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Preliminary Ecological Appraisal

January 2025

Project Reference: PR-0248-24

The Rose and Crown Public House
Cop Hill Side
Slaithwaite
Huddersfield
HD7 5XA

National Grid Reference: SE06001386

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Executive Summary

As part of a proposed planning application with Kirklees Council concerning the Rose and Crown in Slaithwaite, Tyrer Ecological Consultants carried out a Preliminary Ecological Appraisal (PEA) in July 2024.

The survey was commissioned by Holme Planning Partnership; the scope of proposals is understood to involve the redevelopment of the existing building and extension within the hardstanding area for residential purposes.

Extensive findings, conclusions and recommendations are presented throughout the report; however, the reader should be aware of the following further surveys and key recommendations.

Key recommendations:

Biodiversity Net Gain

Based on the information gathered during the diurnal assessment and provided to the author, The Rose and Crown Public House is likely **exempt** from the Biodiversity Gain Planning Condition; the site meets the de minimis exemption, as the development does not impact on any priority habitats; less than 25 m^2 of onsite habitats with a biodiversity value greater than zero will be affected. It is understood that the proposals will be contained within the current areas of hardstanding.

The site is host to the following biodiversity value:

- *Habitat:* ***1.54***
- *Hedgerow:* ***0.22***
- *Watercourse:* ***0.00***

Invasive Non-Native Species

Two INNS, listed under either Schedule 2 (Part II) of the Invasive Alien Species (Enforcement and Permitting) Order (IASO) 2019 or Schedule 9 of the WCA (1981), were incidentally observed within the site during the survey, Himalayan balsam and wall cotoneaster in various areas and in dense abundances.

To prevent further spread of these species from within the site, it is recommended that they are eradicated from the site prior to development. A Method Statement should be collated by a suitably qualified ecologist or invasive species specialist outlining how these species will be removed pre-works, including details regarding site biosecurity protocols.

Bats

Based upon the findings of the DBW and associated GLTA, covered through sections 5.0 – 6.0 of the report and supported by **Appendix I** the Rose and Crown is duly categorised as pertaining to a bat roost suitability of '**Moderate**', in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023), triggering the requirement for further surveys.

Table 7.2. Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability or PRF-I	Moderate roost suitability	High roost suitability or PRF-M
One survey visit. One dusk emergence survey[a] (structures). No further surveys required (trees).	Two separate dusk emergence survey visits[b].	Three separate dusk emergence survey visits[b].

*It is recommended that **two dusk emergence surveys** are conducted at the site within the active season of bats (May – August, extending into September in some cases), in order to establish if / how the building is being used by bats, and if so, identify the species present, abundance, roost locations and flight lines around the site following emergence. A total of **four surveyors** would be required to cover the potential roosting features as described for each survey, and the surveys must be spaced a minimum of three weeks apart in accordance with current BCT guidance.*

Birds

Regarding wider breeding bird species, there are a range of viable nesting platforms within the trees, woodland and hedgerows onsite, which could provide suitable nesting locations within the nesting bird season of March – August, inclusive.

Any works impacting upon the vegetation should therefore be carried out outside of the breeding bird season, typically March – September inclusive. For works within the breeding bird season, any areas that can support nesting birds should be checked by a professional Ecologist for nesting birds within 48 hours or less prior to works commencing.

Other terrestrial mammals

Badgers and hedgehogs have the potential to be impacted upon by the works.

*A programme of Reasonable Avoidance Measures (RAMs) is recommended to be enacted on the site to prevent impacting this species. See **Section 7.0** for details.*

Herpetofauna

The presence of common amphibians is considered possible onsite.

It is recommended that the RAMs outlined for mammals are extended to include common amphibians.

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1.0 Introduction & Scope

1.1 As part of a proposed planning application with Kirklees Council concerning the Rose and Crown in Slaithwaite, Tyrer Ecological Consultants carried out a Preliminary Ecological Appraisal (PEA) in July 2024.

1.2 The PEA was commissioned by Holme Planning Partnership; proposals are understood to involve the redevelopment of the existing building and extension within the hardstanding area for residential purposes. See **Figure 1.1** for an existing site plan.

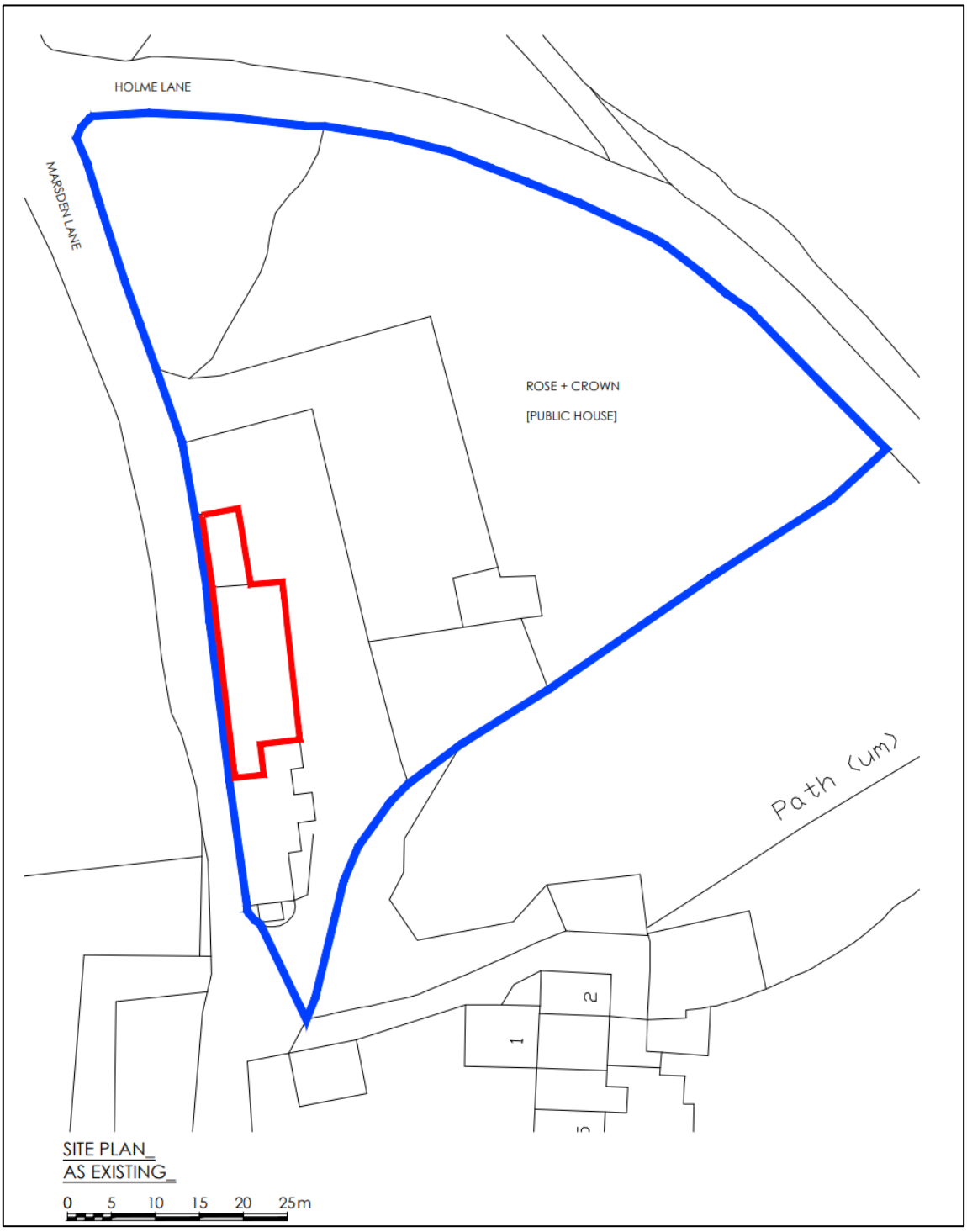

Figure 1.1 – *Existing Site Plan © Eight_OneTwo Architects*

1.3 As part of the Local Planning Authorities (LPA) planning policies and obligations to the Planning Framework, ecological surveys are generally required prior to planning permission being granted, particularly where protected / priority habitats or species are, or may be, present, and where these species have the potential to be impacted by the proposals for which the applicant seeks consent.

1.4 The PEA was carried out in accordance with the 'Guidelines for Preliminary Ecological Appraisal, 2nd Edition' (CIEEM, 2017) and all associated 'CIEEM Competencies for Species Survey (CSS)', whilst this report has been presented in accordance with the British Standard 42020:2013 Biodiversity – Code of Practice for Planning and Development.

Aims & Objectives

1.5 The appraisal aims to ascertain the baseline nature of the site and, where possible, obtain information on any priority wildlife habitats, or species, that may be present and if so determine if they will be affected by the proposals. The survey, therefore, includes the following objectives:

- Gather and present baseline ecological information on site/off site (as necessary) within a suitable report,
- Identify, measure and map habitats using UK Habitat Classification – Habitat Definitions Version 2.0 (2023) habitats,
- Identify any likely ecological constraints associated with the proposals for the site (i.e. the presence of protected / priority habitats or species that exist within the confines of the application boundary, or zone of influence (ZOI),
- Identify measures likely to be required in line with the mitigation hierarchy (i.e. impact avoidance > minimisation > mitigation > compensation),
- Identify any additional survey requirements,
- Ascertain the baseline value of the habitats on site, to allow for the completion of a 'Biodiversity Statement',
- Identify general enhancement opportunities for biodiversity in line with national and local planning policy,
- Set out any requirements for post-development monitoring, management, or other commitments, and how they can be secured, where required.

1.6 As a functioning component of this specific ecological appraisal:

- Habitats on site were identified, measured and mapped using the UK Habitat Classification – Habitat Definitions Version 2.0 (2023),
- Buildings and trees were subject to preliminary roost assessment (PRA) for Bats and scored against the bat roost suitability parameters defined in the Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023),
- Habitats were assigned and condition assessed in accordance with Biodiversity Net Gain Principles and Rules (DEFRA, February 2024) covered in the most recent User Guide[1].

[1] See: https://assets.publishing.service.gov.uk/media/65c60e0514b83c000ca715f3/The_Statutory_Biodiversity_Metric_-_User_Guide_.pdf

1.7 This report therefore provides important baseline information as derived from the diurnal appraisal process outlined above and recommends any necessary additional surveys, or work, where applicable, to provide a conclusive ecological impact assessment.

1.8 The Applicant should be aware then that if during the appraisal:

- The application site/area was found to be suitable for any European Protected Species (EPS), otherwise protected, or priority habitats / communities / species, or,
- Signs of use by particular protected species were found, or suspected, or,
- Seasonal constraints significantly limit the gathering of ecological information to arrive at an accurate conclusion upon which the planning application can proceed;

Then more detailed surveys may be recommended where necessary, to allow the ecologist to arrive at a conclusive impact assessment.

1.9 If protected species were subsequently found either during appraisal or during detailed further surveys and / or may be affected by the development proposals, then a European Protected Species Mitigation Licence (EPSML) may be required to proceed with the development.

1.10 Where more detailed surveys are recommended by the Ecologist, following ecological appraisal, then LPAs, on the advice of their ecological advisors, may not grant permission until such time that all relevant material information is gathered in accordance with their obligations to the legislature.

1.11 Protected / priority species omitted from this report have been discounted due to negating factors including obvious absence / isolation of suitable habitats, and / or distributional aspects negating the necessity to survey for them, and / or the proposed works were not considered to impact the species or encroach on areas where the species may be present.

2.0 Legislation & Policy

2.1 The legislature considered for the purposes of this report includes the following:

- Biodiversity Net Gain: Good practice principles for development (2019),
- BS 42020:2013 Biodiversity – Code of Practice for Planning and Development (2013),
- Conservation of Habitats and Species Regulations (2017) (as amended),
- Countryside Rights of Way (CRoW) Act (2000),
- Natural Environment and Rural Communities (NERC) Act (2006),
- National Planning Policy Framework (2023) (as last revised),
- Protection of Badgers Act (1992),
- The Environment Act (2021), including all six statutory instruments in relation to BNG,
- The Hedgerow Regulations (1997),
- The Invasive Alien Species (Enforcement and Permitting) Order 2019,
- Town and Country Planning Act (1990),
- Wild Mammals Protection Act (1996),
- Wildlife and Countryside Act (1981) (as amended).

2.2 These acts entail relevance to both protected and invasive species. The degree of protection offered to taxa provided within existing UK and EU legislature often varies depending on species / group, for example, some species may purely be protected during one of its life stages (e.g. common species of breeding bird whilst nesting / with eggs / young); some species may receive full protection within the EU, whereas others may be protected solely on a national basis (e.g. grass snake).

2.3 **Table 2.1** contains appropriate legislature to each species / group specifically respective to the site and provides the relevance of said legislation.

