

Preliminary Ecological Appraisal

March 2023

Land at Hollins Close

Unsworth

Bury

BL9 8AW

National Grid Reference: SD81800794



Land at Hollins Close, Unsworth, Bury, BL9 8AW
Preliminary Ecological Appraisal

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This report aims to provide general advice on ecological constraints associated with any development of the site and includes recommendations for further survey; it is not intended that this report should be submitted with a planning application for development of the site, unless supported by the results of further surveys and a detailed assessment of the effects of the proposed development.

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Executive Summary

As part of a proposed planning application at a plot of Land at Hollins Close in Unsworth, Bury, Tyrer Ecological Consultants Ltd carried out a Preliminary Ecological Appraisal (PEA) in February 2022. The PEA was commissioned by Advanced Utilities Ltd; proposals for the site are understood to involve the erection of one new dwelling with associated gardens and access from Hollins Close to the east.

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

Recommended following PEA:

- **Invasive species:** One Schedule 9 (WCA) INNS was recorded on the site; namely, wall cotoneaster (*Cotoneaster horizontalis*). 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.

To prevent incidental spread of this species during the proposed works it is recommended that a precautionary working method statement with appropriate biosecurity protocol is instated prior to commencement of site works.

- **Bats:** Whilst no trees or buildings are present within the site boundary, semi-mature trees and a hedgerow abut the site to the north and provide potential commuting, foraging, and roosting opportunities.

No further surveys are recommended; however, to prevent disturbance of flight lines or potential roost features as a result of the new development, it is recommended that a robust lighting scheme is created and adhered to, including directing new lighting away from the northern site boundary (see Section 8.9).

- **Breeding Birds:** In relation to common birds, the denser vegetation and tussocky grassland present offer birds possible nesting opportunities, particularly during the breeding bird season of March – August.

Measures to avoid or reduce the risk of disturbing breeding birds have been provided in sections 8.12-8.13, including timings or pre-works checks.

- **Other Fauna:** There is a low chance of impacts to hedgehog (*Erinaceus europaeus*) and common amphibians such as common frog (*Rana temporaria*), subject to their presence in the area.

Measures to reduce risk of impact to these species' have been provided within section 8.15-8.17.

Biodiversity enhancement measures to help the proposed development achieve a net improvement for biodiversity in line with local and national planning policy have been provided in **Appendix III**; these include favourable planting/landscaping and provision of wildlife boxes.

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1.0 Introduction & Scope

- 1.1 As part of a proposed planning application at a plot of Land at Hollins Close in Unsworth, Bury, Tyrer Ecological Consultants Ltd carried out a Preliminary Ecological Appraisal (PEA) in February 2022.
- 1.2 The PEA was commissioned by Advanced Utilities Ltd; proposals for the site are understood to involve the erection of one new dwelling with associated gardens and access from Hollins Close to the east (see **Figure 1.1** for a proposed site plan).

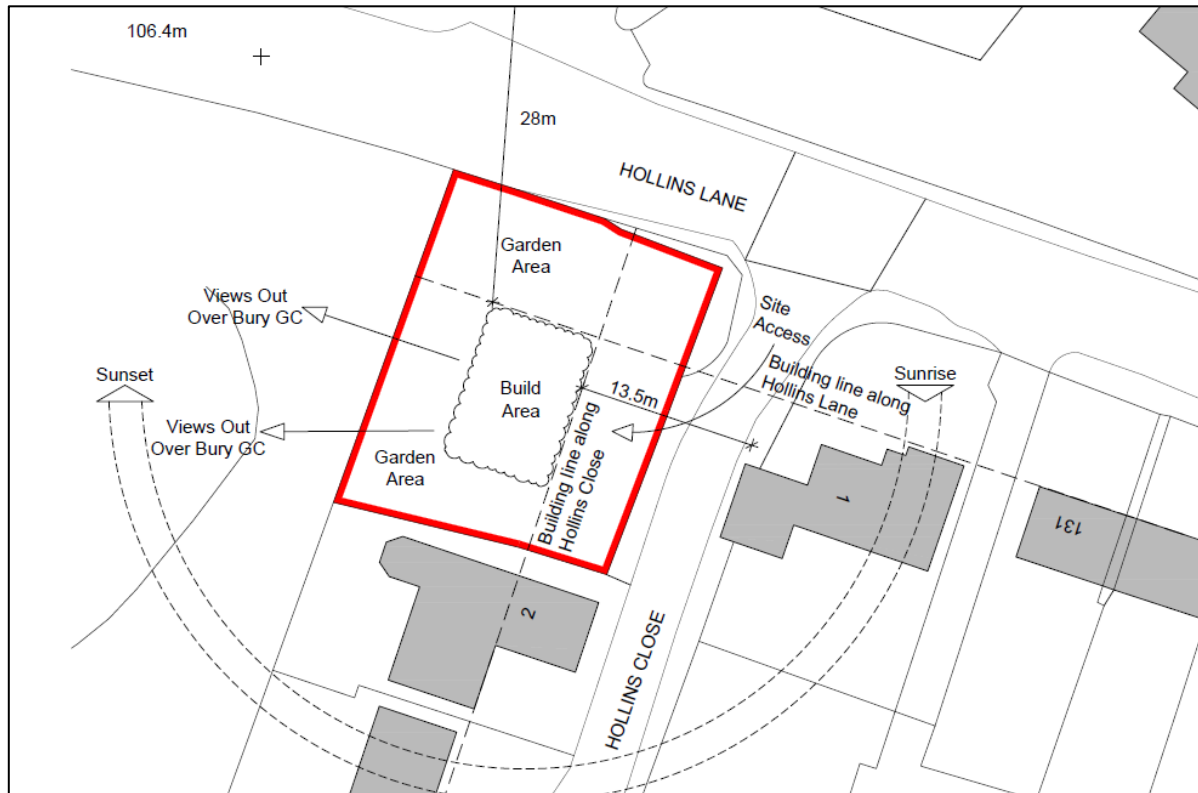


Figure 1.1 – The proposed site plan with red line boundary (©Evolve Architectural Design)

- 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 1.1 (2020) 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 additional survey requirements,
- Aim to achieve no 'net loss' of habitat biodiversity units,
- Identify enhancement opportunities for biodiversity in line with national and local planning policy following 'Biodiversity Net Gain: Good practice principles for development' (CIEEM et al., 2019),
- 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 1.1 (2020).

