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Preliminary Ecological Appraisal

December 2022

Land to the North of Stamford Street,
Mossley,
Ashton-under-Lyne,

OL5 0JS

National Grid Ref: SD96750222

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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 in Mossley, Ashton-under-Lyne, Tyrer Ecological Consultants Ltd carried out a Preliminary Ecological Appraisal (PEA) in November 2022.

The PEA was commissioned by Pharchitecture; proposals are for the demolition of two existing stable buildings and the erection of a new building structure with associated hardstanding for site access.

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

Habitat & Vegetation: The proposals are likely to have no anticipated impacts in relation to any priority botanical species or priority community assemblage. A linear area of hedgerow is present to the south of the site, adjacent to Stamford Street, and is categorised as a priority UK habitat. The hedgerow is considerably homogenous and would benefit from enhancement including the provision and planting of native hedge species to improve the condition of the feature. Appendix III has suitable planting options to be incorporated into a planting plan. Furthermore, it is recommended that the dry-stone wall adjacent to the western boundary of the site is retained and enhanced by way of repair.

Invasive Species: A single Invasive Non-Native Species (INNS), namely Himalayan balsam, listed under the Schedule 9 (WCA) was recorded within the site boundary. Whilst it is not illegal to host any species designated as such within a site, it is an offence, under current legislation, 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 these 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: Based upon the findings of the survey, covered through sections 6.0 – 7.0 of the report and supported by Appendix I, the buildings on site are determined to offer '**negligible** bat roost potential in accordance with Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016); no further surveys are required in relation to bats, with general enhancement measures recommended in Appendix II.

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.

Figure 8.1 – *Bat Conservation Trust extract on Negligible roost potential requirements*

No further surveys in the form of dusk/dawn emergence / re-entry surveys are recommended, however, despite the dwelling pertaining to negligible suitability, due to identified, but limited features noted, it is recommended that, purely as a precautionary measure, the proposed demolition of the two buildings is completed under supervision by a suitably licenced ecologist, or Ecological Clerk of Works (ECoW). During the demolition this area will be subject to inspection using a torch and/or endoscope prior to the commencement of work, to inspect the space for the unlikely presence of bats or bat droppings; if absent the works should proceed to completion. However, if bat/s is/are located, work will cease, the area made good and subsequent dusk/dawn observations will need to be completed. A granted European protected species mitigation licence (EPSML) would further be required to legally proceed with the scheme.

The single ash tree between B1 and B2 within the site boundary was identified to have PRF's in the form of a lightning strike resulting in potential cavities and was duly categorised '**Low**' bat roost suitability.

If this tree is to be removed, then a soft felling approach under ECoW supervision which sees limbs cut and left grounded for a few nights to allow any bats to escape; this should be undertaken in September/

October, to avoid maternity and hibernation seasons when bats are vulnerable to disturbance (BCT, 2018).

Breeding Birds: 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.

In relation to common birds, the scrub and trees present could offer small birds nesting habitat, particularly during the breeding bird season.

In the interests of potential impact avoidance it is recommended that any proposed works which may impact these areas of vegetation should be undertaken outside of the nesting bird season. The nesting bird season is weather dependent but generally extends between March and September inclusive (peak period March-August). 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. If birds are found nesting any works which may affect them would have to be delayed until the young have fledged and the nest has been abandoned naturally, for example via the implementation of an appropriate buffer zone (species dependent) around the nest in which no disturbance is permitted until the nest is no longer in use.

Terrestrial Mammals: Whilst no evidence of Badger, brown hare or Hedgehog was identified anywhere within the survey boundary, the occasional presence of such species for foraging and commuting purposes is considered possible.
It is therefore recommended that a pre-commencement check for evidence of badger and hedgehog take place six weeks prior to the start of any remediation works.

Hedgehog may use the site for foraging and commuting, whilst surrounding environs offer means of shelter/hibernation. The proposals pose no identifiable risk of injury or disturbance impacts, however, a precautionary approach should be applied considering hedgehogs. If in the event any hedgehogs are encountered during the proposed works, they should be left in situ unless they're at an immediate risk of harm – in which case, they should be moved to an area of like-for-like habitat just off site / adjacent to site.

Great Crested Newt: Given the lack of available waterbodies within the site boundary, as well as 250 metre radial buffer, it is considered that the likelihood of GCN utilizing the site is negligible, and no further surveys or recommendations are required in relation to this species.

Wider Herpetofauna: There is a reasonable likelihood of Common Frog and Common Toad being present on site. Due to general declines in most British amphibian species in recent years.

It is therefore recommended, as a precautionary measure, that an appropriate Method Statement is created by a suitably qualified Ecologist/Ecological Clerk of Works (ECoW), detailing a list of Reasonable Avoidance Measures (RAMS) to prevent risk to this species.

If in the event any amphibians are encountered during any stage of site operations, and they are at risk of harm, site personnel are advised that using wet gloves they should be removed from harm by being carefully handled and removed off the construction site to be placed in nearby like-for-like habitat.

The site offers limited suitability to reptiles in the form of varied topography within the wider landscape, shelter, hunting and basking; offered primarily by the dry-stone wall and secondarily the manure pile. These areas are limited and form a relatively small proportion of suitable habitat in the immediate area.

Consideration has been given to the recommendation for reptile surveys, however, given the likely retention of the dry-stone wall (which is the primary feature of interest for reptiles) it is instead recommended that reptiles be included within the above RAMS.

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1.0 Introduction & Scope

1.1 As part of a proposed planning application in Mossley, Ashton-under-Lyne, Tyrer Ecological Consultants Ltd carried out a Preliminary Ecological Appraisal (PEA) in November 2022.

1.2 The PEA was commissioned by Pharchitecture; proposals are for the demolition of two existing stable buildings and the erection of a new building structure with associated hardstanding for site access. See **Figure 1.1** for site plan.