Table 2.1 – Relevant legislation

Species Group / Species	Relevant Legislature	Level of Protection
Badger	Protection of Badgers Act (1992), Wildlife and Countryside Act (1981) (as amended)	Illegal to: Wilfully kill, injure or take a badger (or attempt to do so), cruelly ill-eradicate a badger, dig for a badger, Intentionally or recklessly damage or destroy a badger sett or obstruct access to it, cause a dog to enter a badger sett, disturb a badger when it is occupying a sett.
Bats	CRoW Act (2000) Conservation of Habitats and Species Regulations (2017) (as amended) Wildlife and Countryside Act (1981) (as amended)	All British bats and their roosts are afforded full protection from damage/destruction and bats may not be injured/killed/taken at any life stage. Once identified, roosts are protected whether the bat is in occupation or not.

Species Group / Species	Relevant Legislature	Level of Protection
Birds	CRoW Act (2000) Wildlife and Countryside Act (1981) (as amended)	All wild birds (with only minor exceptions) and their nests whilst being built or containing eggs or dependant young are protected. Birds listed on Schedule 1 Wildlife & Countryside Act (1981) (as amended) are afforded a greater level of protection.
Great Crested Newt (GCN)	CRoW Act (2000) Conservation of Habitats and Species Regulations (2017) (as amended) Wildlife and Countryside Act (1981) (as amended)	Great Crested Newts (GCN's) are fully protected from disturbance, killing, injuring or possession at any life stage. Confirmed breeding ponds and resting places are afforded the same protection.
Invasive Plant Species	Wildlife and Countryside Act (1981) (as amended) The Invasive Alien Species (Enforcement and Permitting) Order 2019	Species listed within Schedule 9/Schedule 2 as invasive, including Japanese knotweed (*Reynoutria japonica*) and Himalayan balsam (*Impatiens glandulifera*), for example, carry notoriety regarding development. The Acts make it an offence for any person to grow or cause to grow in the wild any plants listed as invasive.
Reptiles	Conservation of Habitats and Species Regulations (2017) (as amended) – SL/SS Wildlife and Countryside Act (1981) (as amended) CRoW Act (2000)	All native reptile species have some degree of protection in the UK, through section 8(1) and (5) (specified in Schedule 5) of the Wildlife and Countryside Act 1981 (as amended). Sand lizard and smooth snake are species of principal importance however with greater protection..

Relevant Policy

2.4 Guidance for Local Authorities: Extract from Office of the Deputy Prime Minister – Circular 06/2005:

"It is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision".

2.5 Paragraph 193 of the National Policy Planning Framework (as revised in December 2024) states:

"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[2] 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."

2.6 Policy LP30 of the Kirklees Council Local Plan (2019) entitled 'Biodiversity and Geodiversity' echoes this national focus on preserving and enhancing biodiversity for the benefit of protected species, and says:

"Development proposals will be required to:-

- *(i) result in no significant loss or harm to biodiversity in Kirklees through avoidance, adequate mitigation or, as a last resort, compensatory measures secured through the establishment of a legally binding agreement;*
- *(ii) minimise impact on biodiversity and provide net biodiversity gains through good design by incorporating biodiversity enhancements and habitat creation where opportunities exist;*
- *(iii) safeguard and enhance the function and connectivity of the Kirklees Wildlife Habitat Network at a local and wider landscape-scale unless the loss of the site and its functional role within the network can be fully maintained or compensated for in the long term;*
- *(iv) establish additional ecological links to the Kirklees Wildlife Habitat Network where opportunities exist; and*
- *(v) incorporate biodiversity enhancement measures to reflect the priority habitats and species identified for the relevant Kirklees Biodiversity Opportunity Zone"*

Priority Habitats & Species

2.7 In the United Kingdom, legal protection and otherwise legislative recognition is afforded to particular habitats and species based on a variety of ecological factors. These are typically referred to as priority habitats and species, and can be identified under a variety of legislation and local policy, notably the UK Biodiversity Action Plan (UKBAP), Section 41 (s.41) of the NERC Act as well as under Local Biodiversity Action Plans (LBAPS).

Biodiversity Net Gain

2.8 The National Planning Policy Framework (NPPF), revised in December 2024, legislates net gain in biodiversity through paragraphs 8(c), 187(d), 192(b) and 193(d). An effort should be made, therefore, through the development design to provide ecological enhancement in order to deliver an overall increase in biodiversity, and opportunities to incorporate biodiversity in and around developments should be encouraged.

[2] For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat

2.9 The Environment Act 2021 ('The Act') came into force in November 2021. Aspects of the Act relating to BNG came into force on the 12th February 2024, whereby BNG is mandatory under Schedule 7A of the Town and Country Planning Act 1990 (as inserted by Schedule 14 of the Environment Act 2021).

2.10 The Act is supported by secondary legislation, consisting of six statutory instruments laid within law, of which the relevant legislation includes:

- The Environment Act 2021 (Commencement No. 8 and Transitional Provisions) Regulations 2024[3]
- The Biodiversity Gain Site Register Regulations 2024[4]
- The Biodiversity Gain Site Register (Financial Penalties and Fees) Regulations 2024[5]
- The Biodiversity Gain Requirements (Exemptions) Regulations 2024[6]
- The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024[7]
- The Biodiversity Gain (Town and Country Planning) (Modifications and Amendments) (England) Regulations 2024[8].

[3] See: https://www.legislation.gov.uk/uksi/2024/44/contents/made
[4] See: https://www.legislation.gov.uk/uksi/2024/45/contents/made
[5] See: https://www.legislation.gov.uk/uksi/2024/45/contents/made
[6] See: https://www.legislation.gov.uk/uksi/2024/47/contents/made
[7] See: https://www.legislation.gov.uk/uksi/2024/48/contents/made
[8] See: https://www.legislation.gov.uk/uksi/2024/50/contents/made

3.0 Methodology

3.1 As part of the ecological appraisal report, a desk-top and field-based study is conducted. Methods for both components of the appraisal are given below.

Desktop Study

3.2 Prior to a site visit, a desktop study was conducted using online resources to obtain information pertaining to any sites afforded statutory (e.g. SSSI) and non-statutory (e.g. LWS) designations for nature conservation within 2.0 kilometres of the site boundary. To do so, the Multi Agency Geographic Information for the Countryside (MAGiC – provided by DEFRA) was accessed to gather such information; this particular interactive mapping service was also used to locate any locally granted European Protected Species Mitigation Licenses (EPSML) and species records to further inform conclusions concerning such species in the context of the study site and its proposed development.

3.3 Historic satellite imagery was reviewed using sources such as Google Earth (© 2023/24) to help establish past use of the land and determine the nature of adjoining and extending habitats; such information aids in the understanding of how the site might interact with its surroundings ecologically and its value in that context, and how the development may impact at a wider scale.

3.4 In addition, the Kirklees Council 'Search planning applications' online function was utilised to help inform the desktop study by analysis of existing publicly accessible ecological survey results that have been carried out locally within the previous five years.

3.5 A commercial data request to the Local Environment Records Centre serving the area, in this case West Yorkshire Ecology, has not been sourced at this time, with the combination of online EPSML data, extensive company records and the daytime survey data available to the ecologist considered to contain enough information in relation to the protected species likely to be present on site. **If, however, a data search is considered to be necessary by the Local Authority or advisory body to better inform the appraisal, a proportionate data search should be commissioned with results interpreted into the conclusions and recommendations of a re-issued / updated report.**

1) The Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK (CIEEM, 2020) states data searches in:

"*Situations where the data search would be extremely unlikely to provide information needed to inform the assessment, due to the scale and location of the proposed development. The appropriateness of excluding a data search will need to be judged on a case-by-case basis as, in most situations, it will be essential to carry out such a search even if the development is very small or is likely to have a low impact."*

Field survey

3.6 A daytime preliminary ecological appraisal (PEA) was conducted on the 17th July 2024 in clear conditions (17ºC), wind 3/12 (Beaufort scale), 20% cloud, by the following surveyor (see **Table 3.1** overleaf).

Table 3.1 – Site surveyor credentials

Name	Description of most relevant credentials
Mr. H. Mulligan Qualifying CIEEM	• Consultant Ecologist with 2 years training and experience, • MBiolSci in Biological Sciences (Zoology), • Accredited agent on the Natural England Great Crested Newt: CL08 Class 1 licence (2022-10604-CL08-GCN) of Mr. D. Burrows Qualifying CIEEM, • Accredited agent on the Natural England Class 2 bat license of Mrs K Wilding CEnv MIEMA ACIEEM (CLS-14227), • Holder of a FISC Level 3 (2023) (Botanical competency), • Meets the requirements of CIEEM's Competency Framework Section S (Surveying) to Capable level.

Floristic assessment

Habitats

3.7 The survey followed the UK Habitat Classification Version 2.0 (UKHabs, 2023) methodology, which was introduced as the successor to the Joint Nature Conservation Committee (JNCC) Phase 1 Habitat Methodology standards (JNCC, 2010) in conjunction with the nationwide roll out of Biodiversity Net Gain. Survey techniques were also carried out with reference to the Chartered Institute of Ecology and Environmental Management (CIEEM) Technical Guidance Series "Guidelines for Preliminary Ecological Appraisal, 2nd Edition" (CIEEM, 2017).

Vegetation

3.8 During the survey walkover, botanical assemblages were assessed, and the land was inspected for the presence of red-listed (Stroh et al., 2014; Hodgetts, 2011), s.41 and LBAP species alongside specially protected species as listed under Schedule 8 of the Wildlife and Countryside Act (WCA) (1981) (as amended) and / or Schedule 5 The Conservation of Habitats and Species Regulations (2017) (as amended). Species nomenclature follows Stace, C. (2019) – definitive English names.

3.9 In addition to attributing ecological value to red-listed / BAP species, in accordance with existing CIEEM guidance, a geographic frame of reference is also adopted. Plant species and habitats may be recognised for their ecological value on a geographical scale which is adopted on a site-to-site basis (*International – National – Regional – County/Vice-County – Local*). For botanical species list compiled in full, see **Appendix II**.

3.10 In combination with assessing the area in relation to flora and habitats of conservation importance, the land was also assessed in relation to the presence of invasive non-native species (INNS) as listed under Schedule 9 (Part II) of the Wildlife and Countryside Act (1981) (as amended) and Schedule 2 of The Invasive Alien Species (Enforcement and Permitting) Order 2019 (IASO).

Biodiversity Net Gain

3.11 Assessment of baseline Area Habitat / Hedgerow / Watercourse units have been carried out and assessed separately in accordance with the guidance, principles, and rules – where present on site.

3.12 Measurement of habitats was carried out using a combination of desktop software – QGIS, Google Earth and MAGiC Maps 2023/24, whilst physical habitat measurements were also taken in the field during ground truthing, where necessary.

Faunal assessment

3.13 During the site walkover, direct presence and / or evidence of priority fauna encountered was documented, whilst in tandem the area was assessed for the potential to support the priority species discussed in **Section 6.0**. The walkover also aimed to identify any ephemeral pools or unmapped waterbodies.

Bats

3.14 Criteria for preliminary bat roost assessment are based upon the determinants given in the Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023) (see **Figures 3.1 – 3.3**).

3.15 The site was assessed for bats; a daytime bat walkover (DBW) was undertaken to observe, assess and record any habitats or features suitable for usage by bats, either as commuting, foraging or roosting provision. Wider connectivity to other habitats was also considered during the DBW.

3.16 Buildings and other permanent / semi-permanent structures (where present) would be subject to a preliminary roost assessment (PRA), to identify potential areas which may be of value to bats and to determine evidence of use. This typically involves a systematic search of the external aspects of any structure(s), comprising an investigation of features known to be used by bats (for example roofing material, soffits, fascia, lead flashing hanging tiles) using a high-powered torch and close-focus binoculars, where necessary. Where possible, an internal assessment of the structure was also carried out, with the aid of a high-powered torch and endoscope, where necessary, to identify any evidence of bat use of a structure. Field signs of bats typically comprise bat droppings, urine splashing, fur-oil staining, incidental animal presence, dead specimens and / or the presence of prey items, such as moth wings.

3.17 Trees (where present) would be subject to a ground level tree assessment (GLTA) using equipment such as close-focus binoculars and a high powered-torch. Potential roost features (PRFs) can include woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks or splits in stems and branches, partially decayed lifted bark, knot holes, man-made holes, tear-outs, cankers in which cavities have developed, other hollows or cavities, including butt-rots, double-leaders forming compression forks with included bark, gaps between overlapping stems or branches, partially detached climbing species with stem diameters in excess of 50mm or pre-existing bat / bird boxes. These PRFs can then be determined as PRF-I or PRF-M, dependent on their suitability for individual / low numbers of bats or their capability to host multiple bats.

3.18 Factors considered during the preliminary roost assessment include:

- Practical experience of the surveyor,
- Knowledge of bat species relevant to the site location and geographical range,
- Nature of the immediate / surrounding habitat in relation to foraging opportunities,
- Presence / absence of roost potential,
- Value and types of roost potential, if present (i.e. – maternity, hibernation, transitional).

Table 4.1. Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Potential suitability	Description	
	Roosting habitats in structures	**Potential flight-paths and foraging habitats**
None	No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible[a]	No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions[b] and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats[c]).	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions[b] and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions[b] and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

a Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute).

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

c Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2016 and Jansen *et al.*, 2022). Common pipistrelle swarming has been observed in the UK (Bell, 2022 and Tomlinson, 2020) and winter hibernation of numbers of this species has been detected at Seaton Delaval Hall in Northumberland (National Trust, 2018). This phenomenon requires some research in the UK, but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in prominent buildings in the landscape, urban or otherwise.

