# ECOLOGICAL IMPACT ASSESSMENT SCOPING REPORT

**at**

**8 Moor Road**
**Wythenshawe**
**Manchester**
**Greater Manchester**
**M23 9BG**

**Client:**
**Sumo Developments Ltd**

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**18754a/AWe REV 7**

**Date of Report:**
**16/08/2024**



JCA Limited
Arboricultural & Ecological Consultants

# Quality Assurance

| Version | Desktop Survey Completed: | | Site Surveyed: | | Report Completed: | | Reviewed: | |
|---|---|---|---|---|---|---|---|---|
| | Date | Name | Date | Name | Date | Name | Date | Name |
| 07 | 25/09/23 | Rick Westwood | 22/09/2023 | Adam West | 16/08/24 | Adam West | 16/08/24 | James Foster |
| | | | 25/03/2024 | Adam West | | | | |

This report has been prepared and provided in accordance with the *British Standard 42020: Biodiversity – Code of practice for planning and development 2018* and the *CIEEM's Code of Professional Conduct.*

| | |
|---|---|
| **Risk Assessment Completed** |  |
| **Bio-security Procedure Completed** | |
| **Lone Worker Procedure Completed** | |

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# Summary

JCA Limited has been commissioned by **Sumo Developments Ltd** to undertake an Ecological Impact Assessment (EcIA) Scoping of a site located at **8 Moor Road, Wythenshawe, Manchester, Greater Manchester, M23 9BG.** The site is located at Ordnance Survey (OS) National Grid Reference SJ 80416 90011 with nearby postcode M23 9BG.

A desk study and field survey were undertaken in order to assess the potential of the site to support protected habitats and species and species of conservation concern. Recommendations for further survey, avoidance, mitigation and enhancement – where appropriate - have been made and are summarised in Table 1 on the following page and are detailed in full in Chapter 6 of this report.

A desk study and field surveys were undertaken in order to assess how works proposed at the site will impact on protected and priority habitats and species. Recommendations for avoidance, mitigation and enhancement – where appropriate - have been made and are summarised in Table 1 on the following page and are detailed in full in Chapter 6 of this report.

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Table 1: summary of ecological receptors at the site and recommended mitigation.

| Receptor | Potential Risk to Project if No Action Taken | Cause of Impact Description of Effect | Further Survey Required | Mitigation Required |
|---|---|---|---|---|
| Designated sites | | | | |
| Statutorily protected | None | N/A | N/A | N/A |
| Non-statutorily protected | None | N/A | N/A | N/A |
| S41 habitat | None | N/A | N/A | N/A |
| Other habitats | High | Loss of habitat on site. | None | Landscaping plan to incorporate, wherever possible, native species. |
| Protected species | | | | |
| Flora (WCA Sch 8, CHSR Sch 5) | None | N/A | N/A | N/A |
| Invertebrates | None | N/A | N/A | N/A |
| White-clawed crayfish | None | N/A | N/A | N/A |
| Fish | None | N/A | N/A | N/A |
| Great crested newt | None | N/A | N/A | N/A |
| Reptiles | None | N/A | N/A | N/A |
| Birds | High | Disturbance to nesting birds, destruction of active nests. | Nesting bird survey if works take place between 1st Feb and 31st Aug. | Dependant on results of survey. |
| Bats | Moderate | Disturbance to foraging bats | None | Lighting scheme to follow guidance from ILP (2023), bat friendly planting to be provided |
| Badgers | Moderate | Badgers becoming trapped in excavations | None | Excavations to be covered at night or a means of escape provided. |
| Otters | None | N/A | N/A | N/A |
| Water voles | None | N/A | N/A | N/A |
| Other Species e.g. S41 species | Moderate | Potential breach of legislation from killing and injury of individual | None | Pre-clearance inspection by an Ecological Clerk of Works (ECoW). |

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| | | | | |
|---|---|---|---|---|
| | | hedgehogs. Hinderance of free movement of hedgehogs | | Hedgehog holes incorporated into all boundary treatments. |
| Invasive Species (WCA Sch 9) Injurious Weeds (Weeds Act, 1959) | | | | |
| None | N/A | N/A | N/A | N/A |
| Biodiversity Impact | | | | |
| Biodiversity Net Gain (BNG) | High | A net loss of habitat Biodiversity Units (BU) has been calculated as a result of the proposed development. | No | Landscape redesign to include reduced area of developed land; sealed surfaces. This replaced with retained other neutral grassland. |
| Key: S41 habitat/species – habitats and species listed as priority for conservation importance under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006.<br>WCA Sch – Wildlife and Countryside Act 1981 (as amended) Schedule<br>CHSR Sch – Conservation of Habitats and Species Regulations 2017 Schedule | | | | |

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# 1. Introduction

## 1.1 Background

1.1.1 In September 2023, JCA Limited was instructed by **Sumo Developments Ltd** to undertake an Ecological Impact Assessment (EcIA) Scoping of a site located at **8 Moor Road**, **Wythenshawe** hereafter referred to as 'the site' (**Appendix 1)**. The purpose of the survey is to establish a baseline of ecological information and assess whether the proposed works, hereafter referred to as 'the scheme', have the potential to adversely affect any protected or notable habitats or species.

## 1.2 Scheme Description and Location

1.2.1 The site is located at Ordnance Survey (OS) National Grid Reference SJ8041690011, with nearby postcode M23 9BG. The site is bordered to the north by residential areas and Wythenshaw Road, to the west by residential areas, deciduous woodland (which is designated under Section 41 of the NERC Act as a priority habitat) and a fishing pond to the southwest. The site is bordered to the east by residential areas, Moor Road and Wythenshawe Park and Gardens, and to the south by residential areas, woodland and two fishing ponds.

1.2.2 The scheme is the development proposed on this site is to demolish the existing two-story house, garage and remove all the grassland to the rear of the site to build a single building to provide short term accommodation, with soft landscaping to include other neutral grassland, mixed scrub and native hedgerow along a proportion of the northern boundary.