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 on 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 Local Planning Authorities (LPA's) 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 (amendment) (2019) (EU Exit),
- Countryside Rights of Way (CRoW) Act (2000),
- Natural Environment and Rural Communities (NERC) Act (2006),
- Protection of Badgers Act (1992),
- The Hedgerow Regulations (1997),
- Town and Country Planning Act (1990),
- UK Habitat Classification – Habitat Definitions Version 1.1 (2020),
- 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 Legislation	Level of Protection
Badger	Protection of Badgers Act (1992), Wildlife and Countryside Act (1981) (as amended)	<u>Illegal to:</u> 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 (2019) (EU Exit) 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.
Birds (Breeding)	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.

Species Group/Species	Relevant Legislature	Level of Protection
Great Crested Newt (GCN)	CRoW Act (2000) Conservation of Habitats and Species Regulations (2019) (EU Exit) 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)	Species listed within Schedule 9 as invasive, including Japanese knotweed (<i>Reynoutria japonica</i>) and Himalayan balsam (<i>Impatiens glandulifera</i>), for example, carry notoriety regarding development. The Act makes 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 (2019) (EU Exit) - SL/SS Wildlife and Countryside Act (1981) (as amended) - SL/SS 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 (SL) and smooth snake (SS) are species of principal importance however with greater protection(s).

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 180 of the National Policy Planning Framework (as revised in July 2021) 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 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 This is supported by Policy EN6 “Conservation of the natural environment” of the adopted Bury Unitary Development Plan, which states:

“The Council will retain, protect and enhance the natural environment of the Borough, particularly in relation to areas of ecological, wildlife and geological importance.”

Policy EN6/3 “Features of Ecological Value” goes on to state:

“The effect of any land use changes on existing features of ecological or wildlife value will be taken into account when assessing development proposals. Any proposals should seek to retain such features and incorporate them into the development.”

Whilst Policy EN6/4 “Wildlife Links and Corridors” states:

“The Council will seek to consolidate and, where appropriate, strengthen wildlife links and corridors, and will not permit development which would adversely affect identified areas. In particular, the Council will seek to ensure that new development within or adjacent to identified links or corridors contributes to their effectiveness through the design, landscaping and siting of development proposals and mitigation works, where appropriate.”

3.0 Priority Habitats & Species

National Context

- 3.1 In the United Kingdom, legal protection and otherwise legislative recognition is afforded to particular habitats and species. Certain habitats and species are considered to hold nature conservation importance and are thus protected, due to factors such as their ecological functionality, connectivity, rarity, their vulnerability, environmental importance, or declining population/status. They are referred to as priority habitats and priority species.
- 3.2 The UK Biodiversity Action Plan (UKBAP) provided a statutory basis for lists of habitats and species of national conservation importance – now transposed under Section 41 (s.41) of the Natural Environment Rural Communities Act 2006 (NERC Act).
- 3.3 The following Section 41: Habitats of Principal Importance in England and Section 41: Species of Principal Importance in England are considered potentially relevant to the appraisal though the list is not extensive (see **Table 3.1**):

Table 3.1 – Potentially relevant Section 41: Habitats and Species of Principal Importance

Habitats:		
Broad Habitat		Specific Habitat
Boundary and Linear Features		Hedgerows
Species:		
Taxon group	Scientific Name	Common Name
Birds	<i>Carduelis cannabina</i>	Linnet
	<i>Passer domesticus</i>	House sparrow
	<i>Passer montanus</i>	Tree sparrow
	<i>Pyrrhula pyrrhula</i>	Bullfinch
	<i>Sturnus vulgaris</i>	Starling
	<i>Turdus philomelos</i>	Song thrush
	<i>Fumaria purpurea</i>	Purple-ramping fumitory
Herpetofauna	<i>Anguis fragilis</i>	Slow-worm
	<i>Bufo bufo</i>	Common toad
Mammals	<i>Nyctalus noctula</i>	Noctule
	<i>Plecotus auritus</i>	Brown long-eared
	<i>Erinaceus europaeus</i>	Hedgehog
	<i>Lepus europaeus</i>	Brown Hare

Regional Context

- 3.4 Local Biodiversity Action Plans (LBAP's) are a way of encouraging people to work together to deliver a program of continuing action for biodiversity at a local level. LBAPs also embrace the idea of 'local distinctiveness'; habitats and species which are not considered UK conservation priorities can be catered for by LBAPs if they are of particular local significance.
- 3.5 LBAP's set out practical steps that aim to help protect, enhance and improve biodiversity where possible, as well as promote biodiversity at a local level.
- 3.6 The Greater Manchester Biodiversity Action Plan (GMBAP) lists key local species considered to be rare or declining in the area; some may be of national concern (and as such have been mentioned in **Table 3.1** above) while others are significant at local level. In addition to the Section 41 Habitats & Species of Principal Importance listed above, the following locally significant habitats and species plans are considered of potential relevance to the survey (see **Table 3.2**):

Table 3.2 – LancBAP Habitats and Species

Habitats:		
Broad Habitat		Specific Habitat
Arable Farmland		Hedges
Broadleaved and Mixed Woodland		Plantation Broadleaved Woodland
Species:		
Taxon group	Scientific Name	Common Name
Birds	-	Farmland Birds
Botanical species	<i>Populus nigra subsp. betulifolia</i>	Native Black Poplar