Figure 3.1 – *BCT guidelines extract*

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

Figure 3.2 – *BCT extract on tree roost suitability criteria*

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 3.3 – *BCT extract on tree roost categorisation criteria*

Birds

3.19 The site was inspected for evidence of nesting and suitability for relevant species. Bird species observed and heard were recorded on site, and a search was made for nest material, or areas suitable for nesting – this can take the form of searching structures, woody vegetation, semi-aquatic vegetation such as reeds and / or ground flora. Elevations of any buildings or structures on site were inspected for evidence of birds that show a high dependency upon built structures, many of which are in a state of decline. These might include the following species for example (list non-extensive):

- House martin (*Delichon urbica*): Birds of Conservation Concern (BoCC) red status,
- House sparrow (*Passer domesticus*): BoCC red status,
- Starling (*Sturnus vulgaris*): BoCC red status,
- Swift (*Apus apus*): BoCC red status.

3.20 Additional to the site's capacity to support generally common species for breeding, the area was also subject to an assessment for wider capacity to support species with extra protection under Schedule 1 of the Wildlife & Countryside Act (1981) (as amended) and other priority species.

Other terrestrial mammals

3.22 The site was also assessed for the presence / suitability of European hedgehog (*Erinaceus europaeus*) and other priority mammals.

Herpetofauna

3.23 During desktop assessment, a 250 metres radial search was undertaken from a site central grid reference in relation to the presence of ponds, ditches or other water bodies that may support great crested newt (GCN) (*Triturus cristatus*). The information gathered would then be used to aid in establishing if more detailed surveys are required.

NB: *English Nature's (now Natural England) Great Crested Newt Mitigation Guidelines (2001) states ponds within 500m of a proposed development site should be considered for their potential to support GCN, however, in some instances this distance may be reduced to 250m due to the presence of physical barriers and obstructions or based on the likely magnitude of impacts arising from the proposed development.*

3.24 Following current best practice considering the partial roll out of District Level Licencing (DLL) across England and based on likely effects, a proportionate assessment of the water bodies range within 250m from site has been applied. Where a development is anticipated to affect GCN the search can be extended up to 500m or more.

3.25 The site and surrounding habitats were also assessed relative to their potential to offer suitability for wider, generalist amphibians, in addition to GCN, for example common toad (*Bufo bufo*) and common frog (*Rana temporaria*).

3.26 The site and its surroundings were assessed for suitability for use by reptiles, with particular attention paid to features that could be used as basking areas (*e.g.* south-facing slopes), hibernation sites (*e.g.* banks, walls, leaf litter, piles of hardcore) and opportunities for foraging (*e.g.* rough grassland and scrub). Beebee & Griffiths (2000) state specific habitat preferences of common UK reptiles:

- Common lizard (*Zootoca vivipara*) use a variety of habitats from woodland glades to heaths, walls and pastures, as well as brownfield sites,

- Slow worm (*Anguis fragilis*) use a variety of habitats, similar to the common lizard, however are more associated with gardens and brownfield sites.

3.27 In assessment of a site for reptiles several important habitat characteristics are considered, outlined in **Table 3.2** below, as derived from the Reptile Habitat Management Handbook (Edgar, 2010).

Table 3.2 – Important habitat characteristics for reptiles

1. Location (in respect of species range)	**7. Connectivity to good quality habitat**
2. Vegetation structure	**8. Prey abundance**
3. Insolation	**9. Refuge opportunity**
4. Aspect	**10. Hibernation habitat potential**
5. Topography	**11. Disturbance regime**
6. Surface geology	**12. Egg-laying site potential**

Invertebrates

3.28 The site was assessed for the presence of features that should be considered of high value to invertebrates. Several important features were considered, based on the assemblage descriptions provided within the Research Report "Surveying terrestrial and freshwater invertebrates for conservation evaluation" (NERR005, 2007), including but not limited to:

- Wood decay,
- Early successional mosaic habitat,
- Shaded ground layer,
- Still and flowing water.

Quality Assurance (QA)

3.29 The results, conclusions and recommendations of this report are based on a number of factors i.e.

- Skills and experience of the surveyor,
- Knowledge of flora and fauna relevant to the site location and geographical range,
- Nature of the immediate and surrounding habitat in relation to shelter, foraging and commuting opportunities.

3.30 The results, conclusions and recommendations of this report have been assessed by Mrs. K. Wilding, Director of Tyrer Ecological Consultants Ltd, and her assessment concurs with the findings and recommendations of the surveyor Mr. H. Mulligan.

4.0 Limitations

4.1 This report does not contain a comprehensive list entailing the totality of botanical taxa on site. Species listed within **Appendix III** are recorded from a combination of the seasonal timing that the survey took place and botanical identification skills of the surveyors. Many plant species are only evident at certain times of the year; consequently, it is possible that some plant species may have gone undetected.

4.2 The optimal time of the year to carry out a preliminary ecological appraisal / UK Habitats survey is April to October; the survey was therefore carried out within an optimal period.

4.3 The survey took place at a time when bats are within their active season and birds are within their breeding season, when evidence of each of these groups is most apparent; survey timing is therefore not considered a constraint in this instance.

4.4 The single waterbody within 250m of the site was not accessible on the day of the survey. While this is accepted as a limitation, a precautionary approach has been taken in relation to recommendations. As such, this is not considered to be a significant constraint.

4.5 All areas of the building could be accessed, and there were no external visual constraints. In considering all potential survey constraints, no significant limitations were experienced that might adversely influence the results, conclusions, and recommendations of this report.

5.0 Desk Study Results

5.1 The site of the proposed works (referred to in-part as “the application site” and “the site”) is situated on the corner of Holme Lane and Marsden Lane in rural western Slaithwaite, approximately 8.7km south-west of Huddersfield town (see **Figure 5.1** below). The site broadly comprises an actively working public house with associated access, car parking and landscaping.

Figure 5.1 – *Location of the red line boundary within the landscape © Google Earth Pro 2023/24*

5.2 The immediate environment is entirely ruralised in nature, with an undulating patchwork of pastoral fields extending in all directions, divided by small farm developments, scattered individual dwellings, minor roads and blocks of woodland. A large block of ancient, replanted woodland is located approximately 0.3km to the north, while the River Colne passes approximately 0.8km to the south.

Relevant Planning History

5.3 Several previous planning applications have been undertaken at the site in the past 10 years, including a 2023 application (Reference: **2023/62/91708/W**), concerning the building’s partial change of use to make seven holiday lets. No ecological documentation is accessible as part of this application.

Designated Sites

5.4 A single statutory designated site for nature conservation is present within a 2.0km search radius of the site (see **Table 5.1** for information and **Figure 5.2** overleaf for a visual aid).

Table 5.1 – Statutory Designated Sites within 2.0 kilometres of application site and reasons for designation

Site name	Designation type	Interest features
South Pennine Moors (1.2 kilometres west)	Site of Special Scientific Interest (SSSI) Special Protection Area (SPA) Special Area of Conservation (SAC)	A 20,983.05ha site that lies between Ilkley to the north and the Peak District National Park to the south. The site is the largest area of unenclosed moorland within West Yorkshire and contains the most diverse and extensive examples of upland plant communities in the country. Habitats within the site include blanket bog, wet and dry heaths, acid grasslands and three habitats that area rare enough within Europe to be listed on Annex 1 of the EC habitats and species directive (92/43) EEC. Birds recorded at the site include merlin (*Falco columbarius*), golden plover (*Pluvialis apricaria*) and twite (*Carduelis flavirostris*). Of these birds mentioned, the site supports a significant portion of their populations.

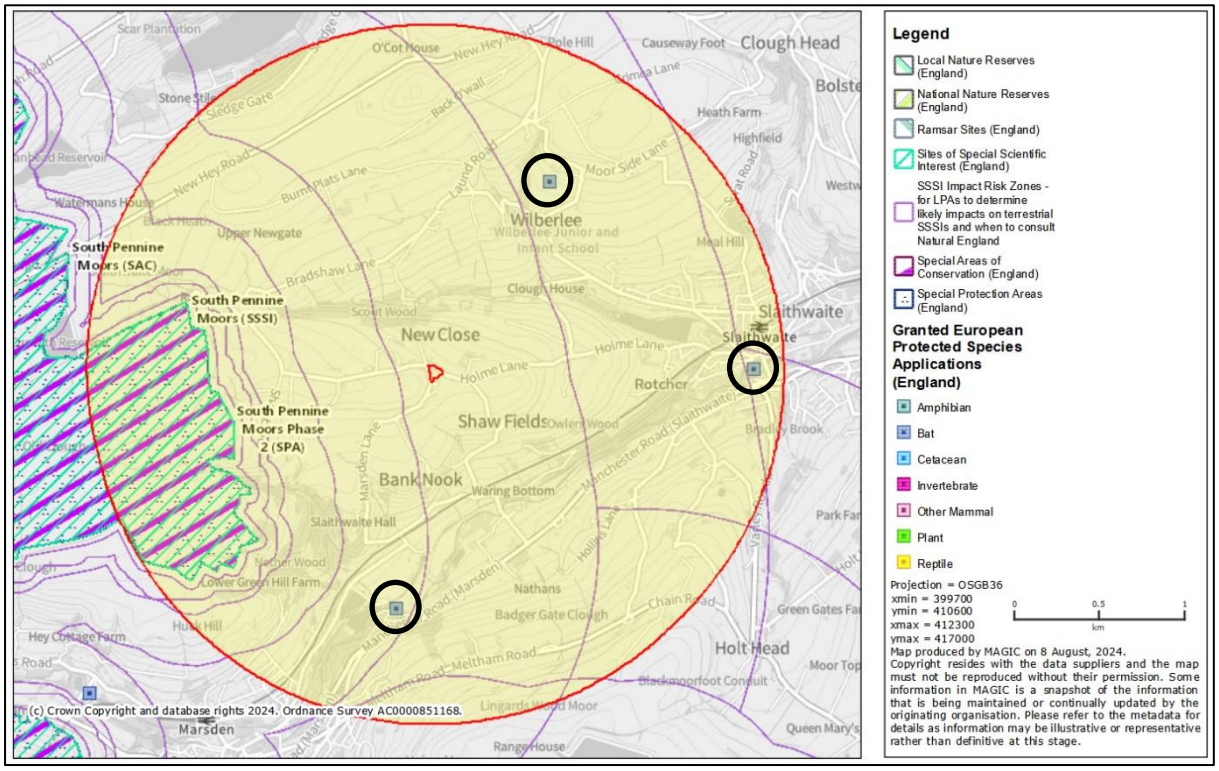

Figure 5.2 – *Designated site and EPSML data for the area within 2.0km of application site, with granted EPSMLs circled in black © MAGiC Maps 2024*

5.5 The site is also positioned within the Impact Risk Zone (IRZ) of South Pennine Moors SSSI. Based on the IRZ – Threshold Checker[9] available on MAGiC Maps 2024, the proposals do not present a likely risk of having a harmful effect on the surrounding terrestrial SSSIs and the Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites that they underpin.

[9] See: https://irz.geodata.org.uk/IRZ/step2.html?irzcode=3111221502000&notes=&location=351359,399223%20(IRZ%20polygon%20centre)

5.6 Where no impact to SSSI's is predicted, NE issue the following advice within their standing guidance on SSSI impact zones (NE, 2019):

"*It is important to note that the SSSI IRZs only indicate Natural England's assessment of likely risk to the notified features of SSSIs. Where they indicate such a risk is unlikely, this does not mean that there are no potential impacts on biodiversity or the wider natural environment.*"

Biodiversity Net Gain

5.7 The Kirklees Development Plan Policies Map, which displays spatial data for policies and land use priorities in accordance with the Local Plan and Neighbourhood Development Plan allocations and designations, was accessed and used to assess the strategic significance of habitats present within the site; based upon this data, the site falls within the following areas:

- Biodiversity Opportunity Zone – Mid-Altitudinal Grasslands,
- Green Belt,
- Strategic Green Infrastructure Network – River Colne Corridor.

5.8 The West Yorkshire BAP (WYBAP) was also accessed to assist with determining the strategic significance of on-site habitats.

Habitats

5.9 An online search of MAGiC Maps identified the following priority habitats within a 2.0km search radius (see **Table 5.2** below).

Table 5.2 – Priority habitats located within 2.0km buffer

Habitat Type	Designation	Distance to site
Ancient, replanted woodland	Ancient Woodland	0.3km north
Blanket bog	Priority Habitat Inventory	1.3km south-west
Deciduous woodland	Priority Habitat Inventory	0.3km north
Good quality semi-improved grassland	Priority Habitat Inventory	0.8km west
Lowland dry acid grassland	Priority Habitat Inventory	1.5km south
Lowland heathland	Priority Habitat Inventory	0.5km west
Lowland meadows	Priority Habitat Inventory	0.4km north
Purple moor grass and rush pasture	Priority Habitat Inventory	0.5km north
Traditional orchards	Priority Habitat Inventory	1.1km south-east
Upland heathland	Priority Habitat Inventory	0.6km south
Woodpasture and parkland	BAP Priority Habitat	1.1km south

Vegetation

5.10 The site is positioned within a 'moderate' zone of the summarised botanical value map 2022[10] on MAGiC Maps 2024, indicating that the wider area is of moderate botanical value due to the

[10] Further information available https://www.data.gov.uk/dataset/86b755f2-b28f-48c9-b5b6-648d6bab6c40/summarised-botanical-value-map

coverage of species indicative of woodland, freshwater, grassland and fen, marsh and swamp priority habitats.