## 1.3 Previous studies

1.3.1 A Preliminary Ecological Assessment (PEA) was conducted by JCA Ltd to inform an Ecological Impact Assessment Report completed 9th February 2021. The PEA identified twelve habitats, with the main habitats on site consisting of buildings, bare ground, amenity grassland, poor semi-improved grassland, scattered broad-leaved trees, scattered scrub, hard standing, tall ruderal, introduced shrubs, defunct poor species hedge, intact species poor hedge and fencing on site. The site was confirmed to support roosting, commuting and foraging bats, nesting and foraging birds and foraging and commuting hedgehogs.

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1.3.2 A Bat Emergence and Re-entry Survey Report was completed by JCA Ltd 12th November 2022. No bats were observed to emerge from or re-enter the surveyed building. There were twenty commuting passes and foraging activities recorded, suggesting a low activity level in this area of the site.

## 1.4 Aims and Objectives

1.4.1 The purpose of the survey is to establish a baseline of ecological information and assess whether the proposed development activities have the potential to adversely affect any protected or notable habitats or species. The following tasks have been undertaken:

- Desktop study – a review of environmental records for the surrounding area to obtain existing information on statutory and non-statutory designated sites of nature conservation interest, and the presence of protected and notable habitats and species within the site and its environs.
- Field surveys – an Extended Phase 1 Habitat survey involving a site visit to record habitat types and dominant vegetation, including any invasive species. During this survey evidence of protected or notable fauna and habitats or habitat capable of supporting protected or notable fauna was recorded.
- Ecological report – an assessment of the potential ecological constraints to the proposed works at the site and recommendations for avoidance, mitigation, and enhancement where appropriate. Locations of any features constituting ecological constraints or of other ecological interest and vegetation recorded on and around the development are included in an accompanying Phase 1 Habitat Map (**Appendix 2**). This report and the maps are supported by photographs (**Appendix 7**) and information regarding current legislation (**Appendix 10**).

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# 2. Methodology

## 2.1 Desktop Study

2.1.1 The desktop study involved conducting database searches for statutory and non-statutory designated sites and European Protected Species (EPS) licensing applications within a 2 km radius of the site. In addition, international sites designated for bats within 30 km of the site were searched for. The baseline conditions are based on a review of existing available information including:

- MAGIC (Multi-Agency Geographical Information for the Countryside) website (to identify statutory designated sites and EPS licences).
- Ordnance Survey mapping (to identify potentially notable habitats including ponds).
- Aerial photography (to identify potentially notable habitats).
- Data search for records of protected/notable species on and within 2 km of the site within the last ten (10) years (exempting bat roosts, of which all records are included) obtained from Greater Manchester Ecology Unit (GMEU), the local environmental records centre for Manchester, along with information for non-statutory wildlife sites.

2.1.2 The records were checked against species listed as priority species under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 and Greater Manchester Ecology Unit (GMEU) Field Surveys.

2.1.3 A UKHab Habitat survey of the site was conducted on 22/09/23. All areas of the site were investigated and areas around the site where access permitted.

2.1.4 The vegetation and habitat types within the site were noted during the survey in accordance with the categories specified for a UKHab Vegetation and Habitat Survey (The UK Habitat Classification, Habitat Definitions Version 1.1, UKHab, 2020). Dominant and abundant plant species were recorded for each habitat present.

2.1.5 The site was inspected for evidence of, and its potential to support, protected or notable species, especially those listed under the Conservation of Habitats and Species (Amendment) (EU Exit)

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Regulations 2019, the Wildlife & Countryside Act (WCA) 1981 (as amended), including those given a higher level of legal protection under the NERC Act 2006 and Countryside & Rights of Way (CRoW) Act 2000, and those listed on the LBAP. The following species were considered:

- Invertebrates (including white-clawed crayfish *Austropotamobius pallipes*.
- Great crested newt *Triturus cristatus* freshwater habitat potential within 500 m of the site.
- Reptile habitat within the site.
- Nesting and foraging habitat for birds within the site.
- Bat roost potential and foraging habitat within the site.
- Badger *Meles meles* setts within 30 m of the site, where accessible.
- Otters *Lutra lutra* and suitable habitat within 30 m of the site, where accessible.
- Water vole Arvicola amphibius habitat within 20 m of the site, where accessible.
- Other notable species.
- Invasive species.

## 2.2 Survey Constraints

2.2.1 To determine presence or likely absence of protected species usually requires multiple visits at suitable times of the year. As a result, the survey undertaken focused on assessing the potential of the site to support species of note, which are of principal importance for the conservation of biodiversity with reference to the National Planning Policy Framework (Ministry of Housing, Communities and Local Government, 2018), especially those given protection under UK wildlife legislation.

2.2.2 The optimum time of year for completing the site survey is between April and September, as many plant species have a seasonal expression in spring and summer only. The survey was undertaken on 22/09/2023.

2.2.3 The survey was conducted in light rain. The rain was not heavy enough to have removed any field signs, such as footprints, which may have been present. The weather at the time of the survey does not pose a constraint on the survey findings.

2.2.4 The details of this report will remain valid for a period of 18 months. If works have not commenced within this period or land use on site

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changes, it is recommended that a new review of the ecological conditions is undertaken.

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# 3. Biodiversity Accounting Assessment

## 3.1 Introduction

3.1.1 Biodiversity is complex and so it is impossible to measure in its entirety. Therefore metrics, which incorporate measures of different biodiversity attributes, are used to provide surrogate measures of overall biodiversity. This report uses the 'Biodiversity Metric 4.0 Small Site Metric (SSM)', which was designed by Natural England (2023) to define the biodiversity impacts and compensation requirements associated with development proposals. For a Site to qualify for the use of the SSM, as opposed to the Natural England's main Biodiversity Metric 4.0, the site must meet one of the following criteria;

- For residential developments, where fewer than 10 residential units on a site area less than 1 hectare (ha).
- For residential development, when the number of residential units is not known, and the site area is less than 0.5 ha.
- For non-residential developments, where the floor space to be created is less than 1000 $m^2$, or where the site area is less than 1 ha.

3.1.2 The metric works by providing a comparative measure of each habitat on-Site in biodiversity units (BU) by multiplying its area (square meters), distinctiveness (habitat type) and current condition (quality). The relative impacts (habitat loss) of the development, taking into account any additional on-Site habitat creation or enhancement, can then be calculated to determine if a measurable biodiversity net gain will be achieved on-Site. If a measurable net gain is unable to be achieved on-Site, then the process of biodiversity offsetting must be undertaken.