4.0 Methodology

- 4.1 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

- 4.2 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.
- 4.3 Historic satellite imagery was reviewed using sources such as Google Earth (© 2021/22) 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.
- 4.4 A commercial data request to the Local Environment Records Centre (LERC) serving the area has not been sourced during this preliminary appraisal assessment and is justified through the application of the following recent guidance:
- 4.5 1) The Guidelines for Accessing, Using and Sharing Biodiversity Data in the UK (CIEEM, 2020) states: “It is generally expected that a desk study, including a data search, will be a key part of the ecological surveys or reports produced to inform a planning application. **Freely available web-based sources of data and contextual information should always be used**; in some cases, it may be acceptable to not undertake a data search with the LERC or other relevant NSS or local interest groups, for example:
- ii) 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. It can be very difficult to demonstrate that a data search would not have provided relevant information without obtaining and reviewing those data.*
 - iii) In some cases for Preliminary Roost Assessments of buildings in low impact / small-scale scenarios, such as an extension to a residential property, loft conversions (full or partial), installation of Velux/dormer windows, single modern agricultural or similar building conversion or demolition; however, it should not be assumed that data searches are never required for such scenarios and this must be judged on a case by case basis and justified accordingly.*
- 2) The Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017) states: “*Very occasionally it might be possible to carry out a robust PEA without obtaining LERC/NBDC/CEDaR data; this will usually only apply to **low impact or small-scale projects** (e.g. by virtue of size, extent, duration of works, magnitude and locality), and should be determined on a case-by-case basis.*”
- 4.6 Given the nature of the proposed development, including its small scale and low-impact nature, and the outcomes of the appraisal, it has been deemed unnecessary to conduct a data search for protected species or designated sites in the vicinity. Species/habitat

information relevant to the application site and its immediate environs was obtained at the time of the survey from habitat information.

Field Survey

- 4.7 A daytime preliminary ecological appraisal was conducted on the 27th February 2022 in dry conditions (7°C), average wind 2/12 (Beaufort scale), average 20% cloud cover, by the following surveyor (see **Table 4.1**).

Table 4.1 – Site Surveyor credentials

Name	Description of most relevant credentials
Mr J. Pescod MRes (Senior Ecologist); Qualifying CIEEM	Five years of professional consultancy experience & training; accredited agent on the (Class 2) Natural England bat licence Mrs. K. Wilding (CLS-14227) and holder a Natural England Great Crested Newt: CL08 Class 1 Licence (2022-10653-CL08-GCN).

Floristic assessment

- 4.8 The survey followed the UK Habitat Classification Version 1.1 (Butcher, et.al., 2020) methodology, 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).
- 4.9 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 (amendment) (EU exit) Regulations (2019). Species nomenclature follows Stace, C. (2019) – definitive English names.
- 4.10 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-Country – Local*). For botanical species list compiled in full, see **Appendix II**.
- 4.11 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).

Faunal assessment

- 4.12 During site walkover, the identification 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 3.0**. The walkover also aimed to identify any ephemeral pools or unmapped waterbodies.

Bats

- 4.13 The site was assessed for bats; trees (where present) would be inspected for places that may be of value to bats and to determine if evidence of use was present; this typically involves a search for potential roost features along with an investigation of those features using a high-powered torch or close focus binoculars. Potential roost features 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 Ivy with stem diameters in excess of 50mm or bat/bird boxes.
- 4.14 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, 3rd ed. (2016) (see **Figure 4.1**):

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.		
Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions ^a 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 or hibernation ^b). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential. ^c	Habitat that could be used by small numbers of commuting bats 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 or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions ^a and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are 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 commuting 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 or tree 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 ^a and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats 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 For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.

^b 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.*, 2015). 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 large buildings in highly urbanised environments.

^c This system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI, 2015).

Figure 4.1 – Bat Conservation Trust (BCT) guidelines extract

- 4.15 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, transition).

Birds

- 4.16 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 the ground. 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:
- 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.
- 4.17 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

- 4.18 The walkover included an assessment for the presence / suitability of badger (*Meles meles*), which includes signs of activity such as prints, hairs, digging, setts, 'runs' leading to and from a sett and the existence of latrines or 'snuffle' holes where badgers have foraged in the ground. Any signs indicative of the use of the site by European hedgehogs (*Erinaceus europaeus*) and brown hare (*Lepus europaeus*), or habitats of value to them, were also recorded.

Great Crested Newt (GCN)

- 4.19 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 Newts (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.*

- 4.20 Following current best practice considering the national 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.
- 4.21 Based on the desk study, using Google Earth Pro 2021/22, MAGiC Maps 2023, and Ordnance Survey (OS) map data, no standing water bodies were identified within the red line boundary of the site or within the 250 metre radial buffer.

Reptiles

- 4.22 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 lizards (*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 similar habitats to Common Lizards, and are often found in rank grassland, gardens and derelict land under refugia,
- Grass snakes (*Natrix helvetica*) have broadly similar requirements to common lizards but with a greater reliance on ponds and wetlands, where they prey on amphibians.

- 4.23 In assessment of a site for reptiles several important habitat characteristics are considered, outlined in **Table 4.2** below, as derived from the Reptile Habitat Management Handbook (Edgar, 2010).

Table 4.2 – 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

- 4.24 The application 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.
- 4.25 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.
- 4.26 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 Mr. Pescod.

5.0 Limitations

- 5.1 This report does not contain a comprehensive list entailing the totality of botanical taxa on site. Species listed within **Appendix II** are recorded from a combination of the seasonal timing that the survey took place and botanical identification skills of the surveyor. Many plant species are only evident at certain times of the year; consequently, it is possible that some plant species may have gone undetected.
- 5.2 The optimal time of the year to carry out a preliminary ecological appraisal / UK Habitats survey is April to October; therefore, the survey was undertaken outside of the optimal period for carrying out this type of survey. It is considered, however, that sufficient information was obtained during the diurnal appraisal on which to base conclusive ecological recommendations.
- 5.3 The survey took place outside of the typical bat and bird 'active / breeding' seasons; the probability of encountering direct evidence or field signs of either of these species is therefore decreased. Signs of use for both of these species are readily visible all year round however, and, in the case of bats, roost potential and suitability of potential roost features can be adjudged as decisively as within the active season of bats, saving time and unnecessary delay to applicants, thus frequently the assessment can be as conclusive as if it was carried out in the active season. Timing is, therefore, not considered a constraint in this instance.
- 5.4 In considering all possible survey constraints, no significant limitations were experienced that might adversely influence the results, conclusions, and recommendations of this report.