Bats

5.11 An online search of MAGiC Maps revealed that three European Protected Species Mitigation Licences (EPSML) for bats have been granted within a 2.0km radius of the site boundary, see **Table 5.3** for further details.

Table 5.3 – EPSML data records from MAGiC Maps

Licence Number	Distance from site	Context (where relevant)
2014-5943-EPS-MIT	1.8km east	Common pipistrelle & soprano pipistrelle; damage and destruction of resting place
2015-16841-EPS-MIT	1.3km north-east	Common pipistrelle; destruction of resting place
2018-38561-EPS-MIT	1.3km south	Common pipistrelle & soprano pipistrelle; destruction of resting place

5.12 Habitats in the immediate vicinity of the site provide moderate value foraging opportunities for bats, with hedgerows and tree lines in proximity offering connectivity between the site and areas of woodland. The habitats present are considered likely to support species associated with roosting in occupied dwellings such as the common pipistrelle, alongside species associated with woodland habitats such as the brown long-eared.

NB: *Where quality habitat is present close to buildings then the percentage use of those buildings, by bats, increases given that roost opportunities are available and vice versa.*

Birds

5.13 Bird species in immediate proximity to the site are likely to be common garden and woodland bird species, though the moorlands in the wider environment are likely to host a wide array of breeding birds including passerines, waders, raptors, and farmland birds.

5.14 The aforementioned linear and area features suitable for bats would also afford connective habitat for bird species in the wider landscape.

Other Terrestrial Mammals

Herpetofauna

5.16 There is an absence of EPSMLs pertaining to GCN within a 2.0km radius of the site (see **Figure 5.2** previous for visual aid).

5.17 Based on the desktop assessment and ground truthing during the survey, there is a single standing waterbody within 250m of the application site, a pond 140m to the north (see **Figure 5.3** overleaf).

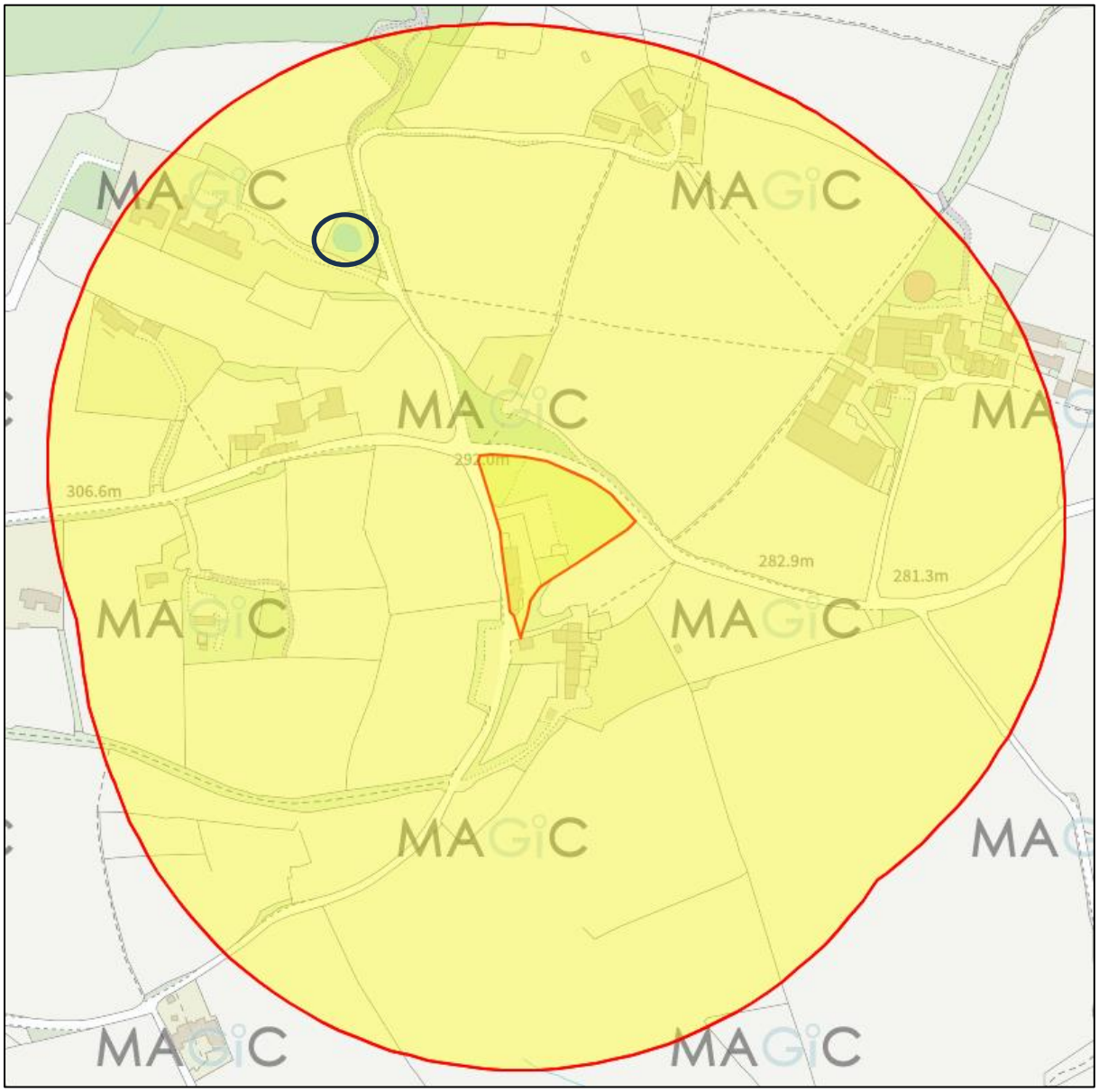

Figure 5.3 – *Standing waterbodies within 250m of the application site © MAGiC Maps 2024*

5.19 The immediate surroundings are considered to offer relatively poor suitability for GCN; land use is dominated by highly disturbed pastoral farmland, interspersed by hardstanding and housing, with potentially suitable habitats such as small woodland blocks largely isolated and disconnected from each other.

5.20 Based on the above, opportunities for more generalist amphibians are also scarce, though these species are less specialised and could feasibly be present within the pastoral farmland and garden habitats.

5.21 The immediate environment is unlikely to offer any suitability for reptiles, with most of the land use being homogenous and lacking in ecotones or habitat mosaics likely to support this group.

Invertebrates

5.22 The habitats in proximity are also unlikely to support a specially protected or significant assemblage of invertebrates, given the homogenous nature of the environment.

6.0 Field Survey Results

6.1 Habitat Survey & BNG Baseline Summary

6.1.1 See **Table 6.1.1** (below) for baseline information and habitat descriptions; refer to **Appendix I** for any supporting imagery; additional scientific names are given in **Appendix III**. Refer to **Appendix V** – UK Habitats Map for the location of described habitats & Target Notes (TN). **Appendix II** features full Condition Assessment Sheets.

Table 6.1.1 – UK Habitat types within the survey area

Area habitat	Sec. Codes	Description
g4 Modified grassland	**16** Tall forbs **106** Mown **127** Sward type mosaic **510** Bare ground	Much of the east of the site is comprised of a relatively species-poor modified grassland, dominated by species typical of enriched grasslands such as annual meadow-grass (*Poa annua*), dandelion (*Taraxacum officinale* **agg.**), creeping buttercup (*Ranunculus repens*), ribwort plantain (*Plantago lanceolata*) and white clover (*Trifolium repens*). The majority of this grassland is closely mown, though the edges along the north-eastern and south-eastern site boundary has been left unmown, creating areas of tall, tussocky forbs dominated by common nettle (*Urtica dioica*), rosebay willowherb (*Chamaenerion angustifolium*) and taller grasses such as cock's-foot (*Dactylis glomerata*) and false oat-grass (*Arrhenatherum elatius*), alongside areas of the invasive Himalayan balsam (*Impatiens glandulifera*).
	516 Active management	**Condition:** Poor **Habitat Area:** 0.2077 ha **Strategic Significance:** Formally identified in local strategy
u1 Built up areas and gardens	**828** Vegetated garden **847** Introduced shrub	A small area to the south of the site is comprised of an ornamental garden dominated by introduced, non-native shrubbery. Species present include snowberry (*Symphoricarpos sp*.), butterfly-bush (*Buddleja davidii*) and the invasive wall cotoneaster (*Cotoneaster horizontalis*).
		Condition: N/A **Habitat Area:** 0.0230 ha **Strategic Significance:** Formally identified in local strategy
u1b5 Buildings	**-**	The pub building onsite.
		Condition: N/A **Habitat Area:** 0.0314 ha **Strategic Significance:** Area / compensation not in local strategy / no local strategy

u1b6 Other developed land	**804** Car Park	Various areas of hardstanding utilised as access and car parking.
		Condition: N/A **Habitat Area:** 0.1369 ha **Strategic Significance:** Area / compensation not in local strategy / no local strategy
w1g Other woodland – broadleaved	**-**	The north-western corner of the site is comprised of a very young stand of woodland, evidently planted within the past 10 years. Species present include goat willow (*Salix caprea*), rowan (*Sorbus aucuparia)* and ash (*Fraxinus excelsior*) with an understorey featuring bramble (*Rubus fruticosus* **agg.**), creeping thistle (*Cirsium arvense*) and Himalayan balsam.
		Condition: N/A **Habitat Area:** 0.0563 ha **Strategic Significance:** Formally identified in local strategy
Individual trees	**-**	Two small sycamore (*Acer pseudoplatanus*) trees located close to the eastern corner of the site.
		Condition: Moderate **Habitat Area:** 0.0081 ha **Strategic Significance:** Formally identified in local strategy
Individual trees	**-**	Three medium sycamore trees located onsite, two within the vegetated garden parcel and one beside the two small trees above.
		Condition: Good **Habitat Area:** 0.0489 ha **Strategic Significance:** Area / compensation not in local strategy / no local strategy
Linear habitat	**Sec. Codes**	**Description**
h2a5 – Other native hedgerow	**-**	A very disjointed hawthorn (*Craetagus monogyna*) hedgerow is located along the north-eastern and south-eastern boundary of the site.
		Condition: Poor **Habitat Length:** 0.078 km **Strategic Significance:** Formally identified in local strategy

h2b – Ornamental and non-native hedgerow	**-**	Short stretches of cypress (*Cupressus sp.*) hedgerow present bordering the vegetated garden area.
		Condition: Poor **Habitat Area:** 0.033 ha **Strategic Significance:** Formally identified in local strategy

6.2 Vegetation

Notable species

6.2.1 No species of conservation importance were located anywhere within the site during the appraisal.

Invasive non-native species (INNS)

6.2.2 One INNS, listed under Schedule 2 (Part II) of the Invasive Alien Species (Enforcement and Permitting) Order (IASO) 2019 was located within the site, namely Himalayan balsam, in various areas throughout. In addition, one INNS listed under Schedule 9 (Part II) of the Wildlife and Countryside Act (1981) (as amended) was located within the vegetated garden area, wall cotoneaster. See **Appendix V** Target Note for specific locations.

6.3 Bats

6.3.1 The Rose and Crown is a two-storey, breezeblock and stone-built building actively used as a public house; the building has a multi-pitched, stone tiled roof, and has approximate maximum dimensions of 30m x 10m x 10m (length x width x height). The structure features components such as timber fascia, stone sills and lintels, and open eaves. In respect of its condition, the surveyor is not qualified to assess structural state; however, the aesthetic condition of the building was adjudged to be moderate, with some degradation noted externally.

6.3.2 Internally, three separate loft spaces are present in the building, with the remainder of the building being open to the ridge; see **Figure 6.3.1** for approximate locations of the spaces and **Table 6.3.1** for descriptions of each space.