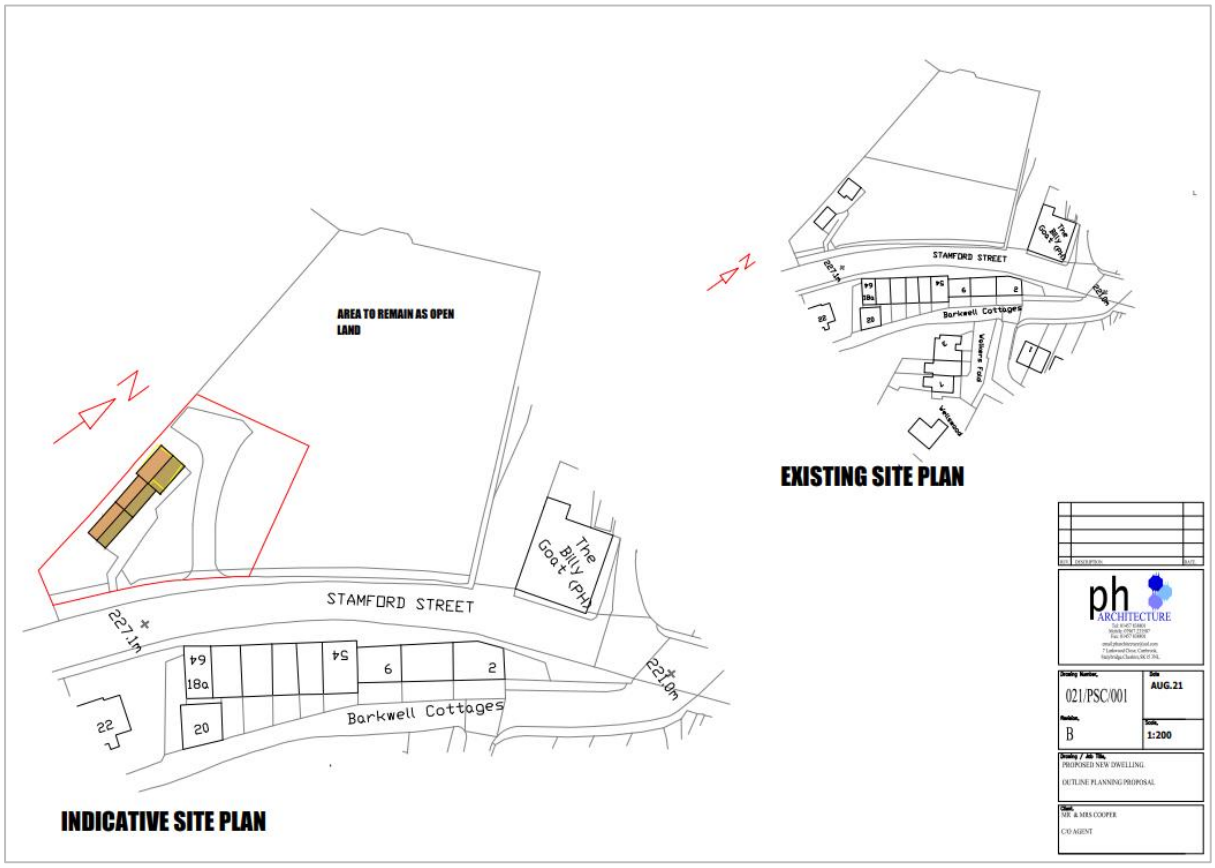

Figure 1.1 - *Existing & Indicative site plans*

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, that could be affected by the proposals for which the application seeks consent.

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

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);
- Buildings and trees, where present, 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, 3rd ed. (2016).

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 was 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 - for example, Dormouse (*Muscardinus avellanarius*).

2.0 Legislation & Policy

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

- Conservation of Habitats and Species Regulations (amendment) (2019) (EU Exit),
- Wildlife and Countryside Act (1981) (as amended),
- 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),
- Wild Mammals Protection Act (1996)

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 (e.g. otter), 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	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 (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.

Invasive Plant Species	Wildlife and Countryside Act (1981) (as amended)	Species listed within Schedule 9 as invasive, including Japanese Knotweed (*Reynoutria japonica*) and Himalayan Balsam (*Impatiens glandulifera*), 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.
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.
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:

180. 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 reasons63 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 EN15 of the Manchester Core Strategy 2012 – 2027, regarding Biodiversity and Geological Conservation, states:

"*The Council will seek to maintain or enhance sites of biodiversity and geological value throughout the City. Particular consideration will be given to:*

- *sites with international or national designations for their biodiversity value. Manchester contains one Site of Special Scientific Interest (SSSI) (Cotteril Clough); there is a Special Area of Conservation (SAC) and an SSSI just over the border in Oldham (both on the Rochdale Canal within Oldham);*
- *other sites of biodiversity value, including Sites of Biological Importance (SBIs) and Local Nature Reserves (LNRs); Manchester currently has 35 SBIs (including the Rochdale and Ashton Canals) and 7 LNRs; priority habitats found within Manchester, as listed in the Manchester Biodiversity Strategy and included in the Greater Manchester Biodiversity Action Plan (GM BAP);*
- *protected and priority species, as listed in the Manchester Biodiversity Strategy and included in the Greater Manchester Biodiversity Action Plan (GM BAP); sites that are recognised for their geological importance;*
- *the Council's objective to protect and conserve the City's existing trees and woodlands and the aim for a net increase in trees across the City."*

2.7 The policy also delves further into biodiversity protection and enhancement, and goes on to say:

"Developers will be expected to identify and implement reasonable opportunities to enhance, restore or create new biodiversity, either on-site or adjacent to the site, contributing to linkages between valuable or potentially valuable habitat areas where appropriate… Any adverse impacts on biodiversity will need to be justified against the wider benefits of the proposal, assessed against other LDF policies. Where adverse impacts are unavoidable, developers will be required to provide appropriate mitigation and/or compensation."

3.0 Priority Habitats & Species

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 relevant to the appraisal:

Habitats:

- Hedgerows, Lowland mixed deciduous woodland, Upland heathland

Species:

- Bats: Brown long-eared (*Plecotus auritus*), Soprano Pipistrelle (*Pipistrellus pygmaeus*), Common Pipistrelle (*Pipistrellus* pipistrellus) and Common Noctule (*Nyctalus noctula*).,
- s.41 Bird species that include but not limited to: Barn owl (*Tyto alba*), Grey Partridge (*Perdix perdix*), Dunnock (*Prunella modularis*), Bullfinch (*Pyrrhula pyrrhula*), Song thrush (*Turdus philomelos*), Tree Sparrow (*Passer montanus*), House Sparrow (*Passer domesticus*), Starling (*Sturnus vulgaris*), Willow Tit (*Poecile montanus*) for e.g.,
- Land mammals that include: Water vole (*Arvicola amphibius*), Otter (*Lutra lutra*), Hedgehog (*Erinaceus europaeus*), Brown hare (*Lepus europaeus*), for e.g.,
- Herpetofauna that include: Great Crested Newt (GCN) (*Triturus cristatus*), Slow-worm (*Angius fragilis*), Common toad (*Bufo bufo*), Common lizard (*Zootoca vivipara*), for e.g.,
- Botanical species that includes Purple ramping-fumitory (*Fumaria purpurea*), Bluebell (*Hyacinthoides non-scripta*), Cornflower (*Centaurea cyanus*) for e.g.

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 biodiversity;
- Enhance and improve biodiversity where possible, and,
- Promote biodiversity at a local level.

3.6 The Greater Manchester Biodiversity Action Plan (GM BAP, 2009) lists key local habitats/species considered to be rare or declining in the area; some may be of national concern while others are significant at local level. The following local plans are considered of potential relevance to the appraisal.

Species

- Bats (all);
- Black Redstart (*Phoenicurus ochruros*)

Habitats

- Hedgerows
- **Dry stone walls**

- Native Black Poplar (*Populus nigra subsp. betulifolia*);
- Willow Tit (*Poecile montanus*).

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 within 2.0 kilometres of the site boundary. To do so, the 'Multi Agency Geographic Information for the Countryside (MAGiC – provided by Defra)' along with data from the 'Natural England Open Data Geoportal' was accessed to gather such information. This particular interactive mapping service was also used to locate any European Protected Species Mitigation Licenses (EPSML) and species records to further inform conclusions concerning protected 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 (© 2020/21) 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 In addition the Council Planning Portal 'Search for planning applications' 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 (Tameside Metropolitan Borough, 2022).