6.0 Desk Study Results

- 6.1 The application site can be broadly described as an area of disused grassland at the junction of Hollins Close to the east and Hollins Lane to the north. approximately 10.0 kilometres north of Manchester city centre (see **Figure 6.1**).



Figure 6.1 – Location of the application site (red boundary) within the landscape (© Google Earth Pro 2021)

- 6.2 The site, as revealed by historic aerial imagery, has previously functioned as part of the adjacent Bury Golf Course to the west. The immediate habitat is dominated to the south-west by this golf course, which features stretches of heavily mown grassland interspersed with areas of tussocky sward, and deciduous woodland and lowland fen priority habitat; the Parr Brook also runs east to west through the course. To the north, south, and east, land use is residential with modern housing developments comprised of predominantly detached dwellings with associated modest gardens and access roads; a small cemetery is also present amongst the housing to the east. To the north and north-west, encapsulating the development to the north, is the Hollins Vale Local Nature Reserve (LNR).
- 6.3 The extending environment is largely consistent with that of the immediate, including a landscape-scale mosaic of development, open grasslands, and areas of priority woodland and wetland. The outskirts of the towns of Bury, Radcliffe, and Whitefield occur to the north-west, west, and south-west respectively, intersected by the River Irwell which is bordered by parkland, playing fields, lowland fen and deciduous woodland. To the east, beyond the M66, land use includes a golf course to the south-east, a landfill to the north-east, and agricultural fields lining the Whittle Brook to the east, divided by hedgerows and with occasional small ponds. A larger waterbody is also present at a fishery abutting the Brightley Brook to the north-east.
- 6.4 Collectively, the immediate and extending networks of semi-natural habitat in the surrounding landscape provide an assortment of valuable habitats to a variety of protected species groups, with the group most typically associated with the habitat types described being bats, namely the common pipistrelle bat, which are typically associated with roosting in buildings set in sub-urban environments, and brown long-eared bats, which are commonly associated with woodland and more semi-natural environs, alongside assemblages of arable, grassland, and breeding birds.

- 6.5 One statutory designated site occurs within the 2.0km radial buffer at Hollins Vale LNR 72m to the north-west; a farmland reserve with priority woodland and wetland habitat which hosts bluebell (*Hyacinthoides non-scripta*), lesser celandine (*Ficaria verna*) and wood anemone (*Anemone nemorosa*) and supports an array of birds and butterflies.
- 6.6 The site does not fall within the Impact Risk Zone of any designated sites for which the proposed development would require consultation with Natural England.

Notable habitat and species records

- 6.7 An online search of MAGiC maps revealed that no European Protected Species Mitigation Licences (EPSMLs) pertaining to bats have been granted within a 2.0 kilometre radius of the application site.
- 6.8 One EPSML pertaining to GCN has been granted within the considered radius, located approximately 1.0km to the south and dating to 2017. Additionally, three 'Present' GCN Class Survey Licence Returns have been granted at 0.8km to the north-east and 1.0-1.1km to the south (see **Figure 6.2**).
- 6.9 Tyrer Ecological Consultants Ltd have previous and ongoing projects involving protected species within the 2.0 kilometre range surrounding the application site – as such, the following biological data (see **Table 6.1** below) is readily available to the Ecologist from the company database – all data has been previously submitted to the LERC serving the area.

Table 6.1– LERC submitted biological data records collected by Tyrer Ecological Consultants Ltd

Year	Distance from Site	Context (where relevant)
2021	1.8 kilometres north-east	Common pipistrelle commuting and foraging

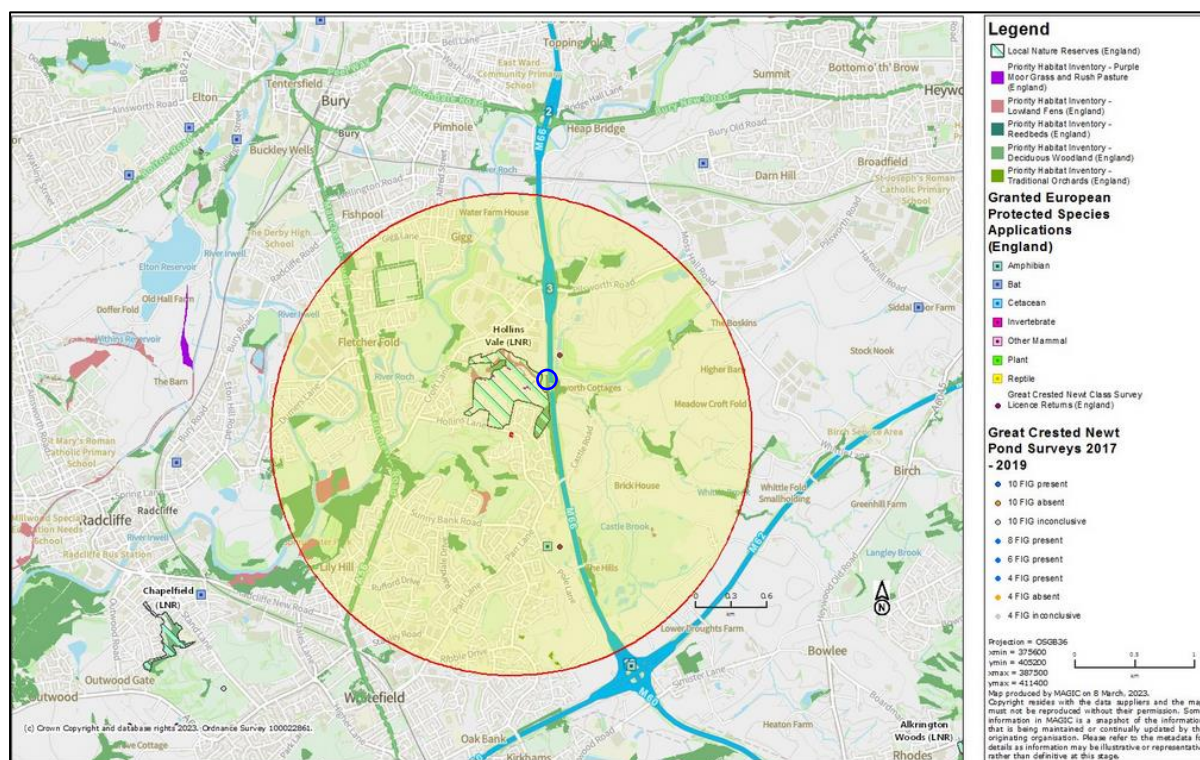


Figure 6.2 – Priority habitats, designated sites, and granted EPSMLs (circled) occurring within 2.0 kilometres of the application site (© MAGiC Maps 2023)

7.0 Field Survey Results

7.1 Habitat Survey

7.1.1 See **Table 7.1.1** (below) for baseline information and habitat descriptions; refer to **Appendix I** for any supporting imagery; scientific names are given in **Appendix II**. Refer to **Appendix IV** – UK Habitats Map for the location of described habitats & Target Notes (TN).