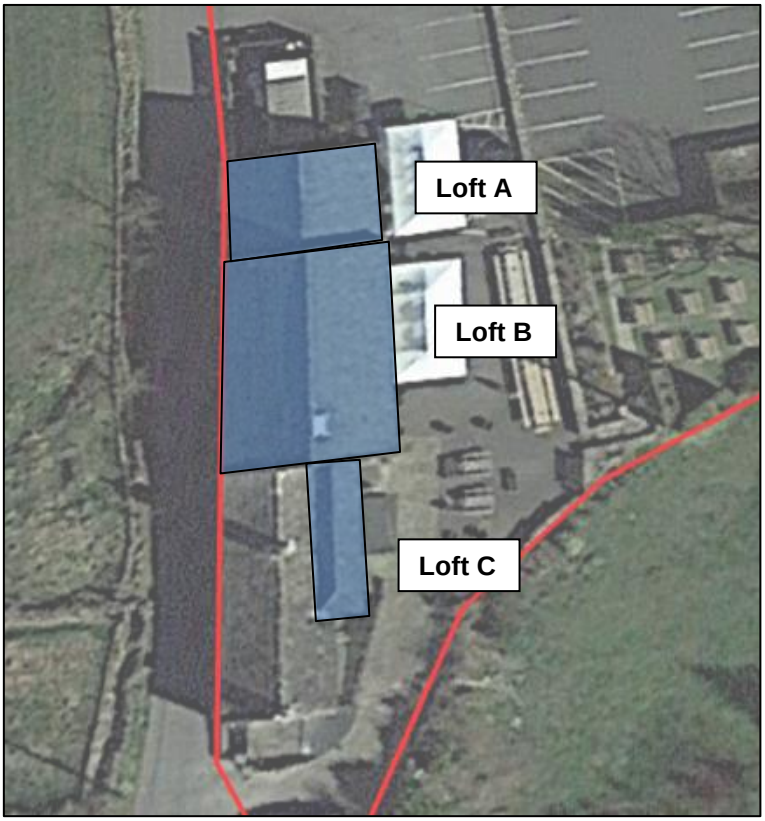

Figure 6.3.1 – *Approximate locations of loft spaces within the building*

Table 6.3.1 – Description of structure and thermal character of loft spaces

Loft Space	Description of Space
Loft A	Loft A is of a purlin and rafter construction with an apex of approximately 2.5m. The space is cramped, as it is used as storage for the public house, is very cobwebbed, and is cool, draughty and dark, though features a roof-mounted light.
Loft B	Loft B is the largest space, with an apex of approximately 3.5m and a purlin and rafter construction. This space is dark, relatively cool and draughty, and very undisturbed, with dense cobwebbing throughout.
Loft C	Loft C is a very small loft space, with an apex of just 1m, and is also of a purlin and rafter construction. This space is very cramped, cool and draughty, with dense cobwebbing.

6.3.3 Based on the above, it is considered that the building's loft spaces are broadly unsuitable for the breeding purposes of loft-dwelling species such as the brown long-eared bat; although the loft spaces are dark, and Loft B is open and would offer space for free flight, they all lack the consistent thermal characteristics required for the maternity use by these species. This does not necessarily rule out usage of the structure for alternative roosting purposes, with favourable foraging and commuting habitat in proximity to the site, though no evidence of loft-dwelling species was encountered by the surveyor.

6.3.4 A traditional bitumen 1f roof lining is present beneath the roof tiles in each of the loft spaces; where present, bitumastic underfelt or other such roof linings typically improve a building's value to bats, notably for crevice-dwelling bats of the Pipistrellus genus, whereby the bats roost between the lining and the roof cover material provided external opportunities exist. No evidence of crevice-dwelling species was encountered by the surveyor, though this is often the case owing to their crevice dwelling nature, and an absence of direct evidence does not necessarily indicate absence.

NB: *The breeding roosts of Pipistrelle bats are proportionally higher in occupied residential dwellings where the warm, dry conditions favour the requirements of a maternity colony but other structures are also used, especially for hibernation or by male bats which do not need the same conditions as a maternity colony.*

6.3.5 Externally, a number of PRFs were noted across the building; a number of roof tiles are lifted, there are opportunities beneath the areas with fascia, gaps at the gable verges, and at areas of open eaves. All of these features could offer ingress to the loft spaces or provide crevice roosting potential. In addition, various internal crevices exist within the partition walls that separate the various loft spaces.

6.3.6 Given the suitable habitat in proximity to the application site, and the abundant roosting opportunities identified on the building, the structure is duly categorised as pertaining to a bat roost suitability of '**Moderate**', in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023).

6.3.7 During the GLTA of the individual trees ons9te, no obvious PRFs were observed by the surveyor, with an absence of typical features that would provide roosting opportunity for bats.

6.3.8 Based on the above, each of the trees onsite are considered to pertain to a bat roost suitability of '**None**' in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023).

6.3.9 From a habitat suitability assessment in relation to bat activity, the individual trees and hedgerows onsite are likely of moderate value for commuting bats in that they provide a recognisable corridor of connectivity offsite, linking to other hedgerows and leading to wider woodland blocks in the wider environment.

6.4 Birds

6.4.1 In relation to WCA Schedule 1 specially protected bird species such as barn owl (*Tyto alba*), the site provides no suitable nesting platforms, direct evidence, or evidence of historic nesting, despite offering favourable hunting habitat within the surrounding area. Direct impacts to specially protected bird species can likely be ruled out as a result of the proposals.

6.4.2 In relation to more common bird species, no evidence of nesting was encountered during the survey, with the building considered to be absent of features that could be utilised by urbanised bird species or provide ingress for these species. However, the individual trees, hedgerows and woodland parcel are all likely to support a variety of breeding passerine birds during the nesting bird season of March – August inclusive. This could include common garden bird species such as robin (*Erithacus rubecula*), wren (*Troglodytes troglodytes*) and blackbird (*Turdus merula*).

6.5 Other Terrestrial Mammals

6.5.2 Whilst no direct evidence of hedgehog was identified, the site habitats provide suitable refuge with the woodland, hedgerows and taller grassland providing suitable foraging habitat and

potential hibernacula. Their occasional presence within the site is therefore considered possible.

6.6 Herpetofauna

Great crested newt (GCN)

6.6.1 Important elements to consider when assessing likely impacts against GCN includes:

- The scale, nature and magnitude of proposals,
- Site proximity to a potential breeding pond and to any additional ponds,
- Habitat linkage / barriers between potential breeding ponds and the site,
- Nature and extent of available terrestrial habitat around the pond,
- Area of site habitat loss,
- Nature of habitat to be lost and potential value to GCN,
- Most up to date Government guidance considering EPS.

6.6.2 As derived from the desktop assessment, there is an absence of granted EPSMLs or other GCN records within a 2.0km radius of the site, while a single standing waterbody is present within 250m of the site, 140m to the north.

6.6.3 In a terrestrial contextual assessment, the site provides some limited value habitat for GCN, with the hedgerows, woodland understorey and unmanaged grassland edges potentially offering suitable terrestrial habitat. However, given that the works are to be limited to the hardstanding areas, the complete absence of records in proximity to the site, and the disconnected and isolated nature of the single pond within 250m, it is considered that the presence of GCN at the site can be conclusively ruled out.

Wider amphibians

6.6.4 Despite the absence of a network of ponds, the habitats onsite are considered potentially suitable for common amphibians, with the features outlined previously for GCN offering suitability, and these species are far more robust and less sensitive than GCN. The presence of common amphibians onsite is thus considered to be possible.

Reptiles

6.6.5 The site offers some suitability for reptiles, with limited ecotones between taller grassland, mown grassland, woodland and hardstanding; despite this, the site is largely disconnected from wider habitats likely to support this taxon, with the surrounding habitats predominantly covered by disturbed farmland. Impacts to reptiles from the development are thus considered negligible.

6.7 Invertebrates

6.7.1 The habitats onsite are considered unlikely to support a locally notable assemblage given their location and similarity to much of the surrounding habitats.

7.0 Conclusions & Recommendations

Designated sites

7.1 The site is positioned within the Impact Risk Zone (IRZ) of South Pennine Moors SSSI. However, based on the IRZ – Threshold Checker available on MAGiC Maps 2024, the proposals do not present a likely risk of having a harmful effect on the surrounding terrestrial SSSIs and the Special Areas of Conservation (SACs), Special Protection Areas (SPAs) or Ramsar sites that they underpin.

Habitats

7.2 No habitats of national or local priority status were located within the site boundary during the diurnal appraisal to warrant any specific intervention measures.

7.3 Any landscaping should look to incorporate native species as discussed in **Appendix II**.

Vegetation

7.4 Two INNS, listed under either Schedule 2 (Part II) of the Invasive Alien Species (Enforcement and Permitting) Order (IASO) 2019 or Schedule 9 of the WCA (1981), were incidentally observed within the site during the survey, Himalayan balsam and wall cotoneaster in various areas and in dense abundances.

7.5 Whilst it is not illegal to host any species designated as such within a site, it is an offence, under current legislature, to knowingly permit the spread of INNS beyond the confines of your site, either via allowing it to grow unchecked or through the irresponsible removal and dumping of waste / plant matter.

7.6 To prevent further spread of these species from within the site, it is recommended that they are eradicated from the site prior to development. A Method Statement should be collated by a suitably qualified ecologist or invasive species specialist outlining how these species will be removed pre-works, including details regarding site biosecurity protocols.

7.7 Any landscaping or planting carried out during the works should consider local soil types and habitats, and as such should prioritise native species which will better tolerate the soil type present on site and provision for faunal species present in the immediacy.

Bats

7.8 Based upon the findings of the DBW and associated GLTA, covered through sections 5.0 – 6.0 of the report and supported by **Appendix I** the Rose and Crown is duly categorised as pertaining to a bat roost suitability of '**Moderate**', in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023), triggering the requirement for further surveys (see **Figure 7.1** below).

Table 7.2. Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability or PRF-I	Moderate roost suitability	High roost suitability or PRF-M
One survey visit. One dusk emergence survey[a] (structures). No further surveys required (trees).	Two separate dusk emergence survey visits[b].	Three separate dusk emergence survey visits[b].

Figure 7.1 – *BCT extract on 'Moderate' suitability criteria*

7.9 It is recommended that **two dusk emergence surveys** are conducted at the site within the active season of bats (May – August, extending into September in some cases), in order to establish if / how the building is being used by bats, and if so, identify the species present, abundance, roost locations and flight lines around the site following emergence. A total of **four surveyors** would be required to cover the potential roosting features as described for each survey, and the surveys must be spaced a minimum of three weeks apart in accordance with current BCT guidance.

7.10 The applicant should be aware that, if during further surveys, evidence is gathered that confirms bat(s) or their roost(s) are found on site and will be impacted upon, then a Protected Species licence may be required to legally commence with the proposals.

7.11 Natural England provides information and guidance about licensing and the following extract is included in that guidance:

"If you intend to apply for a licence for development, you are advised to seek the guidance of a consultant ecologist. Natural England's view is that a licence is needed if the consultant ecologist, based on survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is reasonably likely to result in an offence under the Conservation of Habitats & Species Regulations 2017 (as amended).

If the consultant Ecologist, on the basis of survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is reasonably unlikely to result in an offence being committed then no licence is required. However, in these circumstances Natural England would urge that reasonable precautions be taken to minimise the effect on European protected species should they be found during the course of the activity. If European protected species are found, cease the work until you have assessed whether you can proceed without committing an offence. A licence should be applied for if an offence/s is unavoidable, and the work should not commence until a licence is obtained.

The application should be completed by the developer and a consultant ecologist. The ecologist will need to be able to demonstrate to the satisfaction of Natural England that they have the relevant skills and knowledge of the species concerned.

7.12 Where more detailed bat surveys are recommended by the Ecologist, following an initial daytime investigation, then Local Planning Authorities, on the advice of their ecological advisors, may not determine the application until such time that all relevant information is gathered, i.e., by conducting dusk / dawn surveys. The advice that is provided by the ecological advisors is also in accordance with the obligations placed upon Local Authorities by way of its duties under the Conservation of Habitats & Species Regulations 2017 (as amended). Therefore, it would be prudent to make enquiries to the relevant departmental Planning Officer before submitting a Planning Application that includes an ecological survey report that recommends more detailed surveys.

7.13 During the GLTA all of the trees on site were assessed to pertain to a bat roost suitability of '**None**' in accordance with Bat Conservation Trust – Bat Surveys for Professional Ecologists: Good Practice Guidelines, 4th ed. (2023) (see **Figure 7.2**).

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

Figure 7.2 – *BCT extract on 'None' suitability criteria*

7.14 Installation of overly harsh artificial lighting as part of any development that exceeds current levels may have a negative impact upon foraging / commuting bats in the landscape, subject to their presence, particularly if increased light spillage occurs in areas of that are currently free from illumination, particularly including woodland and hedgerows. A bat-sensitive lighting plan is therefore recommended in order to avoid potential impacts to bats that may use the surrounding treelines. Several options to consider have been listed below, though the reader is referred to the Bat Conservation Trust's 'Bats and Artificial Lighting at Night' guidelines (August 2023) for further information.

Appropriate luminaire specifications: Light sources, lamps, LEDs and their fittings come in a myriad of different specifications which a lighting professional can help to select. However, the following should be considered when choosing luminaires and their potential impact on Key Habitats and features:

- All luminaires should lack UV elements when manufactured. Metal halide, compact fluorescent sources should not be used.
- LED luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.
- A warm white light source (2700Kelvin or lower) should be adopted to reduce blue light component.
- Light sources should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012).
- Internal luminaires can be recessed (as opposed to using a pendant fitting) where installed in proximity to windows to reduce glare and light spill.
- Waymarking inground markers (low output with cowls or similar to minimise upward light spill) to delineate path edges.
- Column heights should be carefully considered to minimise light spill and glare visibility. This should be balanced with the potential for increased numbers of columns and upward light reflectance as with bollards.
- Only luminaires with a negligible or zero Upward Light Ratio, and with good optical control, should be considered - See ILP GN01.
- Luminaires should always be mounted horizontally, with no light output above 90° and/or no upward tilt.
- Where appropriate, external security lighting should be set on motion-sensors and set to as short a possible a timer as the risk assessment will allow. For most general residential purposes, a 1 or 2 minute timer is likely to be appropriate.
- Use of a Central Management System (CMS) with additional web-enabled devices to light on demand.
- Use of motion sensors for local authority street lighting may not be feasible unless the authority has the potential for smart metering through a CMS.
- The use of bollard or low-level downward-directional luminaires is strongly discouraged. This is due to a considerable range of issues, such as unacceptable glare, poor illumination efficiency, unacceptable upward light output, increased upward light scatter from surfaces and poor facial recognition which makes them unsuitable for most sites. Therefore, they should only be considered in specific cases where the lighting professional and project manager are able to resolve these issues.
- Only if all other options have been explored, accessories such as baffles, hoods or louvres can be used to reduce light spill and direct it only to where it is needed. However, due to the lensing

and fine cut-off control of the beam inherent in modern LED luminaires, the effect of cowls and baffles is often far less than anticipated and so should not be relied upon solely.