3.1.3 Biodiversity offsets are conservation activities designed to deliver biodiversity benefits in compensation for residual losses, in a measurable way. Biodiversity offsetting is distinguished from other forms of compensation by the requirement for measurable outcomes. This is achieved by quantifying net biodiversity impacts caused by development; using the same metric to assess direct and indirect negative impacts to habitats and the value of any on-Site compensation, to set the framework of off-site compensation (offset) requirements and the biodiversity net gain generated by these offsets. Biodiversity offsetting ensures that off-site compensation proposed is both proportionate to the development concerned and that a measurable net gain for biodiversity can be achieved.

3.1.4 Biodiversity offsetting, like other forms of compensation, is the last step of the mitigation hierarchy (first avoid, then reduce, and finally,

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compensate) and is applied as a last resort to otherwise policy-compliant development proposals. 'Offsetting' – i.e. creating or restoring new wildlife habitat in a measurable way and in a different place to where it was lost. Where offsetting has been deemed necessary within the Biodiversity Metric 4.0 SSM, the subsequent offsetting calculation must be undertaken using the main Biodiversity Metric 4.0 calculation. This ignoring the qualifying rules for the use of the SSM.

3.1.5 In addition to providing a mechanism for quantifiable compensation and net gain, biodiversity offsets provide reliable biodiversity outcomes as they are long-term (30 years), monitored and enforceable with adaptable management plans for optimised success.

## 3.2 Biodiversity Net Gain Principles

3.2.1 Biodiversity Net Gain: Good Practice Principles for Development published by CIRIA et. al (2016) states that delivering biodiversity net gain goes beyond balancing relative gains and losses. It also involves doing everything to avoid biodiversity losses in the first instance. The application of the DEFRA metric detailed in this report supports developments to adopt this approach by:

a. Providing a habitat balance sheet which can be used to identify those habitats with the greatest value and subsequently those with the greatest impacts if lost;

b. Supporting and incentivising the mitigation hierarchy by quantifying the benefits of avoiding and mitigating impacts on high value features;

c. Promoting the value of biodiversity enhancements and demonstrating the potential for additionality on retained habitats;

d. Providing a balance of losses, enhancements or on-Site compensation to determine if a measure net gain contribution can be achieved;

e. Providing transparent, robust and credible evidence to help inform the best possible Site options for biodiversity; and,

f. Ensuring that any residual off-Site compensation required (e.g. through biodiversity offsetting) is proportionate to the impacts and can secure a measurable net gain contribution for biodiversity overall.

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## 3.3 Biodiversity Offsetting Standards

3.3.1 Good practice standards for biodiversity offsetting are set out by the Business and Biodiversity Offsets Programme (BBOP, 2012). These standards inform the approach for selection and development of suitable Offset Sites and projects. Of these standards, the following provide the most relevant UK framework for the preliminary offset site search:

a. The proposed offset site should be identified as suitable for the creation and/or enhancement of a target habitat within the vicinity of where the impact occurs;

b. The site must be available and managed for a minimum specified term (30 years in this instance).

c. The landowner must agree to an enforceable delivery mechanism to secure the long-term management.

d. The site must be available for monitoring to ensure appropriate management is being undertaken and to report biodiversity progress back to the local planning authority.

3.3.2 Further standards, with regards to offset site surveys and ensuring that appropriate target habitats and units can be achieved, will form part of the detailed site search that will proceed the preliminary site search.

3.3.3 In addition to biodiversity net gains achieved on-Site, off-Site enhancements can also achieve positive outcomes for nature in the local area.

## 3.4 National Policy and Guidance

3.4.1 Specific habitats and species of relevance to the Site receive legal protection in the United Kingdom under various pieces of policy and legislation, including:

- The Environment Act 2021 mandates that all planning applications will be required to demonstrate how a development will enhance biodiversity and protect habitats from November 2023. This is to be achieved through a measurable 10% Biodiversity Net Gain (BNG), in association with development through the use of the most up to date Defra Metric (currently Defra 4.0 Metric);

- National Planning Policy Framework ('NPPF', as revised 2021) sets out how planning policies and decisions should contribute to and enhance

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the natural and local environment through amongst other things, ensuring BNG through development and protect ecological important sites and networks;

- The Conservation of Habitats and Species Regulations 2017 (as amended) details the regulations for the protection of European Protected Habitat and Species. Such European Protected Species (EPS) include all species of bats, great crested newt *Triturus cristatus*, dormouse *Muscardinus avellanarius*, and European otter *Lutra lutra*, amongst others;

- The Wildlife and Countryside Act ('WCA') 1981 (as amended) covers the legislation for endangered species in England and the framework for the designation of Sites of Special Scientific Interest (SSSIs);

- The Countryside and Rights of Way ('CRoW') Act 2000 reinforces the wildlife legislation listed in the WCA and places a duty of government departments to consider biodiversity, and provides governmental department powers for the protection and maintenance of SSSIs;

- The Natural Environment and Rural Communities Act ('NERC') 2006 places a duty upon local authorities to promote and enhance biodiversity in all their functions. Specifically, habitats and species of principal importance to the conservation of biodiversity in regards to the planning process;

- The Hedgerow Regulations 1997 provides protection by prohibiting the destruction or damage to important countryside hedges; and

- The Protection of Badgers Act 1992 includes the protected of badgers under the act and that it is unlawful to wilfully kill, injure, take, possess or cruelly ill-treat badgers or attempt to do so.

3.4.2 Where relevant, this appraisal takes account of the legislative protection afforded to specific habitats and species.

## 3.5 Regional Policy and Guidance

Biodiversity Action Plan (BAP) for Greater Manchester.

3.5.1 The BAP for Greater Manchester (Greater Manchester Record Centre 2009) concentrates on species and habitats that had national action plans produced or are of local conservation concern These include grasslands, canals reedbeds, bats, black redstart *Phoenicurus ochruros* and water vole *Arvicola amphibius* (Appendix 5).

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## 3.6 Local Policy and Guidance

Manchester Core Strategy – (Manchester City Council, Adopted July 2012)

3.6.1 The Manchester Core Strategy 2012 - 2027 sets out the council's policies and proposals for land use within the district to 2027. Policy EN 15 of the Strategy is therefore relevant to the Proposed Development.