Table 7.1.1 – UK Habitat types within the survey area

Area Habitats	Sec. Codes	Description
g3c8 – Holcus- Juncus neutral grassland	10 Scattered scrub 17 Ruderal/ ephemeral 78 Abandoned	The site is comprised entirely of an area of disused grassland, with abundant soft rush (<i>Juncus effusus</i>) and hard rush (<i>Juncus inflexus</i>) interspersed amongst graminoids including Yorkshire fog (<i>Holcus lanata</i>), perennial rye-grass (<i>Lolium perenne</i>), common bent (<i>Agrostis capillaris</i>) and cock's-foot (<i>Dactylus glomerata</i>), and forbs frequently associated with disturbed or improved grassland including creeping buttercup (<i>Ranunculus repens</i>), dandelion (<i>Taraxacum agg.</i>), herb-Robert (<i>Geranium robertianum</i>), and mosses including fern-leaved hook-moss (<i>Cratoneuron filicinum</i>) and springy turf-moss (<i>Rhytidiadelphus squarrosus</i>). The grassland is being encroached upon by ruderal species such as broad-leaved dock (<i>Rumex obtusifolius</i>), common nettle (<i>Urtica dioica</i>), mugwort (<i>Artemisia vulgaris</i>) and willowherb (<i>Epilobium sp.</i>), and scattered scrub regrowth including bramble (<i>Rubus fruticosus agg.</i>), alder (<i>Alnus glutinosa</i>), hawthorn (<i>Crataegus monogyna</i>) and willow (<i>Salix sp.</i>).
Linear Habitats	Sec. Codes	Description
h2b – Other hedgerows	48 Non-native	A cherry laurel (<i>Prunus laurocerasus</i>) hedgerow along the eastern site boundary.
u1e – Built linear feature	69 Fence	A timber/barbed wire fence bordering the site to the north, south, and west.
Target Note	1	Location of vegetated earth mound.
	2	Location of Wall Cotoneaster (<i>Cotoneaster horizontalis</i>).

7.2 Vegetation

Notable species

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

Invasive Non-Native Species (INNS)

- 7.2.2 One species listed as an INNS under Schedule 9 (Part II) of the Wildlife & Countryside Act (1981) was located immediately to the east of the red line boundary of the site during the diurnal appraisal, in the form of wall cotoneaster.

7.3 Bats

- 7.3.1 No buildings occur within the application site boundary.
- 7.3.2 No trees occur within the site boundary, though a number of semi-mature and mature trees are present adjacent to the northern boundary, including two larger ash (*Fraxinus excelsior*) trees. A number of minor potential roost features were identified on these trees abutting the site in the form of callus rolls and split/cracks at fallen boughs.
- 7.3.3 These trees should also be considered of value to commuting/foraging bats, whereby they act as landmarks used for navigation and as foci around which invertebrate prey species typically gather.

7.4 Birds

- 7.4.1 In relation to WCA Schedule 1 specially protected bird species, such as barn owl, no evidence was found to suggest any form of site use or historic nesting, and the trees abutting the site are too small to provide nesting or even roosting opportunities.
- 7.4.2 In relation to wider more common breeding birds, whilst no current nesting was observed, all denser vegetation including the cherry laurel hedgerow and adjacent trees provide nesting platforms that might be utilised by small passerine bird species for breeding, whilst the tussocky areas of grassland provide opportunities for ground nesting birds.

7.5 Other Terrestrial Mammals

Badger & hedgehog

- 7.5.1 No field signs were located to suggest the presence of Badgers on the application site; these signs include setts, latrines, pathways, hairs, footprints or feeding signs such as snuffle holes and/or scratched logs/deadwood. The surrounding habitat is considered to be generally unsuitable for badgers, with no areas of woodland in the immediacy or linked to the site via corridors of connectivity. Impacts to Badger or other, specially protected mammals such as brown hare can be effectively ruled out under the proposed works.
- 7.5.2 In respect of hedgehogs, the site provides no suitable hibernation or refuge habitat in the form of woodland or dense leaf litter, though the open grassland could be utilised for foraging and commuting, subject to the presence of this species in the area.

7.6 Herpetofauna

Great crested newt (GCN)

- 7.6.1 In respect to great crested newt (GCN), no ponds exist within the red line boundary of the site or within the 250 metre radial buffer surrounding the application site. The site does provide some suitability for this species which will use tussocky grassland for commuting, foraging, and refuge; however, taking into account the absence of a nearby pond network, the development encapsulation the northern, eastern, and southern boundaries of the site, and the absence of any GCN records in proximity, the presence of this species within the survey area is highly unlikely and no impacts are foreseen.

Wider Herpetofauna

- 7.6.2 Similarly, given the absence of nearby waterbodies, the presence of even robust species such as the common frog (*Rana temporaria*) is unlikely, though cannot be ruled out entirely.
- 7.6.3 With regards to reptiles, the application site itself is predominantly a homogenous habitat with a no structural diversity, ecotones, or refuge opportunities, which is isolated from areas of suitable habitat. The high disturbance regime due to adjacent residential development is likely to further discourage the presence of reptiles, and this taxon is thus unlikely to be present.