4.5 A commercial data request to the Local Environment Records Centre serving the area Greater Manchester Record Centre (GMRC) has not been sourced at this time:

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) also 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 As exemptions outlined in the guidance above can be applied in good practice for the proposals for which the applicant seeks consent, it is considered unnecessary to conduct a commercial data request at this time as enough information has been obtained, however, if a data search is considered to be necessary by the Local Authority, or environmental 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.

Field Survey

4.7 A daytime preliminary ecological appraisal was conducted on the 7th November 2022 in rainy conditions (12ºC), average wind 1/12 (Beaufort scale), average 50% cloud cover, by the following surveyor (**Table 4.1**).

Table 4.1 - Site Surveyor credentials

Name	Description of most relevant credentials
Mr. M. Pritchard ACIEEM (Senior Ecologist)	• Six years professional consultant experience & extensive training in cross habitat/species ecology; • Relevant Degree: Countryside, Conservation & Recreational Management; • Licenced in Bats: (2020-5039-CLS-CLS) (Class 1) and accredited agent on the (Class 2) Natural England bat licence of Mrs. K. Wilding (CLS-14227); • Licensed for Great Crested Newt: CL08 (Great Crested Newt Survey Level 1) - 2018-34062-CLS-CLS (England); • Licensed for Sand Lizard & Natterjack Toad (2021-55107-SCI-SCI); • FISC Level - 3 (2019) (Botanical).
Mr. D. Burrows QCIEEM (Ecologist)	• Three years professional ecological experience & extensive training in cross habitat/species ecology; • Relevant Degree: BSc (hons) Wildlife Conservation; MSc Conservation and Biodiversity; • Licensed for Great Crested Newt: CL08 (Great Crested Newt Survey Level 1) – 2022-10604-CL08-GCN.

Floristic assessment

4.8 The survey followed the UK Habitat Classification Version 1.1 (Butcher, et.al., 2020) being introduced as part of the roll out of Biodiversity Net-gain with reference to the Joint Nature Conservation Committee (JNCC) Phase 1 Habitat Methodology standards (JNCC, 2010) and 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 Additional 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 (see **Figure 4.1**).

4.11 The site 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).

For botanical species list compiled, see **Appendix II**.

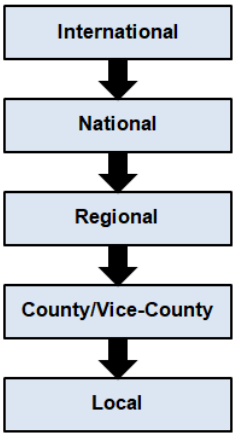

Figure 4.1 - *Geographic Frame of Reference entailing degrees of conservation importance*

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 touched upon 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; buildings (where present) were inspected for potential places that may be of value to bats and to determine evidence of use. This typically involves a search for potential roost features (PRF) both internally (investigation of internal elevations) as well as externally, comprising an investigation of features (roof material, building components) using a high-powered torch. Field signs of bats typically comprise bat droppings, incidental

animal presence, dead specimens and/or prey items. The surrounding habitat was also considered in terms of general suitability.

4.14 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.

4.15 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 4.2**).

4.16 Factors considered during the preliminary roost assessment include:

- Knowledge of bat species relevant to the site location and geographical range,
- Nature of the immediate / surrounding habitat in relation to foraging opportunities,
- Presence and conditions of loft spaces, upper floors, roof linings,
- Presence / absence of roost potential,
- Value and types of roost potential if present (i.e. - maternity, hibernation, transition).

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 4.2 – *Bat Conservation Trust (BCT) guidelines extract*

Breeding Birds

4.17 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 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.

4.18 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), for example Barn Owl (*Tyto alba)* and other priority species.

Other terrestrial mammals

4.19 The walkover included a search for field signs 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. The application site was also assessed for the presence/suitability of Hedgehogs and Brown hare.

Great Crested Newt (GCN)

4.20 During desktop assessment a 250m 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.*

4.21 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 any 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.

4.22 From the aerial imagery and desk study, it was assumed that there were no waterbodies within the site boundary. No other standing water bodies are present within a 250-metre radial buffer of the site.

4.23 The GCN Habitat Suitability Index (HSI) was therefore not utilised as there were no standing water bodies to be assessed.

Reptiles

4.24 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,

4.25 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 *et al.*, 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

4.26 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.

4.27 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 surveyors Mr. Burrows.

5.0 Limitations

5.1 This report does not contain a comprehensive list entailing the totality of botanical taxa on Site. Though the list is extensive, the PEA took place during a sub-optimal time of the year; species recorded within **Appendix II** were recorded from a combination of the seasonal timing the survey took place and botanical identification skills of the survey team. 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 survey took place outside of the typical bat and breeding bird 'active' season thus within a sub-optimal period; though this can reduce the probability of encountering any fresh evidence of these groups at/around structures and trees, the value and suitability of potential roost/nesting opportunities can, however, be adjudged as definitively as within the active season, therefore timing is not considered a constraint.

5.3 In considering 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 land to the north of Stamford Street (termed in part as "the application site / red line boundary") measures out approximately 0.1 hectares; it is predominantly enclosed horse grazed pasture, located in the northwest Mossley, in a semi-rural setting approximately 0.63 kilometres north-west of the town centre; the site is 5.4 kilometres from Oldham town centre. See **Figure 6.1** for indicative location in landscape.

