around roost entry points.
- 2.2.5 The interior of the site, including the roof void, was surveyed to identify any evidence indicating use by roosting bats. Such evidence may include bat droppings, feeding remains, urine splashes, live or dead bats and staining from fur oil on timbers.

¹ JNCC (2010). *Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit*. Joint Nature Conservation Committee, Peterborough

² CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal*. Chartered Institute of Ecology and Environmental Management, Winchester.

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

2.3 Mitigation Hierarchy

- 2.3.1 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.

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 Table 1 describes the survey limitations and how these were mitigated.

Constraints	Mitigated Response
Suboptimal time of year for botanical surveys	Habitats present onsite are ubiquitous
No internal access of the dwelling on site	Bat activity surveys are required as a sound characterisation of the building with regards to bat roost suitability could not be undertaken.

3.2 Designated Sites

3.2.1 The desk study provided information on the designated sites listed below in Table 2

Name	Status	Location/distance	Interest
Hagg Wood	Biological Heritage Site (BHS)	1km north	
Crow Wood House Farm	BHS	1.1km north-east	
Lowerhouse Lodges	Local Nature Reserve (LNR)	1.8km south-west	Swamp and marsh vegetation, riverside habitats, plantations, wet willow woodland, scrub, tall herb, grassland areas and a hay meadow.

- 3.2.2 The desk study identified that the site was located within the Impact Risk Zone of the South Pennine Moors Sites of Special Scientific Interest (SSSI). The proposed development will not require the Local Planning Authority to consult with Natural England.
- 3.2.3 A Public Right of Way (PRoW) is located on site, continuing further eastwards.

3.3 Habitats

- 3.3.1 Target Notes and photographs are contained in Appendix 2 and the habitats survey plan is contained in Appendix 3. A botanical species list is provided in Appendix 4.

Building

- 3.3.2 A detached building and three derelict outbuildings are located on site. These are described in further detail in Table 3 below.

Bare Ground

- 3.3.3 Areas of hardstanding on site include the paved access driveway, access track, parking and patio areas.

Broadleaved Woodland

A small area of broadleaved woodland is located in the eastern part of the site, and is part of a wider woodland. The woodland lacks a diverse structure with the trees all of a similar age. The woodland lacks a shrub layer and the field layer is dominated by ruderal species. No glades or other open areas are present.

Continuous Scrub

- 3.3.4 Continuous scrub lines part of the northern section of driveway and another area, located in the far eastern part of the site, amongst the tall, ruderal herb. Some of this area comprises an unmanaged shrub bed.

Tall Ruderal Herb

- 3.3.5 Tall, ruderal herb lines much of the access track. More substantial areas surround the buildings on site, establishing on areas of bare ground, reflecting the lack of management in this area.

Scattered Scrub

- 3.3.6 Scattered scrub is located across the site, within the areas of tall, ruderal herb. This is particularly prominent around the buildings on site, specifically within the derelict outbuildings.

Scattered Tree

- 3.3.7 Scattered trees are located along the driveway, within the areas of continuous scrub and within the areas of ruderal herb in the eastern part of the site. The trees are largely juvenile and self-seeded.

3.4 Species

Great Crested Newt

- 3.4.1 No ponds exist on site. A review of maps and aerial images shows that no ponds are located within 250 metres of the site boundary. Though the woodland, scrub and ruderal habitats provide suitable terrestrial habitat for Great Crested Newt *Triturus cristatus* and other amphibious species, the site is isolated from any potential breeding habitat in the wider landscape. Great Crested Newt is not considered further in this report.

Birds







- 3.4.2 No evidence of nesting birds was found during the site survey. The woodland, trees and buildings on site offers suitable nesting and foraging habitat for a range of bird species.

Bats

- 3.4.3 The building are described in detail in Table 3.

Table 3 Building Details

Building Reference	Description	Photographs	Bat Roost Potential
Dwelling	<p>A stone-built dwelling with pitched and hipped roofs. Masonry in a mixed condition with cracks, missing sections of mortar and damaged sections present. Many of the roof edges have relatively large gaps offering potential entry points. Many of the stone roof flags are damaged and 'lifted', providing both potential entry points and roost habitat for bats. The chimney stacks are in poor condition, with cracks and missing sections of mortar present. The timber window and door frames are sealed to the surrounding masonry. No internal access was possible at the time of the survey.</p>		High

				
<p>Derelict Buildings</p>	<p>The three derelict buildings on site were not fully assessed due to health and safety concerns. Sections of the roofs were unsafe and 'internal' access was not possible. The walls are constructed from stone and brick. Gaps and cracks are located across many of the standing walls. It is considered the potential roosting features across the derelict buildings do not provide suitable habitat, conditions and cover for a maternity roost. However, they do provide potential features for single bats.</p>			<p>Low</p>
				





- 3.4.4 The trees on site were assessed from the ground for Potential Bat Roost Features. One tree was found to support such features (TN1). However, on closer inspection, this was found to be shallow, with no onward cavities and another offered no access or cover, and both features deemed to offer negligible bat roost suitability.