7.7 Invertebrates

- 7.7.1 An assessment of the habitats and features on the site found an absence of ecotones, standing or fallen deadwood, leaf litter or garden waste, which typically would provide suitable nourishment or habitat for various invertebrate species. The vegetated mound in the southern half of the site does provide a number of slopes which can be favoured by invertebrates including beetles and wasps for burrowing, though no specially protected invertebrate species nor significantly diverse invertebrate assemblages are likely to be present at the site.

8.0 Conclusions & Recommendations

Habitats

- 8.1 No priority or otherwise specially recognised habitats occur within the application site boundary.

Vegetation

- 8.2 No impacts are anticipated in relation to any priority vegetative species or communities at this time.
- 8.3 One Schedule 9 (WCA) listed INNS was recorded immediately adjacent to the eastern site boundary in the form of wall cotoneaster. and there are no further recommendations in relation to such species. 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.
- 8.4 To prevent incidental spread of this species during the proposed works it is recommended that a precautionary working method statement with appropriate biosecurity protocol is instated prior to commencement of site works.
- 8.5 As a means of improving biodiversity value / enhancing the site any new landscaping should aim to incorporate a majority use of native species as opposed to non-native exotic species which offer significantly fewer benefits to our native fauna. Suitable species for native landscaping have been provided in **Appendix III**.

Bats

- 8.6 No existing buildings are understood to be affected by the development proposals.
- 8.7 No trees occur within the application site boundary or are understood to be affected by the proposed works; no further surveys will therefore be recommended in relation to bats. However, two ash trees abutting the northern boundary were noted to host a number of minor PRFs including splits/cracks and callous rolls.
- 8.8 Furthermore, these trees, along with the linear hedge feature in which they are located, are likely to provide foraging and/or commuting habitat for bats, subject to the presence of bats in the area.
- 8.9 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, notably including these trees and the hedge to the north. If any of the identified PRFs on these trees outside of the site boundary were subjected to an increase in lighting, this could also prevent bats from utilising them for roosting purposes. 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 overleaf, though the reader is referred to the Bat Conservation Lighting Guidelines for further information.

Appropriate luminaire specifications: Luminaires come in a myriad of different styles, applications and specifications which a lighting professional can help to select. The following should be considered when choosing luminaires.

All luminaires should lack UV elements when manufactured. Metal halide, 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. Lighting should be directed to where it is needed, and light spillage avoided. This can be achieved by the design of the luminaire and by using accessories such as hoods, cowls, louvres and shields to direct the light to the intended area only. Planting can also be used as a barrier or manmade features that are required within the build can be positioned so as to form a barrier.

Predicting where the light cone and light spill will occur: There are lighting design computer programs that are widely in use which produce an image of the site in question, showing how the area will be affected by light spill when all the factors of the lighting components listed above are taken into consideration. This should be a useful tool to inform the mitigation process.

Light levels: The light should be as low as guidelines permit. If lighting is not needed in any particular area, do not light. Numerous software programmes are currently available which can be used inform lighting plans, demonstrating how lighting decisions will illuminate a site.

Please refer to the 'Landscape and urban design for bats and biodiversity' (Gunnell *et. al.*, 2012, Bat Conservation Trust), and Guidance Note 8 'Bats and Artificial Lighting' 2018, Bat Conservation Trust for further information.

Birds

- 8.10 In relation to WCA Schedule 1 specially protected bird species, no evidence to suggest any form of breeding behaviour or other usage of the site was encountered. Impacts proposals to these specially protected birds from the development proposals can, therefore, be effectively ruled out.
- 8.11 In relation to more common birds, all denser vegetation present offers birds a limited number of possible nesting opportunities, which might be utilised during the breeding bird season of March – August; the tussocky areas of grassland may also be utilised by ground nesting birds.
- 8.12 Given that all birds are protected when at the nest, it is therefore recommended that any tree felling / pruning and vegetation clearance works on site are carried out outside of the breeding bird season (March – August inclusive). For works undertaken 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.
- 8.13 Where / if active nests are 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.

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."*

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.*

Other Terrestrial Mammals

- 8.14 No field signs were located to suggest the presence of Badgers or any other specially protected species including brown hare; no further surveys are required nor impacts likely to occur to any specially protected mammal species.
- 8.15 In relation to hedgehog, habitats present offer some suitability for foraging and commuting, and no suitability for refuge and hibernation; the presence of this species is likely occasional at most. Strictly as a precautionary measure it is recommended that if hedgehogs are encountered during working operations, particularly if there is a risk of danger to the animals, they should be carefully placed in like-for-like habitat away from the working area. Low-angled, sloping boards of approximately 300mm width should be placed within any excavations at the end of each working day to facilitate a means of escape for small mammals.

Herpetofauna

Great crested newt

- 8.16 The area surrounding the application site is absent of records of GCN or a pond network that could support a population of GCN, and this species can be reasonably ruled out as an ecological constraint in relation to the development proposals. Similarly, other more common, robust amphibian species such as common toad and common frog are unlikely to utilise the site, though may occasionally be present given the proximity to a local watercourse.
- 8.17 Should any amphibians be encountered during the proposed works, it is recommended that they be carefully picked up in wetted gloves and transferred to shaded semi-natural habitat beyond the northern site boundary, away from the works area. The applicant and all contractors would be aware that if at any stage a newt is encountered during works, or at any other stage of the work programme, works would be required to immediately cease and the Ecologist made aware as to provide identification and recommend further guidance in this situation. In the event that GCN or their habitat would be directly impacted upon, including through disturbance, a mitigation licence may be required to legally proceed with the development.
- 8.18 The site is unlikely to host a population of any reptile species based on habitat types and its suburban location, and there are no further recommendations in relation to this taxon.

Invertebrates

- 8.19 No impacts to local populations of invertebrates are foreseen; no further surveys are recommended, though enhancement measures for invertebrates as provided within **Appendix III** should be considered by that applicant to improve the biodiversity value of the site.

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Appendix I: Site Photographs



Plate 1 – *Character of the northern end of the site as viewed from the north-east*



Plate 2 – *Character of the southern half of the site with abundant rushes, encroaching scrub*



Plate 3 – *Character of the south-west of the site*



Plate 4 – *Character of the vegetated mound*



Plate 5 – *Character of ash tree at northern site boundary with callous roll indicated*



Plate 6 – *Character of ash tree at north-western site boundary with minor features indicated*



Plate 7 – *Wall cotoneaster immediately adjacent to the site boundary*



Plate 8 – *Wall cotoneaster immediately adjacent to the site boundary*

Appendix II: 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).