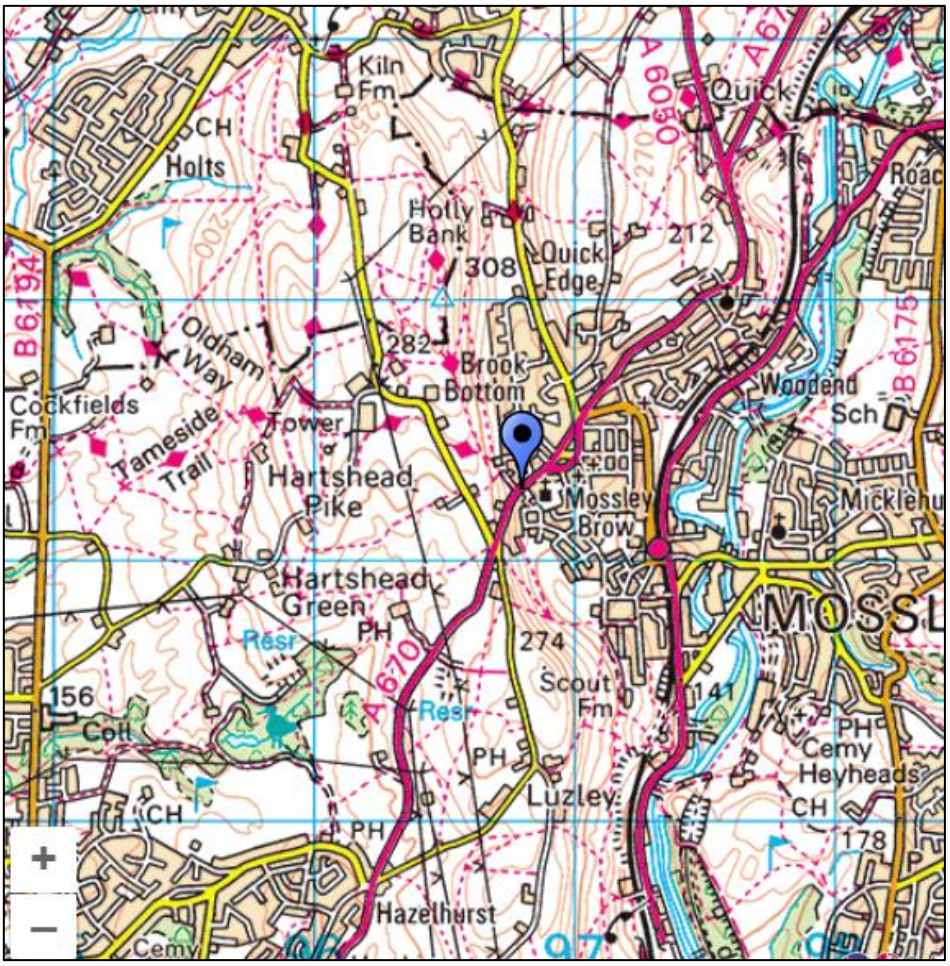

Figure 6.1 - *Location of the application site within the landscape (Source: BNHS Grab a Grid Reference Duo / OS Maps 2022*

6.2 The immediate habitats consist of upland dwarf shrub heath / moorland, arable land, open grazing pasture, mixed deciduous broadleaf woodland, treelines, hedgerows and fencing. There is an area of residential properties along Stamford Street, south of the Site, with planted gardens including linear treelines and hedgerow habitat.

6.3 Extending environs are fairly similar to that of the immediate with predominantly arable land and grazing pasture to the west of the site, a strip of moorland to the north of the site, and more sub-urban environment including Mossley train station to the west. Additionally, sports fields, managed gardens, and priority deciduous woodland lie to the south and west of the site interspersed within the Mossley sub-urban environment; the River Tame lies approximately 0.8 kilometres to the east of the site.

6.4 Collectively, these areas of natural and semi-natural habitat provide an assortment of opportunities to a variety of protected species groups. The group most typically associated with the habitat types described are bats, namely the Common Pipistrelle (*Pipistrellus pipistrellus*) bat, which are typically associated with roosting in buildings set in sub-urban

environments, and Brown Long-eared bats (*Plecotus auritus*), which are commonly associated with woodland and more semi-natural environs, alongside several bird species known to be present in the wider landscape.

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.*

6.5 There are three statutory designated sites for nature conservation within 2.0 kilometres of the application site (see **Table 6.1**):

Table 6.1 – Statutory designation types and reasons for designation within 2.0 kilometres buffer

Site name	Designation type	Interest features
Huddersfield Narrow Canal (0.68 kilometres east)	Site of Special Scientific Interest (SSSI)	An 18.4 hectare SSSI that is the best example of flowing eutrophic water system in Greater Manchester, and the second best canal, differing from the mesotrophic Hollinwood Branch Canal SSSI, in being less acidic and faster flowing and in having a deeper profile which limits the extent of emergent species. There is an exceptional range of pondweeds Potamogeton spp., including notably perfoliate pondweed, grass-wrack pondweed P. compressus, long-stalked pondweed P. praelongus, fennel pondweed P. pectinatus and hairlike pondweed P. trichoides. Canadian waterweed and Nuttall's waterweed Elodea nuttallii, together with spiked water-milfoil Myriophyllum spicatum and common water-starwort form extensive beds, particularly in the deeper and faster flowing sections. Floating water-plantain Luronium natans, water violet Hottonia palustris, unbranched bur-reed, autumnal water-starwort Callitriche hermaphroditica and water fern Azolla filiculoides are locally abundant in some sections.
Knot Hill (1.3 kilometres southwest)	Local Nature Reserve (LNR)	An 8.72 hectare LNR with a rich mixtures of habitats including open water, marsh, swamp, developing woodland and grassland. The woodlands support a large number of birds such as woodpeckers, owls and nuthatch. The Grasslands and marshes are attractive to butterflies such as orange tip and small copper, while damselflies and dragonflies hunt by the reservoir.
Castle Clough & Cowbury (1.95 kilometres southeast	Local Nature Reserve (LNR)	A 6.84 hectare LNR with heather moor mingles with developing oak and wet willow woodland either side of the brook. The ponds in the valley are now all that remains of once industrial Carrbrook. Great for spotting a variety of woodland birds including woodpeckers and long tailed tits.

6.6 The application site is situated within the impact risk zone (IRZ) of two statutory sites, namely that of the Huddersfield Narrow Canal SSSI which is 0.68 kilometres to the east and the Peak District Moor (South Pennine Moors Phase 1 (SPA) approximately 5.2 kilometres to the east (**see Figure 6.2**). The prospective development is unlikely to have any impacts on any of the designated sites during the construction or operational phases given its small scale, low impact, low duration of works. Where no impact to SSSI's are predicted however, Natural England issue the following advice within their standing advice 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*."

Relevant species data

6.7 The desktop study identified no European Protected Species Mitigation License (EPSML) within a 2.0 kilometres radius. The closest EPSML record was 2.3 kilometres to the southwest and was for the destruction of a resting place for common pipistrelle granted in 2017.

6.8 A search of LERC submitted records held by Tyrer Ecological Consultants Ltd, in this case Greater Manchester Ecology Unit (GMEU), found a single record of a common pipistrelle day roost (four individuals) 0.61 kilometres west of the site.

6.9 In respect of GCN, no standing water bodies exist on site; no standing water bodies exist within a 250-metre buffer zone and the uplands are typically sub-optimal in terms of geographical suitability.