Badger

- 3.4.5 No evidence of Badger *Meles meles* was recorded during the site survey. The site provides potential foraging habitat within the ruderal herb and woodland. Badger is not considered further in this report.

3.5 Invasive Species

- 3.5.1 No invasive, non-native species were recorded on site.



4. Assessment

4.1 Development Context

4.1.1 The following assessment assumes that all the habitats on site are to be lost to the development.

4.2 Impacts on Designated Sites

4.2.1 No impacts to any statutory or non-statutory designated sites are anticipated due to the absence of impact pathways.

4.3 Impacts on Habitats

4.3.1 The proposals will result in the loss of bare ground, continuous and scattered scrub, tall ruderal herb and individual trees. These habitats are common and widespread, and the impact is significant at the site level only.

4.3.2 The area of broadleaved woodland on site, though not categorised as Priority Habitat, and is not indicative of Priority Habitat, is a habitat of moderate ecological value and forms part of a wider area of woodland. However, due to the species composition and existing structure of the woodland, this loss of this habitat is significant at site level only.

4.3.3 In the absence of mitigation, retained trees (were possible) and neighbouring woodland could be damaged through soil compaction leading to root damage.

4.4 Impacts on Species

Bats

4.4.1 Further survey work is required on the building and derelict outbuildings on site. If an active bat roost is found to be present, site mitigation will be required, and a European Protected Species licence will be sought to destroy the roost legally.

4.4.2 None of the trees on site were found to support Potential Bat Roost Features. No further assessments are required at this time.

4.4.3 The onsite and neighbouring woodland on site is likely to provide foraging and commuting habitat for bats. This habitat could be affected by the site proposals through artificial lighting.

Birds

- 4.4.4 The removal of woodland, trees or scrub and demolition of the buildings could impact nesting birds, should these be present.



5. Recommendations

5.1 Further Surveys

Bats

- 5.1.1 Further detailed surveys are required in order to determine the status of roosting bats at the site and inform mitigation requirements.
- 5.1.2 A minimum of two dusk emergence surveys of the building on site and one dusk emergence survey on each of the derelict outbuildings should be undertaken under suitable conditions between May and August.

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). Mitigation measures to protect, maintain and enhance ecological features during the operational phase of development will be described in a Biodiversity Management Plan (BMP). 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 BMP will be provided as a planning condition in advance of the commencement of the proposed development.

Habitats

- 5.2.2 Retained trees and neighbouring broadleaved woodland will be protected during construction in accordance with a Tree Protection Plan.
- 5.2.3 The neighbouring woodland should be protected as a wildlife corridor 'dark zone' through a Sensitive Lighting Scheme.

Birds

- 5.2.4 Impacts on nesting birds should be avoided by carrying out site clearance/demolition and similar operations outside of the bird breeding season (March - August). If vegetation has to be cleared and the buildings have to be demolished during the bird breeding season, checks immediately before clearance/demolition by a suitably qualified ecologist will be required. If nesting activity is detected work in that area will need to stop until the ecologist considers that nesting activity is finished.
- 5.2.5 Nest boxes could be installed on suitable retained trees and newly constructed buildings to enhance nesting opportunities for birds of conservation concern such as Starling *Sturnus vulgaris* and House Sparrow *Passer Domesticus*.

Bats

- 5.2.6 Bat boxes could be installed on suitable retained trees to enhance roosting opportunities.



Appendix 1: Planning Policy & Legislation

National Policy

The National Planning Policy Framework (NPPF 2023) 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 180 and 186, shown below:

180. 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.

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

The Environment Bill 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.