3.6.2 Policy EN 15: The Council will seek to maintain or enhance sites of biodiversity and geological value throughout the City. Particular consideration will be given to:

a. 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);

b. 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);

c. protected and priority species, as listed in the Manchester Biodiversity Strategy and included in the Greater Manchester Biodiversity Action Plan (GM BAP);

d. sites that are recognised for their geological importance;

e. 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.

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, with reference to:

a. the Manchester Biodiversity Strategy, which provides further details of priority habitats within Manchester and opportunities for biodiversity enhancement including corridors such as the Mersey, Medlock and Irk river valleys, the canals and disused railway lines and areas of managed greenspace particularly in parks;

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b. the Green Infrastructure Framework for Greater Manchester, which encompasses an ecological framework that seeks to guide and inform habitat creation and repair, including identifying large 'biodiversity opportunity areas' including the Moston Brook Corridor and Nutsford Vale;

c. the Open Space, Sport & Recreation Study, which identifies areas where there is a deficit of natural and semi-natural greenspace, opportunities for green corridors and other linkages;

d. Manchester's Climate Change Action Plan;

e. the Strategic Flood Risk Assessment (SFRA) for Manchester;

f. the Habitats Regulations Assessment (HRA) for Manchester, which gives detailed consideration to Special Areas of Conservation (SACs), including the Rochdale Canal SAC just outside the district boundary;

g. the River Basin Management Plan for the North West;

h. the Manchester Tree Strategy.

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.

Development should wherever possible seek to maintain, enhance or restore existing geology.

## 3.7 Baseline Data

3.7.1 A baseline analysis of the existing habitats onsite was carried out from the information gathered during the site's survey and condition assessment.

3.7.2 To undertake the SSM Biodiversity Metric 4.0 calculations, the following information was recorded for each habitat parcel and/or linear feature:

- Habitat type;
- Area/Length ($m^2$/m);
- Habitat condition;
- Strategic significance; and

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- Whether that habitat will be lost, retained, enhanced, succeeded and/or created, and at what scale.

3.7.3 The habitat map for the Site was digitised and interpreted using QGIS Version 3.32.1 to calculate habitat area.

## 3.8 Impact Assessment

3.8.1 The existing baseline habitat plan for the site was overlain with the 8 Moor Road Proposed Site Plan of the Proposed Development using GIS software to provide an area (square meters) of temporary and permanent habitat loss.

3.8.2 The area of any retained/enhanced or created habitats proposed as part of the development was also mapped to provide an area (meters) (or length (m) for linear features) of the onsite compensation proposals being provided. An estimate of future condition, time until establishment and the likelihood of success was then calculated using landscaping data provided by the client and professional judgement).

## 3.9 Habitat Creation and Enhancement

3.9.1 The area of any retained/enhanced or created habitats proposed on-site as part of the Proposed Development was mapped using the 8 Moor Road Proposed Site Plan of the final development, to provide an area (square meters) (or length (m) for linear features) estimate of on-Site compensation provided. This includes areas of developed land, which are assigned a very low (or null) value, notably, areas of buildings and/or roads.

3.9.2 Condition and strategic significance for each habitat or linear feature were projected using available ecological data or professional opinion about the likely value.

## 3.10 Residual Effects

3.10.1 The residual effects of the Proposed Development scheme were calculated using the SSM Biodiversity Metric 4.0 Calculator Tool. This subtracts the pre-development baseline values from that of the post-development values to determine the change in overall habitat value for the Site, taking into account any habitat trading.

3.10.2 Habitat trading is where the loss of a habitat must be compensated for through the creation or restoration of areas of equivalent or greater

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distinctiveness value. Guidance by Defra is that the loss of high distinctiveness areas, such as Habitats of Principal Importance (HPI, NERC Act, S.41), require compensation in a like-for-like manner (creation or restoration of habitat of the same habitat classification as that impacted). Within the Biodiversity Metric 'trading up' (where compensation through creation of a higher distinctiveness habitat) can occur, however, 'trading down' (compensation through creation of lower distinctiveness habitats) is not permitted. Therefore, if present, despite gains in lower distinctiveness habitats, these will not reduce the net gain requirement for the development. This also applies to the different habitat features i.e. habitats, hedgerows and rivers and streams. Hedgerow creation gains will not reduce net gain requirements for either rivers and streams or habitats.

3.10.3 Where the resulting biodiversity balance is negative, a residual net loss of biodiversity is recorded. Where the balance is positive a residual net gain of biodiversity is recorded.

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# 4. Baseline Ecological Conditions

## 4.1 Statutory Designated Sites

4.1.1 The MAGIC website revealed no internationally designated sites within 2 km of the site.

4.1.2 The MAGIC website revealed a nationally designated site within 2km of the site. Wythenshawe Park Local Nature Reserve (LNR) is located 290m to the east of the site. Wythenshawe Park LNR contains 13 woodlands, with broadleaved woodland (a Biodiversity Priority Habitat), open grassland and wildflower meadows, home to a variety of species, plants, and wildlife. In addition, there is a community farm and horticultural centre on site.

## 4.2 Non-statutory Designated Sites

4.2.1 Records received from GMEU revealed 4 non-statutory designated sites within 2km of the site, detailed in Table 4 below.