Birds

7.15 No impacts are applicable in relation to any Sch.1 (WCA) specially protected bird species such as barn owl, and no further surveys or recommendations are necessary in relation to specially protected birds, with no viability of nesting within the site boundary.

7.16 Regarding wider breeding bird species, there are a range of viable nesting platforms within the trees, woodland and hedgerows onsite, which could provide suitable nesting locations within the nesting bird season of March – August, inclusive.

NB: *All wild birds (with only minor exceptions) and their nests whilst being built or containing eggs or dependant young are protected from destruction, damage and disturbance under the Wildlife & Countryside Act 1981* (*as amended*)*. It is a punishable offence to interfere in any way with an active nest.*

7.17 Any works impacting upon the vegetation should therefore be carried out outside of the breeding bird season, typically March – September inclusive. For works within the breeding bird season, any areas that can support nesting birds should be checked by a professional Ecologist for nesting birds within 48 hours or less prior to works commencing.

Point 3.24 of the British Standards Publication 42020:2013 defines a professional ecologist as: "*a person who has, through relevant education, training or experience, gained recognised qualifications and expertise in the field of ecology and environmental management.*"

7.18 Where / if active nests are / have been located by the Ecologist, then any works which may affect them would have to be delayed until the young have fledged and the nest has been abandoned naturally, this can be aided, for example, via implementation of appropriate buffer zone(s) around the nest site (typically 5 – 10 metres) in which no disturbance is permitted until the nest is no longer in use. This would have to be coordinated through the expert judgement of the professional ecologist and species pending.

Other terrestrial mammals

<u>Badger & hedgehog</u>

- Stock piling of spoil material MUST be left un-compacted and not allowed to grass over, as if grassed over and compacted, terrestrial mammals may be encouraged to excavate new areas for refuge.
- Fires must not be used as a means of the disposing of waste materials.
- Any trenches or excavations must either be covered at the end of each working day, or a low angle (no more than 45°) sloping board of approximately 300mm width should be provisioned within any uncovered excavations to provide a means of escape for any terrestrial mammals.
- Any temporarily exposed open pipe system MUST be capped in such a way as to prevent badgers gaining access, as may happen when contractors are off site.
- In the event an underground void / potential sett entrance is exposed during the works, work must cease immediately; and an Ecologist must be contacted to determine if the opening forms part of a previously undiscovered tunnel network of a badger sett. If this cannot be ruled out, works will cease, and Natural England consulted for further advice.

Herpetofauna

7.21 Regarding great crested newt (GCN), the results of both the desktop and field study suggest that impacts to this group from the development can be conclusively ruled out and there are no further recommendations in relation to GCN.

Wider herpetofauna

7.22 The presence of generalist amphibians, however, is considered possible; to prevent impacting upon local populations of common frog and common toad it is recommended that such species are included within the RAMs recommended for hedgehogs previous.

7.23 Should any frogs or toads be encountered within the works area, they should be handled with wet gloves to prevent impact / injury and moved to an area of like for like habitat outside of the works area away from potential harm. The applicant and all contractors would be aware that if at any stage newts are encountered during works, or at any other stage of the programme of works, such works would be required to immediately cease and the Ecologist / ECoW would be made aware as to provide further guidance, if an Ecologist is not already present.

7.24 The applicant should be aware that, where it is discovered that great crested newts would be impacted by the proposals, a development licence (options include District level licence, traditional development mitigation licence, low impact class licence or other) informed by survey data and a suitable mitigation strategy may be required to legally proceed with the works. In some cases, a licence may not be necessary where risks can be avoided, minimised or mitigated for through reasonable avoidance measures (RAMs), if the consultant Ecologist, on the basis of survey information and specialist knowledge of the species concerned, considers that on balance the proposed activity is reasonably unlikely to result in an offence being committed.

7.25 The results of the desktop and field study suggest that impacts to reptiles from the development can be conclusively ruled out.

Invertebrates

7.26 The site is not considered to be locally distinct for this species group and no specific intervention measures apply. Enhancement options have been presented in **Appendix III**.

8.0 Biodiversity Statement

8.1 Based on the information gathered during the diurnal assessment and provided to the author, The Rose and Crown Public House is likely **exempt** from the Biodiversity Gain Planning Condition; the site meets the de minimis exemption, as the development does not impact on any priority habitats, and less than 25 m^2 of onsite habitats with a biodiversity value greater than zero will be affected. It is understood that the proposals will be contained within the current areas of hardstanding.

8.2 The site is host to the following biodiversity value:

- Habitat: **1.54**
- Hedgerow: **0.22**
- Watercourse: **0.00**

8.3 This Section should be read in conjunction with the hard copy of the Statutory Biodiversity Metric tool – see external Appendix.

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Appendix I: Site Photographs

Plate 1 – *The Rose and Crown as seen from the north-east*

Plate 2 – *Eastern aspect of the building*

Plate 3 – *Western elevation of the building*

Plate 4 – *Character of Loft A*

Plate 5 – *Character of Loft B*

Plate 6 – *Bitumen lining within loft spaces*

Plate 7 – *Enclosed nature of Loft C*

Plate 8 – *Gaps along gable verges*

Plate 9 – *Uneven nature of roof tiles*

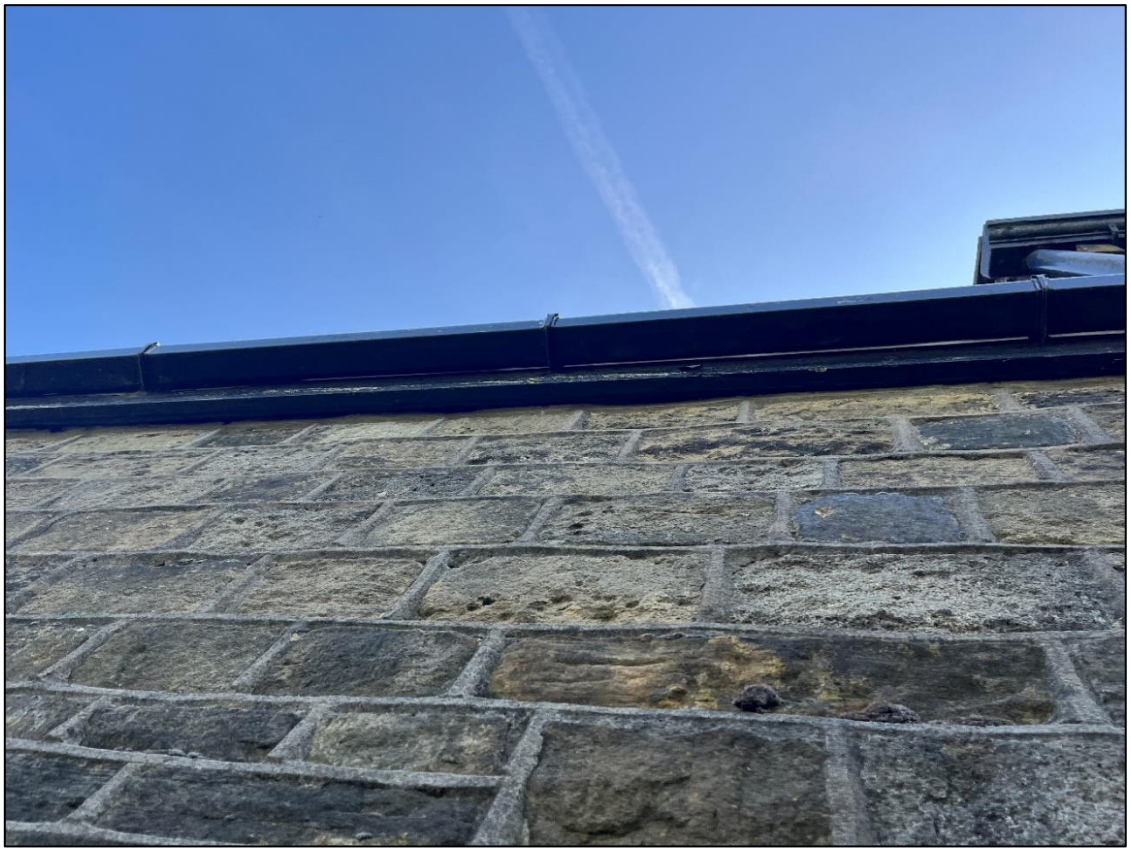


Plate 10 – *Gaps beneath fascia*

Plate 11 – *Gaps at open eaves*

Plate 12 – *Woodland parcel onsite*

Plate 13 – *Modified grassland, with unmown edges*

Plate 14 – *Disjointed hawthorn hedgerow*

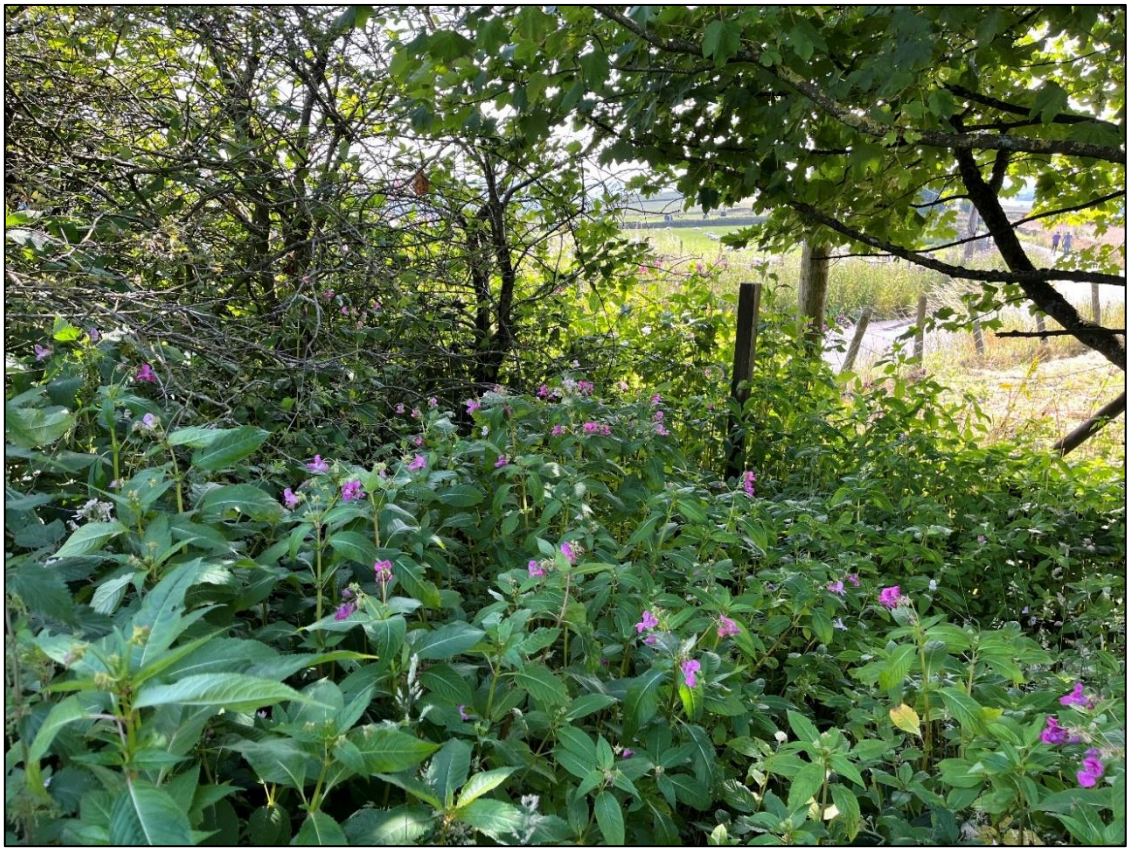


Plate 15 – *Invasive Himalayan balsam*

Plate 16 – *Small/medium sycamore trees at east of site*

Plate 17 – *Vegetated garden area, with medium sycamore trees and wall cotoneaster to right*

Plate 18 – *South of site*

Plate 19 – *Centre of site with mown modified grassland and hardstanding*

Plate 20 – *Himalayan balsam in woodland understorey*

Appendix II: Condition Assessment Sheets

Condition Assessment Score – Grassland (Low)