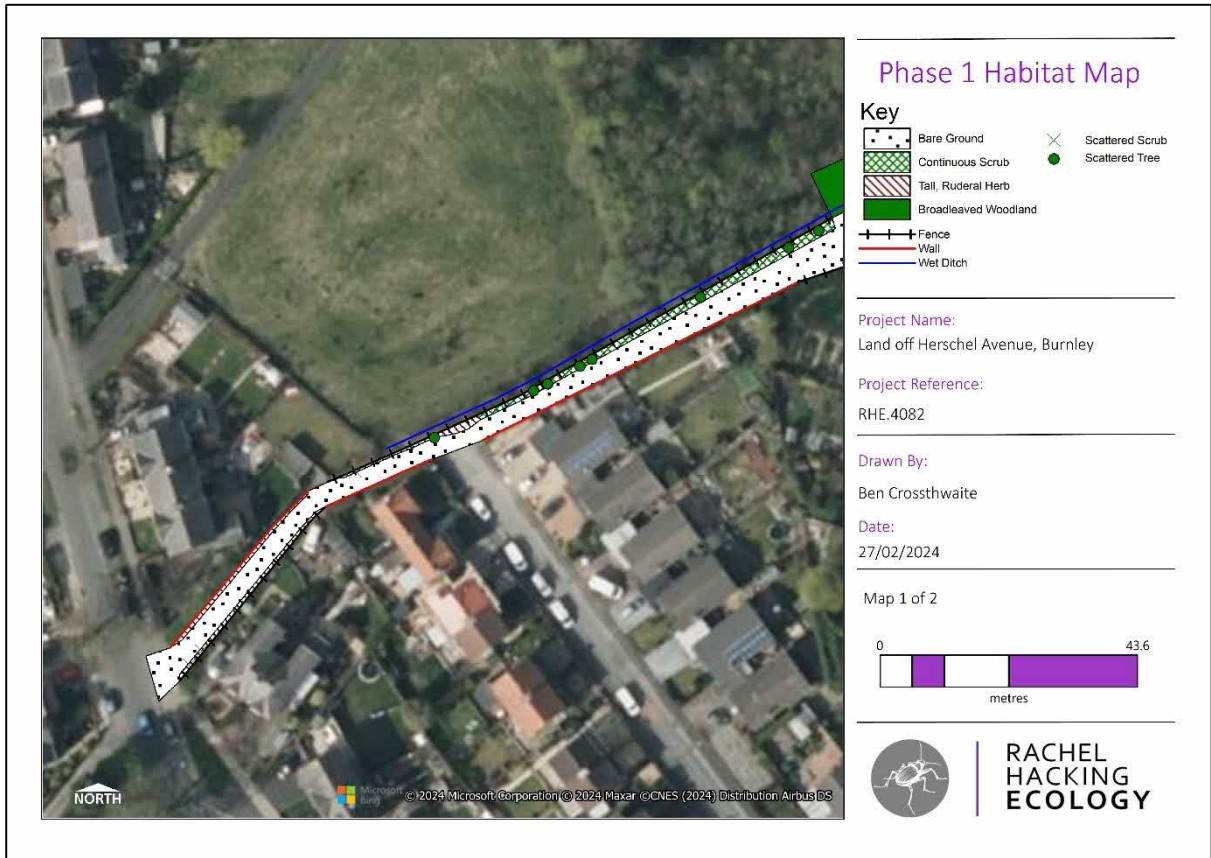


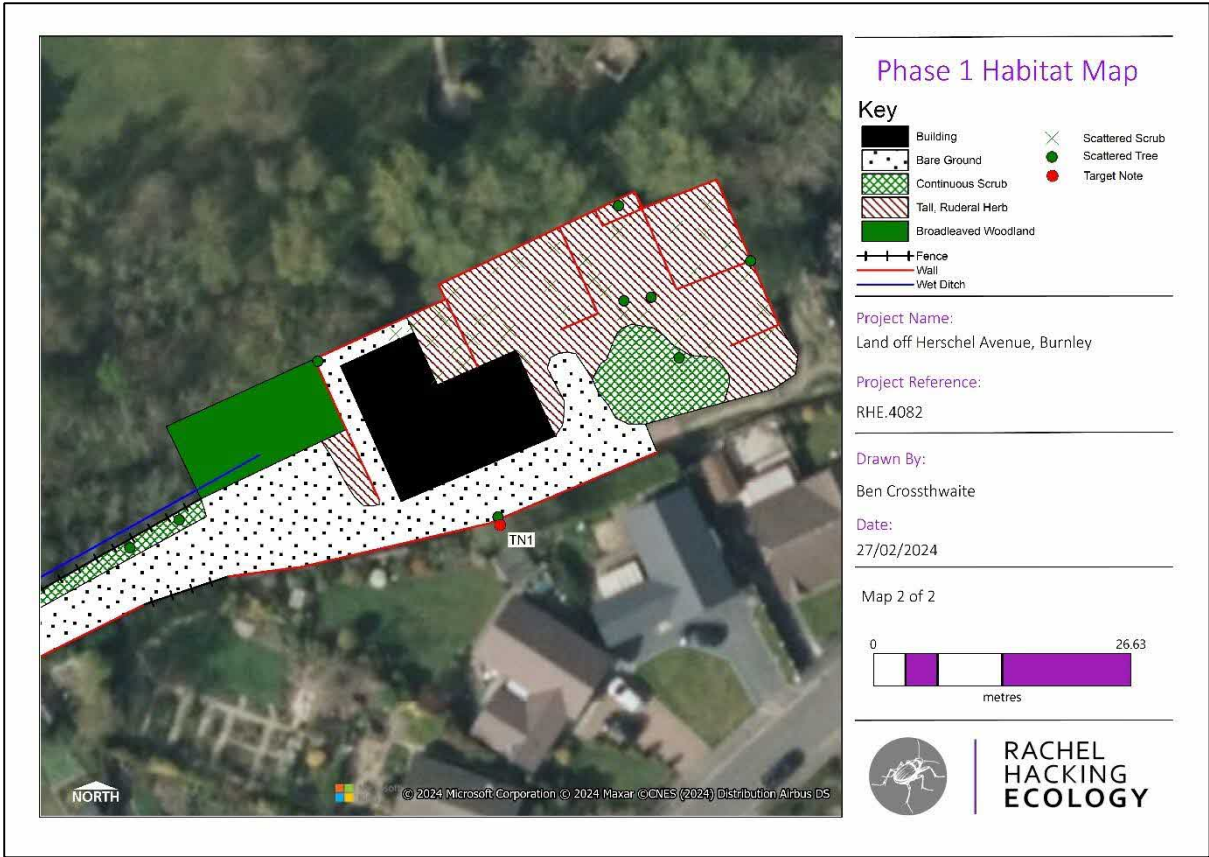
Appendix 2 Target Notes

Table 2. Target Notes		
Reference No.	Habitat/Feature/Species	Photograph
	Bare Ground	
	Broadleaved Woodland	
	Continuous Scrub	
	Tall, Ruderal Herb	

	<p>Scattered Tree</p>	
<p>IN1</p>	<p>Tree with PRF that was assessed further and deemed to provide no suitable features</p>	

Appendix 3: Habitat Plan





Appendix 4: Species Lists

Common Name	Latin Name
Scattered Trees	
Silver Birch	<i>Betula pendula</i>
Ash	<i>Fraxinus excelsior</i>
Hawthorn	<i>Crataegus monogyna</i>
Hazel	<i>Corylus avellana</i>
Cypress species	<i>Chamaecyparis/Cupressocyparis</i> sp.
Continuous Scrub	
Hawthorn	<i>Crataegus monogyna</i>
Elder	<i>Sambucus nigra</i>
Ivy	<i>Hedera helix</i>
Bramble	<i>Rubus fruticosus</i> agg.
Butterfly Bush	<i>Buddleja davidii</i>
Atlantic Ivy	<i>Hedera helix</i> spp. <i>hibernica</i>