4.2.2 **Table 4** Non-statutory designated sites within 2 km of the site, returned from LERC.

| Site Name | Distance (m) and Direction from Site | Reasons for Designation |
|---|---|---|
| Nan Nook Wood SBI | 381m E | Native mature woodland of sycamore *Acer pseudoplatanus*, beech *Fagus sylvatica*, alder *Alnus glutinosa* and willow *Salix* sp., There is a network of small ponds on site. |
| Princess Spinny SBI | 1402 SE | Has a mosaic of habitats of mature broadleaf woodlands, scrub and marshy sections which has great biodiversity for birds, invertebrates, and fungi. |
| Gib Lane Wood SBI | 1807m SE | Large established woodland with a broad range of species. It has a rich diversity of flora, main species are oak *Quercus* sp., ash *Fraxinus excelsior*, alder, beech, larch *Latrix* |

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| | | |
|---|---|---|
| | | sp., and sycamore along with Corsican pine *Pinus nigra*. |
| Blackcarr Wood & Baguley Bottoms SBI | 1809 SE | 5.7 hectares of mainly broadleaf woodland with oak, silver birch *Betula pendula* and crack willow *Salix fragilis*. |
| Key:<br>SBI – Site of Biological Importance | | |

## 4.3 Habitats

### 4.3.1 g4 – Other neutral grassland

Other neutral grassland occupies the majority of the site. The sward contains common bent *Agrostis capillaris*, Yorkshire fog *Holcus lanatus* and common couch *Elymus repens* grasses. Other plants present include bindweed *Convolvulus* sp., nettle *Urtica dioica*, bramble *Rubus fruticosus*, broad-leaved dock *Rumex obtusifolius*, common dandelion *Taraxacum officinale*, male fern *Dryopteris filix-mas*, common comfrey *Symphytum officinale*, wood horsetail *Equisetum sylvaticum*, broad-leaved plantain *Plantago major*, goldenrod *Solidago* sp., and willowherb *Epilobium* sp..

### 4.3.2 g4 – 81 Ruderal or Ephemeral

Ruderal vegetation, in the form of common comfrey, bindweed and nettle dominates an area of the grassland in the southwest corner of the site.

### 4.3.3 w1, 33 – Line of trees

A line of trees is present on the western boundary of the site. The line of trees is dominated by hawthorn *Crateagus monogyna* with a small number of wild privet *Ligustrum vulgare* also present.

### 4.3.4 h2a – Native hedgerow

Two native hedgerows are present on the site boundary. The hedgerow in the south west corner the site comprises hawthorn, with bindweed and bramble present throughout.

A wild privet hedge is present on the eastern boundary.

### 4.3.5 h3h – Mixed scrub

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A patch of mixed scrub is present in the southwest corner of the site. The scrub comprises buddlia *Buddleja davidii* and wild privet.

#### 4.3.6 u1 – Built-up areas and gardens

In the east of the site is an area occupied by a residential building, parking area and rear garden which contains a wooden shed. This area is in separate, private ownership and was not assessed during the survey.

#### 4.3.7 u1b – Developed land; sealed surface

An area of hardstanding is present in the eastern half of the site. This was a driveway leading to a garage which is no longer present. The hard standing comprises the driveway and the concrete base upon which the garage once stood.

#### 4.3.8 U1c – Artificial unvegetated – unsealed surface

A parcel of land in the northeast corner of the site comprises loose stone chippings.

## 4.4 Protected and Notable Species

#### 4.4.1 European Protected Species (EPS) Licence Applications

The MAGIC website revealed 1 EPS licence application within 2km of the site; a licence granted in 06/04/11 and ending in 31/03/2013 to allow for the destruction of a resting place used by bats. Licence reference: EPSM2011-2983.

#### 4.4.2 Invertebrates (including white-clawed crayfish)

2 records of grey dagger *Acronicta psi*, a S41 and UKBAP species, were returned by GMEU. The records were made in 2013, 760m from the site.

2 records of green-brindled crescent *Allophyes oxyacanthae,* a S41 and UKBAP species, were returned by GMEU. Both records date from 2013, at 750m from the site.

1 record of small heath *Coenonympha pamphilus,* a S41 and UKBAP species, was returned by GMEU. The record was made in 2013, 1834m from the site.

1 record of small pheonix *Ecliptopera silaceata,* a S41 and UKBAP species, was returned by GMEU. The record was made in 2013, 760m from the site.

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5 records of cinnabar Tyria jacobaeae, a S41 and UKBAP species, were returned by GMEU. The latest record was made in 2021. The closest record was documented 1870m from the site.

2 records of dot moth *Melanchra persicariae,* a S41 and UKBAP species, were returned by GMEU. The records were made in 2013, 760m from the site.

1 record of white-letter hairstreak *Satyrium w-album,* a WCA-S5, S41 and UKBAP species, was returned by GMEU. The record was made in 2018, 1864m from the site

1 record of mullein wave *Scopula margine punctata,* a S41 and UKBAP species, was returned by GMEU. The record was made in 2013, 760m from the site.

1 record of buff ermine *Spilarctia luteum,* a S41 and UKBAP species, was retuned by GMEU. The record was made in 2013, 760m from the site.

2 records of white ermine *Spilosoma lubricipeda,* an S41 and UKBAP species, were returned by GMEU. The records were made in 2014, 1415m from the site.

No invertebrates were observed during the survey and the flora found on site is likely to support only an assemblage of common invertebrate species. Invertebrates will, therefore, not be mentioned further in this report.

#### 4.4.3 Fish

No fish recorded were retuned by GMEU. The site does not contain any aquatic habitat. Fish will, therefore, not be mentioned further in this report.

#### 4.4.4 Amphibians

No amphibian records were returned by Greater Manchester Ecology Unit. The site is connected to a large patch of woodland containing ponds located off the site's southwest corner. The hedgerows and tussocky sward on site have the potential to support sheltering and foraging amphibians in the terrestrial phase of their life cycle.

#### 4.4.5 Reptiles

No reptile records were returned by GMEU. The site is considered too small and lacking in the mosaic of foraging and basking habitats required to sustain a reptile population. Reptiles will, therefore, not be mentioned further in this report.

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### 4.4.6 Birds

1 record of tree pipit *Alauda trivialis*, an S41 and UKBAP species, was returned by GMEU. The record was made in 2014, 339m from the site.

1 record of linnet *Linaria cannabina*, an S41 and UKBAP species, was returned by GMEU. The record was made in 2014, 1511m from the site.

75 records of house sparrow *Passer domesticus,* an S41 and UKBAP species, were returned from GMEU. The most recent was recorded in 2022, the closest record was made 353m from the site.

1 record of peregrine falcon *Peregrinus,* a WCA-S1 and WCA-S4 species, was returned by GMEU. The record was made in 2019, 416m from the site.

93 records of dunnock *Prunella modularis,* a WCA-S3, S41 and UKBAP were returned from GMEU. The most recent record was made in 2022, 299m from the site.

24 records of bullfinch *Pyrrhula pyrrhula*, an S41 and UKBAP species, were returned by GMEU. The most recent record was made in 2022, the closest record was made 339m from the site.