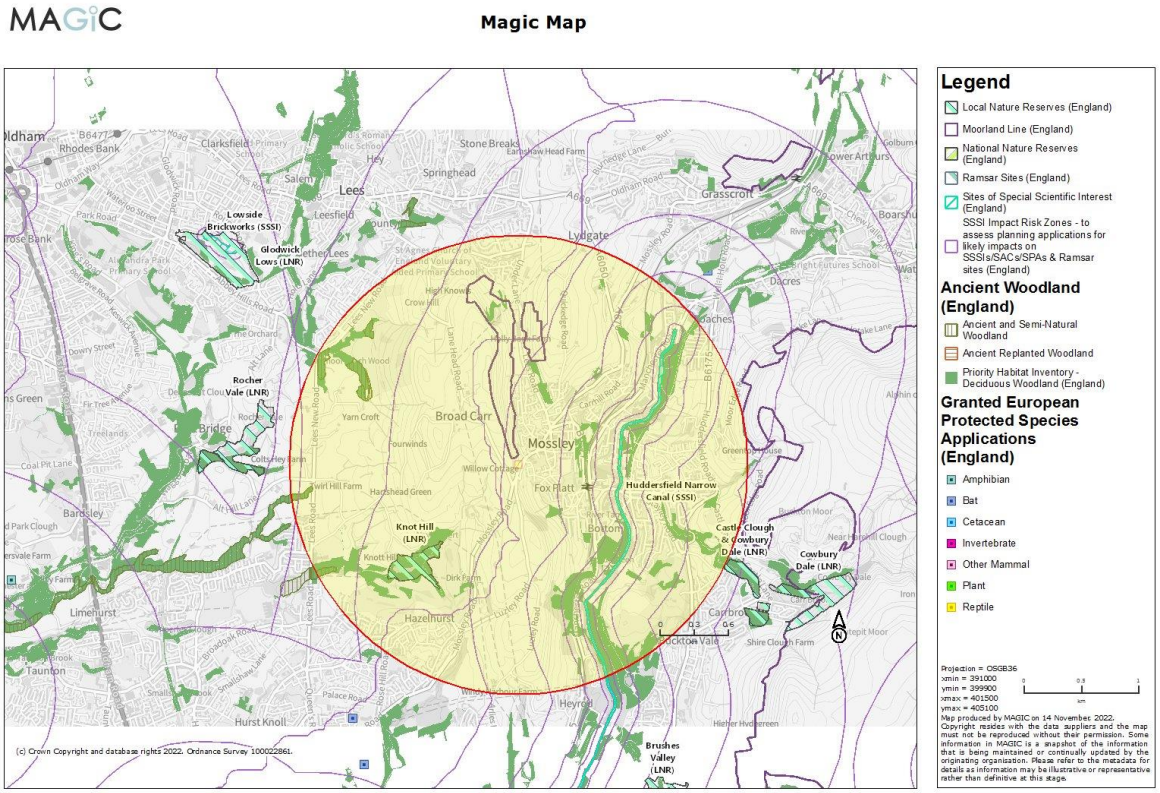

Figure 6.2 – *EPSML and designated site data for the area within 2.0 kilometres of the application site (Source: MAGiC, 2022)*

6.10 A search of Tameside Metropolitan Borough Planning Portal found no existing publicly accessible ecological survey results that have been carried out locally within the previous five years.

7.0 Field Survey Results

7.1 Habitat Survey

7.1.1 See **Table 7.1** (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 - UK Habitat types within the survey area

Broad Habitat	Sec. Codes	Description
u1b5 – building	-	Two ramshackle structures (B1 & B2) were situated within the site boundary. These are described in section 7.3.
h2a - hedgerow	-	A defunct priority hawthorn and dog rose hedge flanks the southern boundary of the site, adjacent to Stamford Road.
u1e – Dry stone wall	67	A dry-stone wall in generally poor condition with areas of degradation (hole in wall) in places, located to the east of the site boundary.
w1g6 – line of trees	-	A mixed community of broadleaf trees run through the north of the site, consisting of sycamore, elder, silver birch and oak.
g4 – modified grassland; bare ground	73	Heavy poaching from horses and individuals has resulted in significantly mulched earth around the entrance of the site and around the buildings resulting in bare mud.
g3c – Other neutral grassland – horse grazed	61	This habitat represents most of the site; the grassland has a slight gradient (sloped to the northeast) with evidence of heavy poaching from horse trampling/ grazing with approximately 25-30% of bare earth. Where grassland is present the sward is represented by perennial rye-grass, yorkshire fog, meadow buttercup, meadow grasses, creeping buttercup, common bent, ribwort plantain and stinging nettle.
G4 – modified grassland; tall herb	16	Areas surrounding the buildings consisting of predominantly stinging nettle.
Target Notes		
1	Stand of INNS (Himalayan balsam *Impatiens glandulifera*) to the south of the site.	
2	Dung heap located to the south of the site.	
3	Individual tree with low bat potential.	

7.2 Habitat

Notable habitat

7.2.1 A defunct hedgerow consisting of hawthorn and dog rose, with a fence within, is present to south of the Site acting as a linear boundary feature adjacent to Stamford Street. The hedgerow is considered to be in poor condition with gaps and homogenous floral characteristics (see **Appendix I; Plate 1**). Hedgerows are listed as a priority UK habitat.

7.2.2 A dry-stone wall was recorded as the linear boundary feature to the west of the Site. Dry-stone walls are important landscape features and provide varied and valuable habitats for a whole range of wildlife, including but not limited to herpetofauna. Dry stone walls offer a varied topography, foraging, commuting and basking opportunities specifically for reptiles and are a good place to find bryophytes.

Notable species

7.2.3 No species of conservation importance were identified at the Site during the site walkover.

Invasive non-native species (INNS)

7.2.4 Himalayan balsam, listed as an Invasive Non-Native Species (INNS) under Schedule 9 (Part II) of the Wildlife & Countryside Act (1981), was located within the red line boundary of the site during the diurnal appraisal (see **Figure 7.1; Plate 3**).

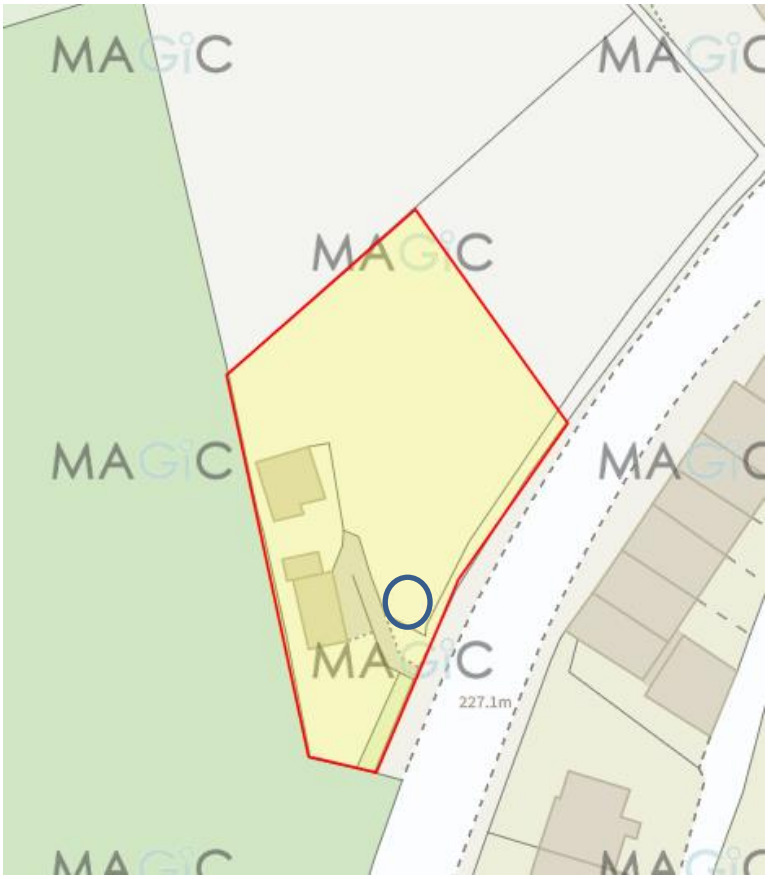

Figure 7.1 – *The approximate location of the INNS (blue circle) within the sites red line boundary (Source: MAGiC, 2022)*

7.3 Bats

7.3.1 Two ramshackle buildings are present within the site boundary, with both understood to be demolished hence were subject to a preliminary roost appraisal.