Hazel	<i>Corylus avellana</i>
Blackthorn	<i>Prunus spinosa</i>
Hedge Bindweed	<i>Calystegia sepium</i>
Tall, Ruderal Herb	
Dandelion	<i>Taraxacum officinale</i> agg.
Ivy	<i>Hedera helix</i>
Bramble	<i>Rubus fruticosus</i> agg.
Common Nettle	<i>Urtica dioica</i>
Lesser Celandine	<i>Ficaria verna</i>
Raspberry	<i>Rubus idaeus</i>
Cleavers	<i>Galium aparine</i>
Herb-Robert	<i>Geranium robertianum</i>
Yorkshire Fog	<i>Holcus lanatus</i>
Common Bent	<i>Agrostis capillaris</i>
Pendulous Sedge	<i>Carex pendula</i>
Luisan	<i>Hypericum androsaemum</i>
Broadleaved Woodland	
Hazel	<i>Corylus avellana</i>
Elder	<i>Sambucus nigra</i>
Ash	<i>Fraxinus excelsior</i>
Bramble	<i>Rubus fruticosus</i> agg.
Alder	<i>Alnus glutinosa</i>
Common Nettle	<i>Urtica dioica</i>
Ivy	<i>Hedera helix</i>
Goat Willow	<i>Salix caprea</i>
Scattered Scrub	

Butterfly Bush	<i>Buddleja davidii</i>
Wild Cherry	<i>Prunus avium</i>
Elder	<i>Sambucus nigra</i>