84 records of starling *Sturnus vulgaris,* a WCA-S3, and S41, UKBAP species, were returned by GMEU. The most recent record was made in 2022, the closest record was recorded 609m from the site.

71 records of song thrush *Turdus philomelos,* WCA-S3, S41 and UKBAP species, were returned by GMEU. The most recent record was made in 2022, the closest record was made 249m from the site.

The hedgerows on site are suitable to support nesting birds. Ground nesting birds are likely absent due to the risk of predation from domestic pets as the site is in an urban environment. The site provides only low potential for foraging birds.

### 4.4.7 Bats

2 records of unidentified Myotis myotis *sp.*, an EPS species, were returned by GMEU. The most recent date was recorded in 2019, the closest record was recorded 1489m from the site.

23 records of noctule *Nyctalus noctule,* an EPS, S41 and LBAP species, were returned from GMEU. The most recent record was made in 2021, the closest record was made 993m from the site.

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1 record of brown long eared bat *Plectus auratus,* an EPS, S41 and LBAP species, was returned from GMEU. The record was made in 2022, 1743m from the site.

67 records of common pipistrelle *Pipistrellus pipistrellus*, an EPS and LBAP species, were returned by GMEU. The most recent record was made in 2022, the closest record was recorded 384m from the site.

13 records of unidentified pipistrelle *Pipistrellus pipistrellus* sp., an EPS and LBAP species, were returned from GMEU. The most recent record was made in 2021, 1283m from the site.

12 records of soprano pipistrelle *Pipistrellus pygmaeus,* an EPS, S41 and LBAP species, were returned by GMEU. The most recent record was made in 2021, the closest record was made 1021m from the site.

There are no built structures within the site and no trees were identified as possessing features suitable for roosting bats. The bat surveys carried out in 2022 found only low levels of foraging and commuting activity on site.

#### 4.4.8 Badgers

No records of badgers were retuned by GMEU. The woodland to the southwest of the site provides suitable habitat for badger sett establishment and ample foraging opportunities for this species. While no evidence for the presence of badgers was observed on site, it is possible that badgers may occasionally commute onto the site from the adjacent woodland.

#### 4.4.9 Otters

No otter records were returned by GMEU. There is no habitat suitable for otters on or within influencing distance of the site. Otters will, therefore, not be mentioned further in this report.

#### 4.4.10 Water Voles

No water vole records were returned by GMEU. There is no habitat suitable for water voles on or within influencing distance of the site. Water voles will, therefore, not be mentioned further in this report.

#### 4.4.11 Other Notable Species

No other records of other notable species were returned by GMEU. It is likely that hedgehogs are present in the woodland to the southwest of the site and will utilise the site for foraging.

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A single fox was observed on site during the survey. The fox was seen in the southwest corner of the site and, upon being seen, immediately vacated the site, moving into the adjacent woodland. No evidence for a fox den was found on site. Foxes are only legally protected from deliberate acts of cruelty. The impacts of the proposed development will not lead to a breach of legislation pertaining to foxes. This species will, therefore, not be mentioned further in this report.

4.4.12 Invasive Species

No records of invasive species were returned by GMEU. No evidence for the presence of invasive species was found during the survey.

4.4.13 **Table 5** below summarises all important or legally protected ecological features identified within their respective zones of influence, along with their geographic context of importance and/or protection status:

**Table 5** Summary of important ecological features and their geographic/legal context

| Ecological Feature | Geographic Context of Importance and/or Protection Status |
|---|---|
| LNR | National |
| SBI | County |
| Amphibians | Local |
| Nesting birds | Active nests protected from destruction under WCA |
| Bats | Protected Species (The Wildlife and Countryside Act 1981 (as amended); The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 |
| Badgers | Protection of Badgers Act 1992. |
| Hedgehogs | Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) |

## 4.5 Biodiversity Metric Calculation

4.5.1 The assessment was carried out by JCA Limited using the ecological data gathered during the Site's ecological assessment survey carried out on 20/09/23. Existing on-Site habitats can be found in Appendix 1.

## 4.6 Existing Site Value

4.6.1 The existing biodiversity value for each habitat, together with the cumulative value of all habitats is provided in Table 6 and for hedgerow units in Table 7. Full details as to the Condition Assessment criteria for each habitat and hedgerow can be found in Appendix 6, Tables 6.1 - 6.4.

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**Table 6**: Baseline habitats on site and their ecological value as categorised by the SSM Biodiversity Metric 4.0 calculator.

| SSM Biodiversity Metric 4.0 Habitat Type | Total Area on Site ($m^2$) | Distinctiveness | Condition | Strategic Significance | Ecological Baseline Habitat Unit |
|---|---|---|---|---|---|
| Mixed scrub | 11 | Medium | Moderate | Area/compensation not in local strategy/ no local strategy | 0.01 |
| Vegetated garden | 267 | Low | Condition Assessment N/A | Area/compensation not in local strategy/ no local strategy | 0.05 |
| Other neutral grassland | 915 | Medium | Moderate | Area/compensation not in local strategy/ no local strategy | 0.73 |
| Developed land; sealed surface | 231 | V.Low | N/A - Other | Area/compensation not in local strategy/ no local strategy | 0.00 |
| **Total** | **1424** | **–** | **–** | **–** | **0.7942** |

4.6.2 The existing biodiversity value for each hedgerow, together with the cumulative value of all hedgerows is provided in Table 7.

**Table 7**: Baseline hedgerows on site and their ecological value as categorised by the SSM Biodiversity Metric 4.0 calculator.

| SSM Biodiversity Metric 4.0 Habitat Type | Total Length on Site (m) | Distinctiveness | Condition | Strategic Significance | Ecological Baseline Habitat Unit |
|---|---|---|---|---|---|
| Native hedgerow | 11.00 | Low | Moderate | Area/compensation not in local strategy/ no local strategy | 0.0440 |
| Native | 14.00 | Low | Moderate | Area/compensation not in local | 0.0560 |

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| SSM Biodiversity Metric 4.0 Habitat Type | Total Length on Site (m) | Distinctiveness | Condition | Strategic Significance | Ecological Baseline Habitat Unit |
|---|---|---|---|---|---|
| hedgerow | | | | strategy/ no local strategy | |
| Native hedgerow | 8.00 | Low | Moderate | Area/compensation not in local strategy/ no local strategy | 0.0320 |
| Line of trees | 16.00 | Low | Moderate | Area/compensation not in local strategy/ no local strategy | 0.0640 |
| **Total** | **49.00** | **–** | **–** | **–** | **0.1960** |

4.6.3 To ensure a 10% net gain in biodiversity is achieved as part of the Proposed Development the following measures can be employed:

- Habitat retention; and/or
- Habitat enhancement; and/or
- Habitat creation.