Each species recorded was given an abundance value according to the standard DAFOR scale, where:

- D = Dominant
- A = Abundant
- F = Frequent*
- O = Occasional*
- R = Rare*

(*These values can be prefixed by the letter L (locally) to provide more subtle biogeographical data.)

Taxon	Common Name	Scientific Name	DAFOR
Bryophyta (Mosses)	Fern-leaved Hook-moss	<i>Cratoneuron filicinum</i>	LF
	Springy Turf-moss	<i>Rhytidiadelphus squarrosus</i>	F
Pinophyta (Coniferous trees)	Cypress sp.	<i>Cupressus sp.</i>	R
Anthophyta (Flowering plants)	Alder	<i>Alnus glutinosa</i>	O
	Bramble	<i>Rubus fruticosus agg.</i>	O
	Broad-leaved Dock	<i>Rumex obtusifolius</i>	O
	Buddleja	<i>Buddleja davidii</i>	R
	Cherry Laurel	<i>Prunus laurocerasus</i>	LA
	Cleavers	<i>Galium aparine</i>	O
	Cock's-foot	<i>Dactylus glomerata</i>	F
	Common Bent	<i>Agrostis capillaris</i>	F
	Common Ivy	<i>Hedera helix</i>	LF
	Common Nettle	<i>Urtica dioica</i>	O
	Common Ragwort	<i>Jacobaea vulgaris</i>	O
	Common Sorrel	<i>Rumex acetosa</i>	O
	Cow Parsley	<i>Anthriscus sylvestris</i>	O
	Creeping Buttercup	<i>Ranunculus repens</i>	O
	Creeping Thistle	<i>Cirsium arvense</i>	O
	Dandelion	<i>Taraxacum agg.</i>	O
	Hard Rush	<i>Juncus inflexus</i>	A
	Hawthorn	<i>Crataegus monogyna</i>	O
	Herb-Robert	<i>Geranium robertianum</i>	LO
	Holly	<i>Ilex aquifolium</i>	R
	Honeysuckle	<i>Lonicera periclymenum</i>	LO
	Mugwort	<i>Artemisia vulgaris</i>	O
	Pedunculate Oak	<i>Quercus robur</i>	R
	Pendulous Sedge	<i>Carex pendula</i>	O
	Perennial Rye-grass	<i>Lolium perenne</i>	A
	Soft Rush	<i>Juncus effusus</i>	A

Land at Hollins Close, Unsworth, Bury, BL9 8AW
Preliminary Ecological Appraisal

	Wall Cotoneaster INNS	<i>Cotoneaster horizontalis</i>	R
	Willow sp.	<i>Salix sp.</i>	O
	Willowherb sp.	<i>Epilobium sp.</i>	O
	Wood Avens	<i>Geum urbanum</i>	R
	Yew	<i>Taxus baccata</i>	R
	Yorkshire Fog	<i>Holcus lanata</i>	A

Appendix III: Biodiversity Enhancement: General Recommendations

Enhancing a development site for Bats

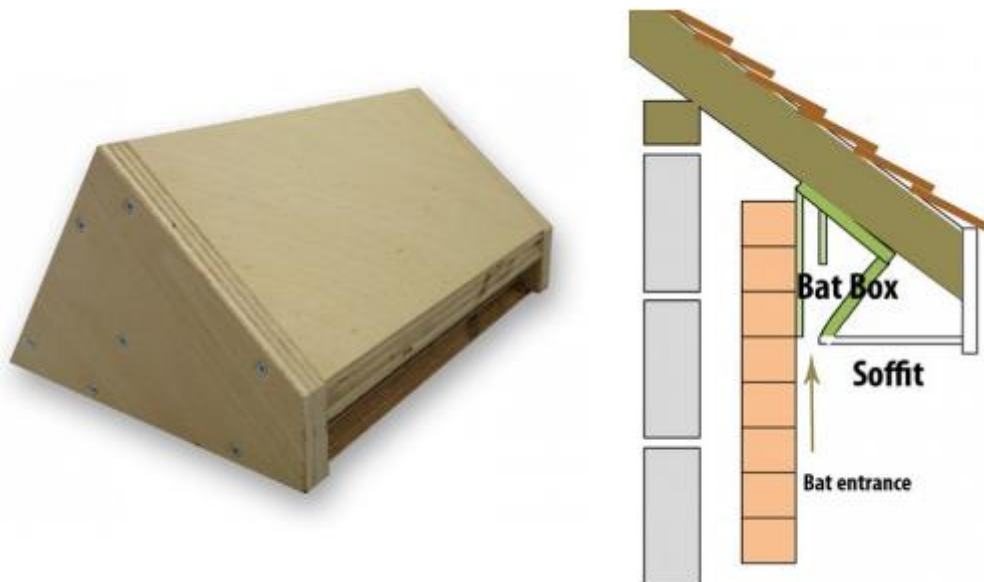
Integrated bat box

The Habibat Bat Box is a solid box made of insulating concrete with internal roosting space. The box blends seamlessly into brick-built properties and may be incorporated into the fabric of buildings, being best placed on gable elevations.



Soffit access

Where soffits are instated at gable elevations, roost provision may be instated in the form of a soffit bat box with internal roosting space.



Externally fitted boxes

A large number of externally fitted box models for bats exist for buildings and trees. Suitable models for both buildings and trees may include the Greenwoods Ecostyrocure Bat Box.