Figure 7.2 – *Buildings within the site (Source: MAGiC, 2022)*

Building 1 (B1)

7.3.2 B1 is a small ramshackle structure with a mono-pitched aluminium corrugated roof constructed of a breeze block base and wooden panel construction, with an outer bitumen felt layer which covers the majority of the external walls (inclusive of the roof), used as a stable housing horses. The structure is of approximate maximum dimensions of 6.5m x 5m x 2m (Length x Width x Height); whilst the surveyor is not qualified to assess the structural integrity of the building, B1 is assessed to be in aesthetically poor condition given the building materials with wood degradation and poorly fitted bitumen felt (**See Plate 4 – 6**).

7.3.3 Internally the structure is absent of a loft space (vaulted construction) and is well illuminated by natural light ingress from windows and open doors; additionally, the structure is draughty, non-insulated and hence the internal climatic conditions would fluctuate in-line with those of the external environment. Based on the character of the building as described, B1 is considered unsuitable for the breeding requirements of loft-dwelling bats such as Brown Long-eared (*Plecotus auratus*); this is a species that prefers unrestrictive loft spaces with space to fly and consistent thermal qualities; that is not to say B1 could not be used for other purposes such as a feeding roost.

7.3.4 A bitumen 1F underfelt was found to be lining the external features of the building; where present, the bitumen 1F underfelt or other such lining typically improves a buildings value to

bats, notably for crevice-dwelling bats of the *Pipistrellus* genus, whereby the bats roost between linings and the roof/surface cover material provided external access opportunities exist. Conversely, an absence of lining can lower a structures value in the same respect. No evidence of such bats was found; however, this is often the case due to the crevice dwelling nature of these species.

***NB**: The breeding roosts of Pipistrelle bats are proportionally higher in occupied residential dwellings were 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.*

7.3.5 Externally, the bitumen F1 felt covering the walls of the building are predominantly tight fitting in where they overlap, however several minor and non-progressive gaps were noted where the roof felt meets the wall felt resulting in loose fittings and crevices, however, they did not appear to extend to any distance, appeared susceptible to water ingress and largely unsuitable for long term roost provision. Furthermore, the exposure of the building to external weather conditions further reduces the suitability of B1 for roosting bats.

7.3.6 Considering the limited suitability of any potential ingress points, including the draughty and exposed nature of the building, it is duly categorised as offering '**Negligible**' bat roost suitability.

Building 2 (B2)

7.3.7 B2 is a slightly larger ramshackle structure with a mono-pitched aluminium corrugated roof constructed of solely wooden board, with small sections of plastic sheeting and corrugated aluminium panels on the walls. The roof has a layer of bitumen F1 felt, however this appeared to be isolated to the roof. B2, similar to that of B1, is used as a horse stable with additional storage. The structure is of approximate maximum dimensions of 9m x 4m x 2m (Length x Width x Height); whilst the surveyor is not qualified to assess the structural integrity of the building, B2 is assessed to be in aesthetically poor condition given the building materials with clear wood degradation (see **Plate 7- 10**).

7.3.8 Internally the structure is absent of a loft space (vaulted construction) and is well illuminated by natural light ingress from windows and open doors; additionally, the structure is draughty, non-insulated and hence the internal climatic conditions would fluctuate in-line with those of the external environment. Based on the character of the building as described, B2 is considered unsuitable for the breeding requirements of loft-dwelling bats such as Brown Long-eared (*Plecotus auratus*); this is a species that prefers unrestrictive loft spaces with space to fly and consistent thermal qualities.

7.3.9 A bitumen 1F underfelt was found to be lining the roof of the building; where present, the bitumen 1F underfelt or other such underlining typically improves a buildings value to bats, notably for crevice-dwelling bats of the *Pipistrellus* genus, whereby the bats roost between linings and the roof cover material provided external access opportunities exist. Conversely, an absence of roof linings can lower a structures value in the same respect. No evidence of such bats was found; however, this is often the case due to the crevice dwelling nature of these species.

7.3.10 Externally, the wooden, plastic and corrugated panels offered various gaps owing to the ramshackle construction, with likely gaps being present under the bitumen F1 felt where it overlaps with the wall; however, they did not appear to extend to any distance in order to provide viable opportunities for bats to access into roost locations. Furthermore, the exposure of the building to external weather conditions and the degraded quality of the building materials further reduces the suitability of B2 for roosting bats.

7.3.11 Considering the limited suitability of any potential ingress points, including the draughty and exposed nature of the building, it is duly categorised as offering '**Negligible**' bat roost suitability.

Trees

7.3.12 There are a number of trees within the red line boundary, however, only one had potential roosting opportunities in the form of a large open wound down the trunk of an ash tree; likely a result of ash dieback (see **Plate 14**). Consequently, the ash tree was determined to pertain to '**Low**' bat roost suitability. All of the remaining trees were investigated for potential roosting features concerning bats; these were all confirmed to offer no obvious PRF's. All trees present in the immediacy should be considered highly valuable to bats in a local context in that they likely provide valuable foraging/ commuting habitat.

7.4 Breeding Birds

7.4.1 In relation to WCA Schedule 1 specially protected bird species such as Barn owl, no pellets, faecal splashing, feathers, or other evidence of use was found, and the Site is unlikely to host this species for breeding or roost use. The Site is heavily grazed and poached, providing negligible value to hunting raptors such as Barn owl versus surrounding rougher grasslands.

7.4.2 In relation to wider breeding birds, surrounding treelines present likely nesting habitats, whilst the site itself is unhospitable as a means of nesting, including ground nesting birds, given its openness, current management, and presence of horses. Field margins are too exposed to support species such as Grey Partridge versus off site environs.

7.4.3 The following bird species were observed during the survey (see **Table 7.2**):

Table 7.2 – Birds encountered on Site

Species	Scientific Name	Status	Context (where relevant)
Woodpigeon	*Columba palumbus*	Amber	Seen in tree on site
Blackbird	*Turdus merula*	Green	Seen in tree on site
Magpie	*Pica pica*	Green	Seen in tree on site
Carrion Crow	*Corvus corone*	Green	Seen in tree on site

S.41 - a bird listed on section 41 of the Natural Environment Rural Communities Act 2006 (NERC Act)
LBAP - A local biodiversity action plan listed species
Q - Qualifying species of nearby SSSI site(s)
SPEC - a species of conservation concern, Amber or Red, Red being the highest conservation priority

7.5 Other Terrestrial Mammals

Badger & Hedgehog

7.5.1 No field signs were located to suggest the presence of Badgers, including any setts, latrines, pathways, hairs, footprints or feeding signs such as snuffle holes and scratched trees/logs, however, habitat exists on site (and within 50m) to attract this species for breeding - i.e. woodlands/sloped banks that could support a sett.

7.5.2 In respect to Hedgehog this species is likely to be present within the general surrounding locality based on local habitats types and due to the presence of suitable connective environs; they may use the site by night for foraging and commuting. No hedgehogs were seen during the survey though hedgehogs are a nocturnal species more often encountered at night. Piles and areas of general debris in offsite environs, particularly around the base of treelines in leaf litter, could offer a means of shelter provision, including for hibernation.