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# 5. Proposed Development Impact Assessment

## 5.1 Description of the Proposed Development

5.1.1 The Proposed Development involves the demolition of the existing two-story house, garage and the removal of the grassland to the rear of the Site to build a single building to provide short term accommodation associated parking and soft landscaping to include other neutral grassland, mixed scrub and native species hedgerow.

5.1.2 The Proposed Development will see the removal of the majority of the on-Site habitats with the exception of sections of the existing hedgerows, line of trees and an area of mixed scrub to facilitate the development.

## 5.2 Habitats to be Retained

5.2.1 Any development should apply the Mitigation Hierarchy (British Standards Institution (BSI), 2013; shown below in Figure 1).

5.2.2 Development proposals should first seek to **avoid** impacts by retaining habitats. Second, development proposals should look to **minimise** the impact by producing plans that are designed to limit habitat disturbance, damage, and loss, thereby mitigating against any unavoidable impacts. Third, proposals should look to **restore** any damaged or degraded habitats. Then, only as a last resort should proposals **compensate** for unavoidable residual impacts to damaged or lost habitats that remain after avoidance and mitigation measures.

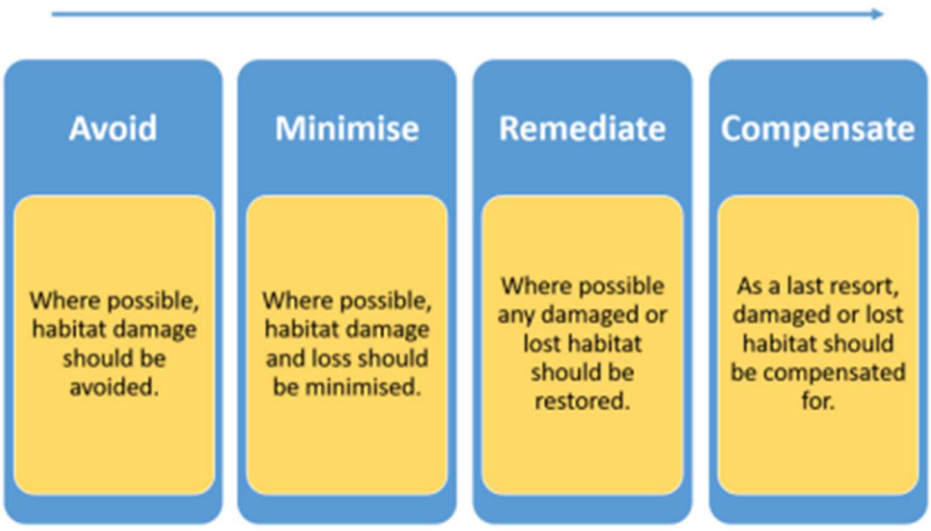



**Figure 1:** The mitigation hierarchy (BSI, 2013)

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## 5.3 Habitats to be Lost

5.3.1 The other neutral grassland habitat is classified as 'medium' distinctiveness, and under current development plans is to be lost entirely, therefore it is deemed a major loss.

5.3.2 A small section of native species-rich hedgerow is classified as a 'medium' distinctiveness hedgerow, under the current development plans a small section of hedgerow along the southern boundary is to be lost. This deemed as a minimal loss, as the hedgerow is to be replaced to an extent greater than what is to be removed.

## 5.4 Overall Impacts

5.4.1 The retention, enhancement and loss of habitats as a result of the Proposed Development are quantified in Table 8.

5.4.2 The results of the metric calculation indicates that a total of 0.7854 BU for habitats are to be lost as a result of the Proposed Development, with 0.01 BU retained and 0.00 BU generated through habitat enhancement (Table 8).

**Table 8:** Summary value of baseline habitat biodiversity value through retention, loss and enhancement

| SSM Biodiversity Metric 4.0 Habitat | Retained | | Enhanced | | Lost | |
|---|---|---|---|---|---|---|
| | Area ($m^2$) | Unit | Area ($m^2$) | Unit | Area ($m^2$) | Unit |
| Mixed scrub | 11.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.000 |
| Vegetated garden | 0.00 | 0.00 | 0.00 | 0.00 | 267.00 | 0.053 |
| Other neutral grassland | 0.00 | 0.00 | 0.00 | 0.00 | 915.00 | 0.732 |
| Developed land; sealed surface | 0.00 | 0.00 | 0.00 | 0.00 | 231.00 | 0.000 |
| **Total** | **11.00** | **0.01** | **0.00** | **0.00** | **1413.00** | **0.7854** |

5.4.3 The loss, retention and enhancement of hedgerows as a result of the Proposed Development are quantified in Table 9.

5.4.4 The results of the metric calculation indicates that a total of 0.04 BU for hedgerows are to be lost as a result of the Proposed Development, with

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0.888 BU retained and 0.00 BU generated through habitat enhancement (Table 9).

**Table 9:** Summary value of baseline hedgerow biodiversity value through retention, creation and enhancement

| SSM Biodiversity Metric 4.0 Habitat | Retained | | Enhanced | | Lost | |
|---|---|---|---|---|---|---|
| | Length (m) | Unit | Length (m) | Unit | Length (m) | Unit |
| Native hedgerow | 11.00 | 0.0440 | 0.00 | 0.00 | 0.00 | 0.0000 |
| Native hedgerow | 14.00 | 0.0560 | 0.00 | 0.00 | 7.00 | 0.0280 |
| Native hedgerow | 8.00 | 0.0320 | 0.00 | 0.00 | 4.00 | 0.0160 |
| Line of trees | 16.00 | 0.0640 | 0.00 | 0.00 | 0.00 | 0.0000 |
| **Total** | **49.00** | **0.1960** | **0.00** | **0.00** | **11.00** | **0.0440** |

## 5.5 Proposed Habitat Creation

5.5.1 It is proposed that the following habitats be created as part of the Proposed Development:

- Developed land; sealed surface represented on the plans by the property, parking and access road, and
- Modified grassland represented on the plans by the lawned areas to the rear of the property and surrounding car parking areas.
- Other neutral grassland represented on the plans by species rich grassland to the north of the Site.
- Mixed scrub represented on the plans by perennial planting scattered throughout the Site.
- Eight urban trees along the southern and northern Site boundary.