See - <https://www.greenwoodsecohabitats.co.uk/shop>

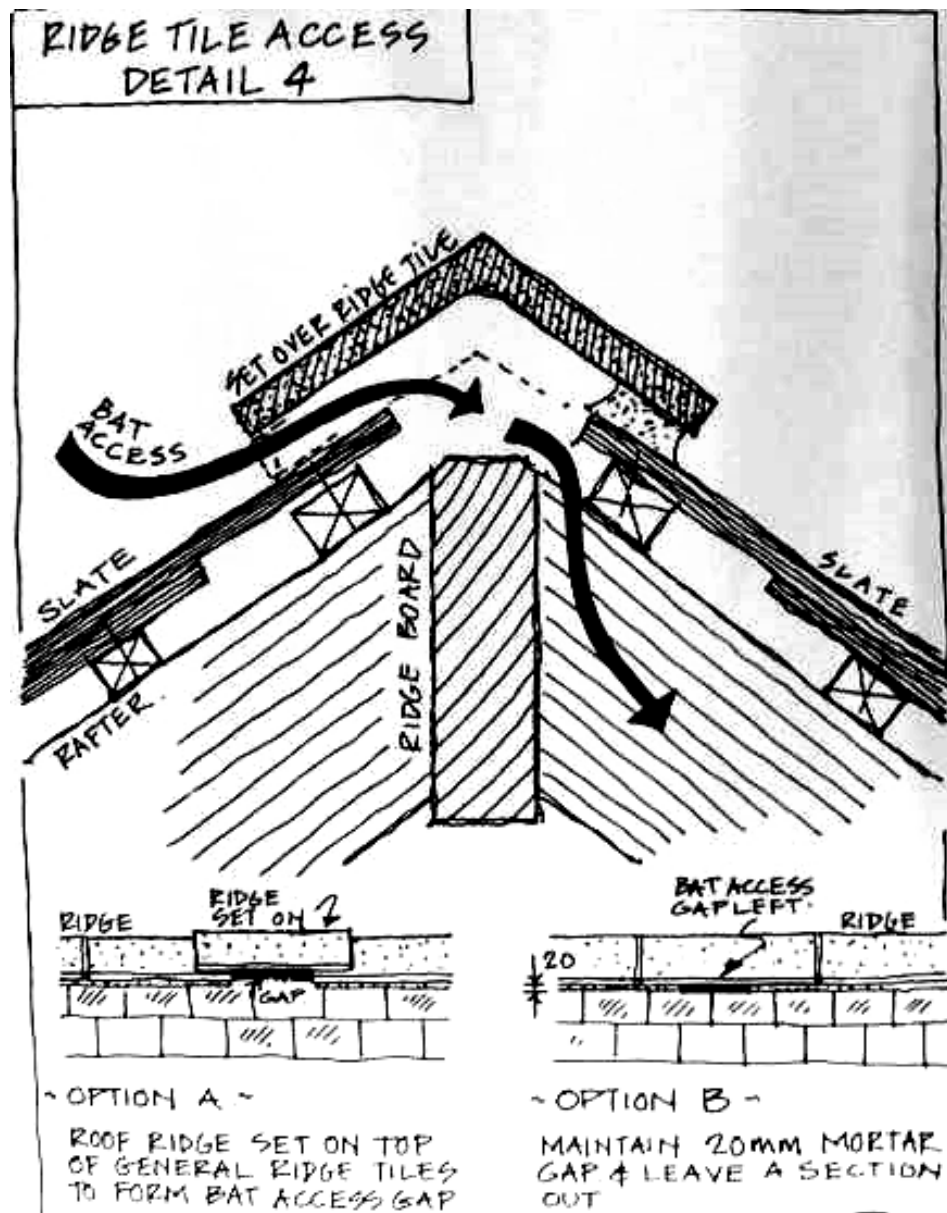


Ridge access

Where appropriated, ridge tile access should be made with the incorporation of traditional Bitumen 1F underfelt immediately beneath ridge tiles. Breathable BRM membrane can cause significant problems where bats are in contact with it, whereby their fine claws become entangled within the fibres of the membrane, entrapping and killing bats.

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Breeding Bids – 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 – Swallow

Swallows are migratory birds who make a return trip to the UK from Africa twice a year. Numbers of swallows are currently large enough that they have been placed onto the green-list for Birds of Conservation Concern in the UK, however numbers can fluctuate heavily based on environmental and ecological factors, with high regional variation observed.



Swallows will readily adopt these nest cups which are based on the size and shape of natural swallow nests. The nest cup is ideal for placing in a garage, shed, stable, barn or even beneath an archway and should be placed beneath the roof with free access. It provides somewhere secure for swallows to nest and means that they will expend less energy in producing their own nest. It also means that they do not need to find suitable nest building mud which can be in short supply in a dry spring. The nest cup consists of a moulded resin/concrete bowl with drainage hole, fixed to a 100% recycled plastic backing plate.

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

Specification:

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.

Hedgehog Highway

Hedgehog numbers have dramatically declined in recent years. Research suggests that this is partly because it is becoming harder for hedgehogs to move freely due to an increase in the number of solid walls and fences being erected around gardens. This reduces the available foraging area and so restricts the amount of food that they can eat as well as reducing the possibility of meeting a mate. Creating a hole in a garden wall or fence will allow local hedgehogs to pass through from garden to garden safely.

A hole measuring 13cm by 13cm is the right size for a hedgehog to pass through but too small for most pets. Once you have made your hole in the fence or wall, you can fix the Eco Hedgehog Hole Plate to the fence, ensuring that the hole does not get blocked or stretched. The plate has six screw holes, three along each side, which can be used to fix the plate to your fence or wall. Additional holes can be made in the plastic if required.

The Eco Hedgehog Hole Plate is made from 100% recycled plastic, which is mostly derived from plastic waste from farms across the UK. The plastic hedgehog hole is UV-stabilised so will not rot or degrade over time.

Specification:

- * Material: Low density Polyethylene board (100% recycled plastic)
- * Dimensions: Height 26cm x width 23cm
- * Entrance Hole: 13cm x 13cm
- * Country of Manufacture: England



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
- * Origin: Cornwall, UK
- * 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 - recommended species

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 (*Prunus spinosa*), hawthorn (*Crataegus monogyna*), hazel (*Corylus avellana*), and holly (*Ilex aquifolium*), whilst climbers/creepers such as hops (*Humulus lupulus*) and honeysuckle (*Lonicera periclymenum*) 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 (*Quercus robur*), wild cherry (*Prunus avium*), and alder buckthorn (*Frangula alnus*).

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