7.5.3 No evidence of or suitable habitat for other terrestrial mammals including Brown Hare was found to be present within the site boundary, and no impacts are foreseen for such species.

7.6 Herpetofauna

Great crested newt (GCN)

7.6.1 In order to assess risk to GCN, a number of factors need to be considered. These include:

- Site proximity to a potential breeding pond and to any additional ponds,
- Habitat linkage / barriers between potential breeding ponds,
- Nature and extent of available terrestrial habitat (50-100m) around the pond(s),
- Area of habitat loss and permanence of that loss,
- Nature of habitat to be lost and its potential value to GCN as refuge/overwintering habitat.

7.6.2 From the Site visit (in addition to desk study data), it was assumed that there were no waterbodies within the Site. No other standing water bodies are present within a 250-metre radius buffer of the site.

7.6.3 The Site offers negligible terrestrial habitat value for great crested newts; most of the grassland has a closely cropped sward height, is poached regularly throughout and is generally open; dry stone walls offer a means of shelter provision for herpetofauna.

Wider herptiles

7.6.4 Given the surrounding habitats which include moorland and woodland to the west, as described, the application site could be used by generalist, more robust common amphibians including Common Frog (*Rana temporaria*) and Common Toad (*Bufo bufo*) for foraging and commuting, subject to their presence in the landscape, including potential for shelter/ hibernation in the areas of scrub and dry-stone wall.

7.6.5 No reptiles, or field signs of reptiles, were observed. The Site has the potential to support reptiles based on its locality and adjacency to dwarf shrub heath; due to the presence of typical reptile habitat qualities within and surrounding the site boundary, including varied topography and insolation levels, ecotones between shelter and hunting environs, suitable basking, and hibernating areas alongside where the animals could potentially breed; with primary features consisting of the dry-stone wall and an area of manure adjacent to B2 (see **Target Note 2**).

7.6.6 The proximity of woodland features to the west and moorland to the north increases the chance that reptiles could utilize the Site; many species of reptile in the UK are known to favour this habitat due to favourable basking conditions along woodland edges. As reptiles are notoriously difficult to detect even when present in favourable numbers, an absence of reptile records is not always conclusive evidence of absence.

8.0 Conclusions & Recommendations

Habitats & Vegetation

8.1 The proposals are likely to have no anticipated impacts in relation to any priority botanical species or priority community assemblage. A linear area of hedgerow is present to the south of the Site, adjacent to Stamford Street, and is categorised as a priority UK habitat. The hedgerow is considerably homogenous and would benefit from enhancement including the provision and planting of native woody species to improve the condition of the feature. **Appendix III** has suitable planting options to be incorporated into a planting plan. Furthermore, it is recommended that the dry-stone wall adjacent to the western boundary of the site is retained and enhanced by way of repair where fallen; no crevices/holes should be infilled/mortared, however, without pre-commencement checks by a suitably qualified ecologist.

8.2 A single INNS, namely Himalayan balsam, listed under the Schedule 9 (WCA), was recorded within the Site boundary. Whilst it is not illegal to host any species designated as such within a site, it is an offence, under current legislation, 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.

8.3 To prevent incidental spread of these 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

8.4 Based upon the findings of the survey, covered through sections 6.0 – 7.0 of the report and supported by **Appendix I**, the buildings on site are determined to offer '**Negligible'** bat roost suitability in accordance with Bat Conservation Trust - Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd ed. (2016); no further surveys are required in relation to bats, with general enhancement measures recommended in **Appendix II**.

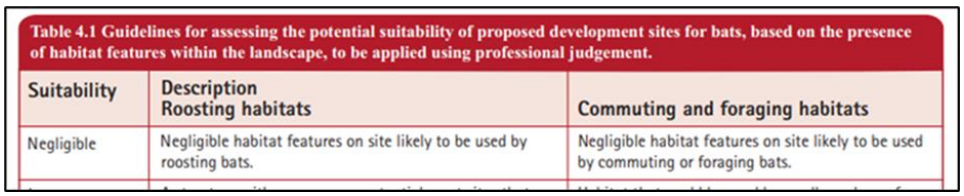

Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

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.

Figure 8.1 – *Bat Conservation Trust extract on Negligible roost potential requirements*

8.5 No further surveys in the form of dusk/dawn emergence / re-entry surveys are recommended, however, despite the buildings pertaining to negligible suitability, due to limited features noted, it is recommended that, purely as a precautionary measure, the proposed demolition of B1 and B2 be completed under supervision by a suitably licenced ecologist, or Ecological Clerk of Works (ECoW). During demolition, the buildings should be subject to inspection at localised areas of limited feature interest, using a torch and/or endoscope prior to the commencement of work, to inspect the space for the unlikely presence of bats or bat droppings; if absent the works can proceed to completion. However, if bat/s is/are located, work will cease, the area will be re-made good and subsequent dusk/dawn observations will need to be completed. A granted European protected species mitigation licence (EPSML) would further be required to legally proceed with the scheme in such an event a bat roost is discovered.

8.6 The single ash tree between B1 and B2 was identified to have PRF's and was duly categorised '**Low**' bat roost suitability. If this tree is to be removed, then a soft felling approach under ECoW supervision which sees limbs cut from the crown downwards, lowered by rope and left

grounded for 72 hours, in accordance with BCT guidance; this should be undertaken in September/ October, to avoid maternity and hibernation seasons when bats are vulnerable to disturbance (BCT, 2018).

8.7 It should be stated that boundary treelines likely provide valuable foraging and commuting habitat and any harsh lighting could affect bats. Installation of harsh artificial lighting as part of any development that exceeds current levels could have a negative impact upon foraging/commuting bats in the landscape, particularly if increased light spillage occurs in areas of that are currently free from illumination. A bat-sensitive lighting plan is recommended as part of the scheme in order to avoid potential impacts to bats that may use the site. Several options to consider have been listed below, though the reader is referred to the Bat Conservation Lighting Guidelines for further information.

Type of lamp (light source): The impact on bats can be minimized by the use of low pressure sodium lamps or high pressure sodium instead of mercury or metal halide lamps where glass glazing is preferred due to its UV filtration characteristics.

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) for further information.

Breeding Birds

8.8 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.

8.9 In relation to common birds, dry stone wall, scrub and trees present could offer small birds nesting habitat, particularly during the breeding bird season.

8.10 In the interests of potential impact avoidance it is recommended that any proposed works which may impact these areas of possible nesting habitat should be undertaken outside of the nesting bird season. The nesting bird season is weather dependent but generally extends between March and September inclusive (peak period March-August). 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. If birds are found nesting any works which may affect them would have to be delayed until the young have fledged and the nest has been abandoned naturally, for example via the

implementation of an appropriate buffer zone (species dependent) around the nest in which no disturbance is permitted until the nest is no longer in use.

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

8.11 Whilst no evidence of Badger, Hedgehog or Brown hare was identified anywhere within the survey boundary, the occasional presence of such species for foraging and commuting purposes is considered possible; it is therefore recommended that a pre-commencement check take place no more than 3 months prior to the start of any remediation works and recommendations be made accordingly.