Condition Assessment Criteria		g4
A	There are 6-8 vascular plant species per m^2 present, including at least 2 forbs. **Note - this criterion is essential for achieving Moderate or Good condition.** Where the vascular plant species present are characteristic of medium, high or very high distinctiveness grassland, or there are 9 or more of these characteristic species per m^2 (excluding those listed in Footnote 1), please review the full UKHab description to assess whether the grassland should instead be classified as a higher distinctiveness grassland. Where a grassland is classed as medium, high, or very high distinctiveness, please use the relevant condition sheet.	**N**
B	Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for vertebrates and invertebrates to live and breed.	**Y**
C	Any scrub present accounts for less than 20% of the total grassland area. (Some scattered scrub such as bramble *Rubus fruticosus* agg. may be present). Note - patches of scrub with continuous (more than 90%) cover should be classified as the relevant scrub habitat type.	**Y**
D	Physical damage is evident in less than 5% of total grassland area. Examples of physical damage include excessive poaching, damage from machinery use or storage, erosion caused by high levels of access, or any other damaging management activities.	**Y**
E	Cover of bare ground is between 1% and 10%, including localised areas (for example, a concentration of rabbit warrens).	**N**
F	Cover of bracken *Pteridium aquilinum* is less than 20%.	**Y**
G	There is an absence of invasive non-native plant species (as listed on Schedule 9 of WCA).	**N**
	Total Score	**4**

Condition Assessment Result	Condition Assessment Score
Passes 6 or 7 criteria including passing essential criterion A	Good
Passes 4 or 5 criteria including passing essential criterion A	Moderate
Passes 3 or fewer criteria; OR Passes 4 - 6 criteria (excluding criterion A)	Poor

Condition Assessment Score – Woodland

Condition Assessment Criteria					w1g
Indicator		**Good (3 points)**	**Moderate (2 points)**	**Poor (1 point)**	
A	**Age distribution of trees**	Three age classes present	Two age classes present	One age class present	1
B	**Wild, domestic and feral herbivore damage**	No significant browsing damage evident in woodland	Evidence of significant browsing pressure is present in 40% or less of whole woodland	Evidence of significant browsing pressure is present in 40% or more of whole woodland	3
C	**Invasive plant species**	No invasive species present in woodland	Rhododendron or laurel not present, other invasive species < 10% cover	Rhododendron or laurel present, or other invasive species > 10% cover	1
D	**Number of native tree species**	Five or more native tree or shrub species found across woodland parcel	Three to four native tree or shrub species found across woodland parcel	None to two native tree or shrub species across woodland parcel	2
E	**Cover of native tree and shrub species**	> 80% of canopy trees and >80% of understory shrubs are native	50-80% of canopy trees and 50-80% of understory shrubs are native	< 50% of canopy trees and <50% of understory shrubs are native	3
F	**Open space within woodland**	10 – 20% of woodland has areas of temporary open space, unless woodland is <10ha in which case lower threshold of 10% does not apply	21- 40% of woodland has areas of temporary open space	More than 40% of woodland has areas of temporary open space	2
G	**Woodland regeneration**	All three classes present in woodland; trees 4-7cm dbh, saplings and seedlings or advanced coppice regrowth	One or two classes only present in woodland	No classes or coppice regrowth present in woodland	1
H	**Tree health**	Tree mortality less than 10%, no pests or diseases and no crown dieback	11% to 25% mortality and/or crown dieback or low risk pest or disease present	Greater than 25% tree mortality and or any high-risk pest or disease present	3
I	**Vegetation and ground flora**	Ancient woodland flora indicators present	Recognisable NVC plant community present	No recognisable NVC community	1
J	**Woodland vertical structure**	Three or more storeys across all survey plots or a complex woodland	Two storeys across all survey plots	One or less storey across all survey plots	1
K	**Veteran trees**	Two or more veteran trees per hectare	One veteran tree per hectare	No veteran trees present in woodland	1

Condition Assessment Criteria					w1g
Indicator		**Good (3 points)**	**Moderate (2 points)**	**Poor (1 point)**	
L	**Amount of deadwood**	50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	Between 25% and 50% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	Less than 25% of all survey plots within the woodland parcel have standing deadwood, large dead branches/ stems and stumps	1
M	**Woodland disturbance**	No nutrient enrichment or damaged ground evident	Less than 1 hectare in total of nutrient enrichment across woodland area and/or less than 20% of woodland area has damaged ground	More than 1 hectare of nutrient enrichment and/or more than 20% of woodland area has damaged ground	2
				Total Score	**22**

Condition Assessment Result	Condition Assessment Score	
Total score >32 (33 to 39)	Good	
Total score 26 to 32	Moderate	
Total score <26 (13 to 25)	Poor	**Y**

Condition Assessment Score – Individual Trees (Small)

Condition Assessment Criteria		Criterion passed (Y/N)
A	The tree is a native species (or at least 70% within the block are native species).	**Y**
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	**Y**
C	The tree is mature (or more than 50% within the block are mature).	**N**
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	**Y**
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	**N**
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	**Y**
	Total Score	**4**

Condition Assessment Result	Condition Assessment Score
Passes 5 or 6 criteria	Good
Passes 3 or 4 criteria	Moderate
Passes 2 or fewer criteria	Poor

Condition Assessment Score – Individual Trees (Medium)

Condition Assessment Criteria		Criterion passed (Y/N)
A	The tree is a native species (or at least 70% within the block are native species).	**Y**
B	The tree canopy is predominantly continuous, with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide (individual trees automatically pass this criterion).	**Y**
C	The tree is mature (or more than 50% within the block are mature).	**Y**
D	There is little or no evidence of an adverse impact on tree health by human activities (such as vandalism, herbicide or detrimental agricultural activity). And there is no current regular pruning regime, so the trees retain >75% of expected canopy for their age range and height.	**Y**
E	Natural ecological niches for vertebrates and invertebrates are present, such as presence of deadwood, cavities, ivy or loose bark.	**Y**
F	More than 20% of the tree canopy area is oversailing vegetation beneath.	**Y**
	Total Score	**6**

Condition Assessment Result	Condition Assessment Score
Passes 5 or 6 criteria	Good
Passes 3 or 4 criteria	Moderate
Passes 2 or fewer criteria	Poor

Condition Assessment Score – Hedgerows

Functional Group		Criteria	Description	h2a6
A1	Height	>1.5 m average along length	The average height of woody growth estimated from base of stem to the top of the shoots, excluding any bank beneath the hedgerow, any gaps or isolated trees. Newly laid or coppiced hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice). A newly planted hedgerow does not pass this criterion (unless it is >1.5 m height).	**Y**
A2	Width	>1.5 m average along length	The average width of woody growth estimated at the widest point of the canopy, excluding gaps and isolated trees. Outgrowths (such as blackthorn *Prunus spinosa* suckers) are only included in the width estimate when they are >0.5 m in height. Laid, coppiced, cut and newly planted hedgerows are indicative of good management and pass this criterion for up to a maximum of four years (if undertaken according to good practice).	**Y**
B1	Gap - hedge base	Gap between ground and base of canopy <0.5 m for >90% of length	This is the vertical 'gappiness' of the woody component of the hedgerow, and its distance from the ground to the lowest leafy growth. Certain exceptions to this criterion are acceptable (see page 65 of the Hedgerow Survey Handbook).	**N**
B2	Gap - hedge canopy continuity	Gaps make up <10% of total length; and No canopy gaps >5m	This is the horizontal 'gappiness' of the woody component of the hedgerow. Gaps are complete breaks in the woody canopy (no matter how small). Access points and gates contribute to the overall 'gappiness' but are not subject to the >5 m criterion (as this is the typical size of a gate).	**N**
C1	Undisturbed ground and perennial vegetation	>1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length: · Measured from outer edge of hedgerow; and · Is present on one side of the hedgerow (at least).	This is the level of disturbance (excluding wildlife disturbance) at the base of the hedgerow. Undisturbed ground is present for at least 90% of the hedgerow length, greater than 1 m in width and must be present along at least one side of the hedgerow. This criterion recognises the value of the hedgerow base as a boundary habitat with the capacity to support a wide range of species. Cultivation, heavily trodden footpaths, poached ground etc. can limit available habitat niches.	**Y**

Functional Group		Criteria	Description	h2a6
C2	Nutrient-enriched perennial vegetation	Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of undisturbed ground.	The indicator species used are nettles *Urtica* spp., cleavers *Galium aparine* and docks *Rumex* spp. Their presence, either singly or together, does not exceed the 20% cover threshold.	**N**
D1	Invasive and neophyte species	>90% of the hedgerow and undisturbed ground is free of invasive non-native plant species (including those listed on Schedule 9 of WCA[3]) and recently introduced species.	Recently introduced species refer to plants that have naturalised in the UK since AD 1500 (neophytes). Archaeophytes count as natives. For information on archaeophytes and neophytes see the JNCC website[4], as well as the BSBI website[5] where the 'Online Atlas of the British and Irish Flora'[6] contains an up-to-date list of the status of species. For information on invasive non-native species see the GB Non-Native Secretariat website[7].	**N**
D2	Current damage	>90% of the hedgerow or undisturbed ground is free of damage caused by human activities.	This criterion addresses damaging activities that may have led to or lead to deterioration in other attributes. This could include evidence of pollution, piles of manure or rubble, or inappropriate management practices (for example, excessive hedgerow cutting).	**N**

Condition Assessment Result	Condition Assessment Score
No more than 2 failures in total; **AND** No more than 1 failure in any functional group.	Good
No more than 5 failures in total; **AND** Does not fail both attributes in more than one functional group (for example, fails attributes A1, A2, B1, C2 and E1 = Moderate condition).	Moderate
Fails a total of more than 5 attributes; **OR** Fails both attributes in more than one functional group (for example, fails attributes A1, A2, B1 and B2 = Poor condition).	Poor

Appendix III: Botanical Species List

Species nomenclature follows Stace, C (2019) – definitive English names; scientific names for given flora are presented below.

Any invasive non-native species are denoted by the acronym (**INNS**).

Taxon	Common Name	Scientific Name
Anthophyta	Annual meadow-grass	*Poa annua*
	Ash	*Fraxinus excelsior*
	Birch sp.	*Betula sp.*
	Broad-leaved dock	*Rumex obtusifolius*
	Butterfly-bush	*Buddleja davidii*
	Cherry laurel	*Prunus laurocerasus*
	Cleavers	*Galium aparine*
	Cock's-foot	*Dactylis glomerata*
	Common bird's-foot trefoil	*Lotus corniculatus*
	Common nettle	*Urtica dioica*
	Common ragwort	*Jacobaea vulgaris*
	Creeping bent	*Agrostis stolonifera*
	Creeping buttercup	*Ranunculus repens*
	Creeping thistle	*Cirsium arvense*
	Dandelion	*Taraxacum officinalle* **agg.**
	False oat-grass	*Arrhenatherum elatius*
	Garlic mustard	*Alliaria petiolata*
	Goat willow	*Salix caprea*
	Greater plantain	*Plantago major*
	Hawthorn	*Crataegus monogyna*
	Herb-Robert	*Geranium robertianum*
	Himalayan balsam **INNS**	*Impatiens glandulifera*
	Honeysuckle	*Lonicera periclymenum*
	Meadow buttercup	*Ranunculus acris*
	Meadow vetchling	*Lathyrus pratensis*
	Pedunculate oak	*Quercus robur*
	Perennial rye-grass	*Lolium perenne*
	Red fescue	*Festuca rubra* **agg.**
	Ribwort plantain	*Plantago lanceolata*
	Rose sp.	*Rosa sp.*
	Rosebay willowherb	*Chamaenerion angustifolium*
	Rowan	*Sorbus aucuparia*
	Snowberry	*Symphoricarpos albus*
	Spear thistle	*Cirsium vulgare*
	Sycamore	*Acer pseudoplatanus*
	Wall cotoneaster **INNS**	*Cotoneaster horizontalis*
	White clover	*Trifolium repens*
	Willowherb sp.	*Epilobium sp.*
	Yorkshire-fog	*Holcus lanatus*

Taxon	Common Name	Scientific Name
Pinophyta	Cypress sp.	*Cupressus sp.*

Appendix IV: Biodiversity Enhancement: General Recommendations

Breeding Birds – House Sparrow

The sparrow terrace has been designed to help redress the balance of falling house sparrow numbers. The current UK population is now half of what it previously was in 1980 and this is widely attributed to habitat destruction and lack of suitable nesting spaces. House sparrows are social birds and like to nest in company, therefore, this terrace provides ideal nesting opportunities for three families. The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for all types of buildings.

Breeding Birds – Other

This traditional design has proved to be highly effective in attracting robins, as well as other small species such as black redstart, spotted flycatcher and wren. It is designed to be installed on the walls of houses, barns, garden sheds or other buildings and should be hung so that the entrance is to one side (at an angle of 90° to the wall). The front panel can be easily removed for cleaning.

This type of box should not be made conspicuous on a tree or bush because small predators can enter through the unprotected opening. By hanging on a wall, predators won't be able to reach the box. Alternatively hide the box in Ivy, Honeysuckle or other climbing plants.

Hedgehog Home

Exterior quality 12mm resin bonded ply. The box remains untreated on the inside. Best situated in a quiet corner of the garden, and covered with leaves and other garden debris. Removable lid for cleaning purposes and reinforced corners, manufactured with surface sunk nails to resist rusting.