8.12 Hedgehog may use the Site for foraging and commuting, whilst surrounding environs offer means of localised shelter/hibernation value. The proposals pose no identifiable risk of injury or disturbance impacts, however, a precautionary approach should be applied considering hedgehogs. If in the event any hedgehogs are encountered during the proposed works, they should be left in situ unless they're at an immediate risk of harm – in which case, they should be moved to an area of like-for-like habitat just off site / adjacent to site.

Herpetofauna

GCN

8.13 Given the absence of available waterbodies within the site boundary as well as 250 metre search radial buffer, geographical sub-optimal suitability and poor value terrestrial habitat (outside of the dry stone walls) , it is considered that the likelihood of GCN utilizing the site is negligible, and no further surveys or recommendations are required in relation to this species.

Wider herpetofauna

8.14 There is a reasonable likelihood of Common Frog and Common Toad being present on site. Due to general declines in most British amphibian species in recent years, it is therefore recommended, as a precautionary measure, that an appropriate Method Statement is created by a suitably qualified Ecologist/Ecological Clerk of Works (ECoW), detailing a list of Reasonable Avoidance Measures (RAMS) to prevent risk to this species and wider herpetofauna, as covered below.

8.15 If in the event any amphibians are encountered during any stage of site operations, and they are at risk of harm, site personnel are advised that using wet gloves they should be removed from harm by being carefully handled and removed off the construction site to be placed in nearby like-for-like habitat.

8.16 The site offers limited suitability to reptiles in the form of varied topography within the wider landscape, shelter, hunting and basking; offered primarily by the dry-stone wall and secondarily the manure pile (see Target Note 2). These areas are limited and form a relatively small proportion of suitable habitat in the immediate area. Consideration has been given to the recommendation for reptile surveys, however, given the recommended retention of the dry-stone wall (which is the primary feature of interest for reptiles) it is instead recommended that reptiles be included within the above RAMS.

8.17 General recommended ideas to enhance the site in accordance with the principles of '*Biodiversity Net Gain: Good practice principles for development*' (CIEEM *et. al.*, 2019), are presented in Appendix III.

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Appendix I: Site Photographs

Plate 1 – Area of grazing pasture (neutral grassland) with fence line and defunct hedgerow adjacent to Stamford Street

Plate 2 – Area of grazing pasture to the north (facing south) showing the line of trees

Plate 3 – A stand of Himalayan balsam to the south of the site

Plate 4 – Building 1 (B1) southern face

Plate 5 – Building 1 (B1) eastern face

Plate 6 – Internal layout of B1

Plate 7 – Building 2 (B2) southern face with bramble scrub adjacent

Plate 8 – Building 2 (B2) eastern face

Plate 9 – Another angle of B2 eastern face showing access points

Plate 10 – Northern angle of B2 showing roof

Plate 11 – The western face of B2, showing the dry-stone wall boundary

Plate 12 – An area of scrub adjacent to the southern face of B2, showing the dry-stone wall boundary

Plate 13 – An area of manure adjacent to the dry-stone wall (Target Note 2)

Plate 14 – A single ash with a lightning strike running the height of the trunk

Plate 15 – An area of bramble scrub to the north of the site

Appendix II: Botanical Species List

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

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

Taxon	Common Name	Scientific Name	DAFOR	Notes
Anthophyta (Flowering plants)	Greater Plantain	*Plantago major*	F	
	Meadow Buttercup	*Ranunculus acris*	F	
	Dovesfoot Cranesbill	*Geranium molle*	F	
	Poa *sp.*	*Poa sp.*	F	
	Stinging nettle	*Urtica dioca*	F	
	Pointed spear moss	*Calliergonella cuspidata*	F	
	Goat willow	*Salix caprea*	F	
	Alder	*Alnus glutinosa*	F	
	Bramble	*Rubus fruticosus agg.*	O	
	Cock's-foot	*Dactylis glomerata*	O	
	Common Ragwort	*Senecio jacobaea*	O	
	Creeping Buttercup	*Ranunculus repens*	O	
	Common bent	*Agrostis capillaris*	O	
	Foxglove	*Digitalis purpurea*	O	
	Hawthorn	*Crataegus monogyna*	O	
	Broad-leaf Dock	*Rumex obtusifolius*	O	
	Fox and cub	*Pilosella aurantiaca*	O	
	Ribwort Plantain	*Plantago lanceolata*	O	
	Bittercress sp.	*Cardamine sp.*	O	
	Himalayan balsam	*Impatiens glandulifera*	O	INNS
	White Willow	*Salix alba*	O	
	Red bartsia	*Odontites vernus*	R	
	Dog Rose	*Rosa canina*	R	
	Goat Willow	*Salix caprea*	R	
	Silver Birch	*Betula pendula*	R	
	Sycamore	*Acer pseudoplatanus*	R	
	Elder	*Sambucus nigra*	R	
	Pedunculate oak	*Quercus robur*	R	

Appendix III: Biodiversity Enhancement: General Recommendations

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.

	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	Blackthorn	*Prunus spinosa*	-
	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*	-
Aquatic/marginal plants	Common Water-crowfoot	*Ranunculus aquatilis*	Ponds
	Marsh Marigold	*Caltha palustris*	Marginal vegetation
	Ragged Robin	*Silene flos-cucculi*	Marginal vegetation
	Water Mint	*Mentha aquatica*	Marginal vegetation
	Water-violet	*Hottonia palustris*	Ponds
	White Water-lily	*Nymphaea alba*	Ponds

Enhancing a development site for Breeding Birds

Nesting Birds - Common/Woodland/Garden

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.

See - www.nhbs.com/2h-schwegler-robin-box

Enhancing a development site for 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

Deadwood and other semi-natural provisions

Falling and standing deadwood provides habitat opportunities for a wide range of invertebrates; however, poor execution of enhancement often leads to reduced efficacy. Log piles will generally dry out too quickly or rot too fast depending on their location; it is therefore more effective to place large logs in full sun to allow slow rotting which is favourable for beetles. Some smaller logs in full sun will provide additional habitat for bees and wasps, whilst loose bunds with bare earth also provide abundant opportunities for these and other taxa.


Large, piled logs in shade will rot slowly providing abundant opportunities for beetles, and bunds constructed of sand/earth are valuable to beetles, bees, wasps and other species

Enhancing a development site for Hedgehog

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 Polethylene board (100% recycled plastic)
* Dimensions: Height 26cm x width 23cm
* Entrance Hole: 13cm x 13cm
* Country of Manufacture: England

Appendix IV: UK Habitats Map

Tyrer Ecological Consultants Ltd
Specialists in Protected Species

UK Habitats Map

- Site Boundary
- Target Note
- Scattered tree - deciduous
- h2a - hedgerow (priority habitat)
- w1g6 - line of trees
- u1e 67 - dry stone wall
- g3c - other neutral grassland
- g3c 10 11 - other neutral grassland; scattered scrub, scattered trees
- g4 73 - modified grassland; bare ground
- u1b5 - buildings
- g4 16 - modified grassland; tall herb

Land to the North of Stamford Street

Survey Date: 07/11/2022
Drawn: DB
Date Drawn: 17/11/2022
Size: A3
Scale: 1:250:00

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