Nest box size: Height 22cm x Width 38cms x Length 47cm

Environmentally positive: Direct action to help hedgehog survival rates, encouraging biodiversity; FSC timber; Zero carbon footprint in use.

Amphibians – Hibernacula

Hibernacula are underground chambers that amphibians and reptiles use throughout the winter to protect themselves from the cold. Creating a hibernaculum will provide a safe space for amphibians and reptiles to hibernate over winter, as well as a spot for solitary bees to soak up the sun and for birds to relax. These habitats can be integrated into a wide variety newly created or enhanced habitats and attract herps to new areas.

You will need:

- A spade
- Logs and branches
- Rocks and bricks
- 2-3 drainpipe cut-offs or cement pipes (if using plastic drainpipes, roughen the insides with sandpaper, so that they are not too slippery for animals to climb
- Turf or meadow flower seeds (optional)

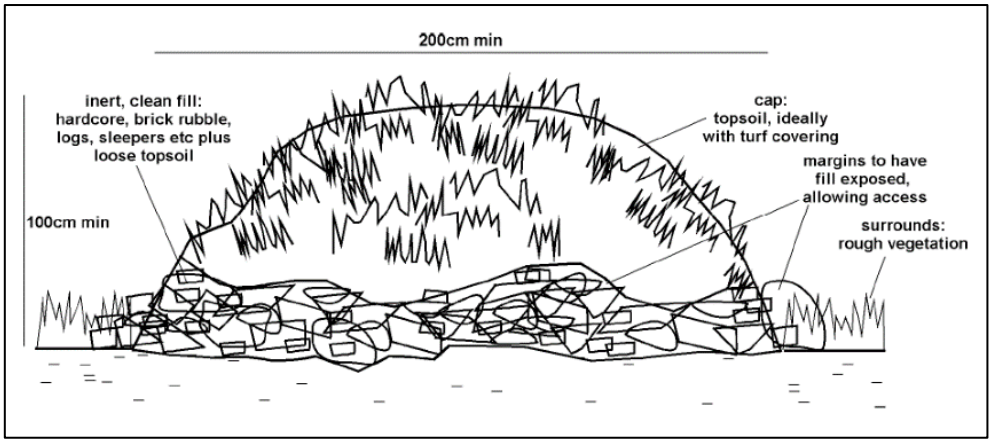
How to make your hibernaculum yourself:

- In a sunny spot, dig a hole about 50cm deep and 1.5 metres across.
- Fill with logs, branches, bricks and rocks, leaving plenty of gaps in between.
- Insert entrance tubes (drainpipes) at ground level into the hole.
- Cover the pile with soil (to about 50cm high).
- Plant meadow seeds or long grasses over the mound to create a feast for summer pollinators.

To construct a hibernaculum to Natural England standard:

- In desired areas, remove the turf from the footprint of the hibernaculum and set aside.
- On well-drained soil excavate to a depth of approximately 500 mm and set aside spoil (this is unnecessary on poorly drained soils).
- Fill the footprint or pit with core material. Materials likely to retain moisture are preferable, such as cut timber, brash and grubbed up tree roots. Other material such as inert hardcore, bricks, rocks, and building rubble may also be used. Materials that will decompose should not be placed beneath heavy components such as bricks or rocks, to reduce the risk of collapse.
- Pack the larger spaces within the core materials with wood chippings, loose topsoil or spoil.
- Cover the hibernaculum with the turves removed from the footprint.
- Take care not to create structures that might attract rodents, such as piles of rubble with many entrance holes. There has been no rigorous investigation of the optimum size of hibernacula, but larger hibernacula are probably more useful than small constructions because they contain a variety of different microhabitats and are more likely to maintain stable conditions.
- A suggested minimum size is 4.0 m long by 2.0 m wide by 1.0 m deep. 2.0 x 2.0 x 1.0 metres (length x width x height) as a minimum.

Illustrative aid for hibernaculum:



Invertebrates – Insect Hotels

Insect hotels provide a habitat for a variety of insects. Designs can be small or large enough to create a focal point in a wildlife garden and sturdy enough to last for years. Ensure hotels are made from untreated wood, which is important as insects need natural materials to thrive, and split into sections that each contain a different nesting material. There should be pine cones for ladybirds, wood slits for butterflies and moths, bamboo canes for solitary bees, and loose pieces of wood for beetles. Placement: Size against walls or fences and fix to prevent toppling. The feet keep the main body off the damp ground. You could push bricks against them to keep the bug hotel upright, which would also encourage woodlice and even frogs that enjoy cool stone conditions.

Invertebrates – Bee bricks

The Bee Brick can be used in place of a standard brick or block in construction to create habitat for solitary bees. Alternatively, it can be used as a standalone bee house in your garden or wild patch. It will provide much needed nesting space for solitary bee species such as red mason bees and leafcutter bees, both of which are non-aggressive.

Each Bee Brick contains cavities in which solitary bees can lay their eggs before sealing the entrance with mud and chewed-up vegetation. The offspring will emerge the following spring and the cycle will begin again. Each cavity goes part way into the brick, which is solid at the back. Bee Bricks should be placed in a warm sunny spot on a south-facing wall at a minimum height of 1m, with no vegetation obstructing the holes. It is highly recommended that bee-friendly plants should be located nearby so that the bees using the bricks have food, otherwise it is unlikely that the brick will be used. Available in a choice of four colours: white grey, dark grey, yellow and red.

Specification

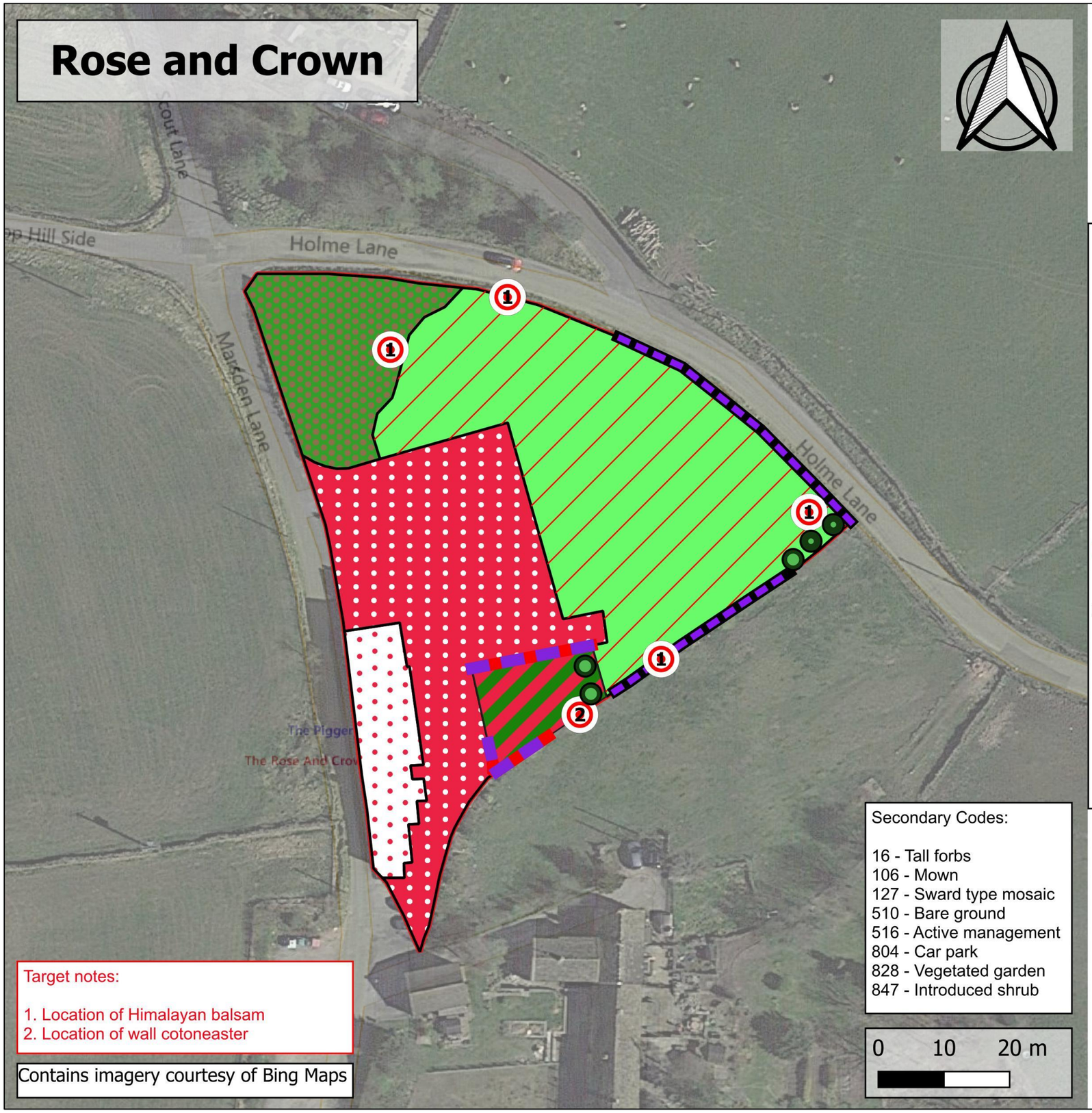
* Material: Concrete
* Dimensions: W 215mm x D 105mm x H 65mm
* Weight: 2.9kg
* Colours: White grey, yellow, dark grey and red

Native Planting and/or Landscaping

The below species have been assessed against the local soil and habitat types and are deemed suitable for the site. All plant material should comply with the minimum requirements in BS 3936-1: 1992 Specification for trees and shrubs and BS 3936-4: 2007 Specification for forest trees and BS 8545: 2014 Trees from Nursery to Independence in the Landscape. Any plant material, which in the opinion of the appointed Landscape Architect, does not meet the requirements of the Specification, or is unsuitable, or defective in any other way, will be rejected. The minimum specified sizes in the plant schedule will be strictly enforced. The contractor should replace all plants rejected at own cost. New hedgerows should be primarily comprised of blackthorn, hawthorn, hazel, and holly, whilst climbers/creepers such as hops and honeysuckle can be planted at the base of boundary features such as fences and walls, and new tree planting should include species such as pedunculate oak, wild cherry, and alder buckthorn.

	Common Name	Scientific Name	Planting Preference
Ferns	Male Fern	*Dryopteris filix-mas*	Semi-shade or shaded
	Soft Shield-fern	*Polystichum setiferum*	Semi-shade or shaded
	Maidenhair Fern	*Adiantum capillus-veneris*	Suitable for rockeries / walled gardens
	Royal Fern	*Osmunda regalis*	Full sun in moist-damp areas
Herbaceous plants	Bloody Crane's-bill	*Geranium sanguineum*	Dry soils - suitable for rockeries
	Columbine	*Aquilegia vulgaris*	Semi-shade or open areas
	English Bluebell	*Hyacinthoides non-scripta*	Moist soils in semi-shade or open areas
	Giant Bellflower	*Campanula latifolia*	Semi-shade or open areas
	Greater Knapweed	*Centaurea scabiosa*	Dry-moist soils. Suitable for borders
	Greater Woodrush	*Luzula sylvatica*	Moist soils in semi-shade or open areas
	Meadow Crane's-bill	*Geranium pratense*	Humid-moist soils. Suitable for borders
	Musk Mallow	*Malva moschata*	Dry-moist soils. Suitable for borders and rockeries
	Sea Campion	*Silene uniflora*	Dry soils - suitable for rockeries
	Stinking Hellebore	*Helleborus foetidus*	Semi-shade or open areas
Climbers	Honeysuckle	*Lonicera periclymenum*	Dry-moist soils
	Hops	*Humulus lupulus*	Dry-moist soils
	Ivy	*Hedera helix*	Dry-moist soils
	Sweet-briar	*Rosa rubiginosa*	Dry-moist soils
Woody Shrubs	Dogwood	*Cornus sanguinea*	-
	Guelder Rose	*Vibernum opulus*	-
	Hawthorn	*Crataegus monogyna*	-
	Hazel	*Corylus avellana*	-
	Holly	*Ilex aquifolium*	-
Trees	Alder Buckthorn	*Frangula alnus*	-
	Osier	*Salix viminalis*	-
	Pedunculate Oak	*Quercus robur*	-
	Purple Willow	*Salix purpurea*	-
	Rowan	*Sorbus aucuparia*	-
	Silver Birch	*Betula pendula*	-
	Wild Cherry	*Prunus avium*	-
	Wych Elm	*Ulmus glabra*	-

Appendix V: UK Habitats Map



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Specialists in Protected Species

UK Habitats Key

- g4 - Modified grassland - 16, 106, 127, 510, 516
- u1 - Built-up areas and gardens - 828, 847
- u1b5 - Buildings
- u1b6 - Other developed land - 804
- w1g - Other woodland - broadleaved
- h2b - Non-native and ornamental hedgerow
- h2a6 - Other native hedgerow
- Scattered tree - deciduous, small
- Scattered tree - deciduous, medium
- Target note
- Boundary

Survey Date: 17/07/2024
Drawn: Mr. H. Mulligan
Date Drawn: 08/08/2024
Checked & Approved: Mrs. K. Wilding
Size: A3
Scale: 1:800

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