5.5.2 The proposed habitats on-Site can be found within Appendix 2.

5.5.3 Table 10 below summarises the value of all habitats that are to be created as part of the Proposed Development.

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5.5.4 In total, +0.3379 BU for habitats are to be created within the Proposed Development.

**Table 10:** Summary value of on-Site habitat proposals.

| SSM Biodiversity Metric 4.0 Target Habitat Type | Area on Site ($m^2$) | Distinctiveness | Target Condition | Strategic Significance | Biodiversity Unit Value |
|---|---|---|---|---|---|
| Modified grassland | 239 | Low | Moderate | Area/compensation not in local strategy/ no local strategy | 0.0829 |
| Developed land; sealed surface | 882 | V.Low | N/A - Other | Area/compensation not in local strategy/ no local strategy | 0.0000 |
| Urban/rural trees | 326 | Medium | Moderate | Area/compensation not in local strategy/ no local strategy | 0.0995 |
| Other neutral grassland | 158 | Medium | Moderate | Area/compensation not in local strategy/ no local strategy | 0.1058 |
| Mixed scrub | 134 | Medium | Moderate | Area/compensation not in local strategy/ no local strategy | 0.0897 |
| **Total** | **1413 (Excl. trees)** | **–** | **–** | **–** | **0.3779** |

5.5.5 The proposed habitats have been classified as 'Area/compensation not in local strategy/ no local strategy'.

5.5.6 Table 11 below summarises the value of all hedgerows that are to be created as part of the Proposed Development.

5.5.7 In total, +0.1004 BU for hedgerows are to be created within the Proposed Development.

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| SSM Biodiversity Metric 4.0 Target Hedgerow Type | Length on Site (m) | Distinctiveness | Target Condition | Strategic Significance | Biodiversity Unit Value |
|---|---|---|---|---|---|
| Modified grassland | 30 | Low | Moderate | Area/compensation not in local strategy/ no local strategy | 0.1004 |
| **Total** | **30** | **–** | **–** | **–** | **0.1004** |

5.5.8 The proposed hedgerows have been classified as 'Area/compensation not in local strategy/ no local strategy'.

## 5.6 Proposed Development Summary of Net Impacts

5.6.1 Table 12 below summarises the BU value of the Proposed Development together with the unit value of any biodiversity impacts or on-Site habitat and hedgerow creation/enhancement proposals.

5.6.2 This shows that on balance, the Proposed Development would result in a net loss of -0.4075 habitat BU, equivalent to a net loss of -51.31% and a net gain for hedgerows of +0.0564 BU, equivalent to a net gain of +28.79%.

5.6.3 The Proposed Development does not satisfy the Trading Rules as unit deficits have been generated across medium distinctive habitat units.

**Table 12:** Summary of Biodiversity Metric results for habitats and hedgerows

| | **Biodiversity Units (BU)** |
|---|---|
| Existing Site habitat biodiversity value | 0.7942 |
| Existing Site hedgerow biodiversity value | 0.1960 |
| Value of gross habitat biodiversity loss | -0.7854 |
| Value of gross hedgerow biodiversity loss | -0.0440 |

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| | |
|---|---|
| Value of retained and proposed on-Site habitat creation and enhancement | 0.3867 |
| Value of retained and proposed on-Site hedgerow creation and enhancement | 0.2524 |
| Net habitat biodiversity balance | -0.4075 |
| Net hedgerow biodiversity balance | +0.0564 |

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# 6. Habitat Creation

## 6.1 Summary

6.1.1 As the Site contains habitats of conservation value, there is some scope to enhance the Site's wildlife value post development.

6.1.2 The Proposed Development will see the Site's value to wildlife and biodiversity supported through a combination of the following:

- Tree planting on Site which it is currently void of;
- Creation of native species rich hedgerows;
- Creation of nectar and pollen rich grassland; and
- Creation of mixed scrub.

## 6.2 Tree Planting

6.2.1 Species Selection: The chosen species are all UK natives and are of provenance in the local area. These species have attractive autumnal colours, berries, flowers, interesting bark and leaves and as such, the site should be attractive throughout the seasons for both residents and wildlife. The species selected have a range of life expectancies in order to provide the site with long term tree cover. Poisonous species have been avoided, as have species which commonly drop branches.

6.2.2 Trees should be positioned where they will provide the highest amenity possible and are unlikely to conflict with other trees or structures as they attain their mature height and spread.

6.2.3 Tree Specifications: Table 13 details the specification for all the replacement trees. Consideration is given to availability, immediate impact, ease of installation and likelihood of successful establishment.

6.2.4 All trees to be procured and planted in accordance with British Standards BS 8545:2014, with the nursery provider demonstrating Plant Healthy Certification and/or an adopted biosecurity policy. This will ensure that they are of good form and in good condition.

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**Table 13**: Recommended native deciduous trees to include within landscaping plans.

| Botanical Name | Common Name | Size at Purchase | Numbers |
|---|---|---|---|
| *Acer campestre* | Field Maple | Heavy standard | 2 |
| *Carpinus betulus* | Hornbeam | Heavy standard | 2 |
| *Crataegus monogyna* | Hawthorn | Heavy standard | 1 |
| *Betula pubescens* | Downey Birch | Heavy standard | 1 |
| *Corylus avellana* | Hazel | Heavy standard | 1 |
| *Sorbus aucuparia* | Rowan | Heavy standard | 1 |

## 6.3 Hedgerow Planting

6.3.1 Species Selection: The species have been selected for their hardiness, amenity value and their value to local wildlife, either in the form of flowers, berries, seeds or shelter. Species that are poisonous such as spindle *Euonymus europaeus* have been avoided. The species selected can be found on the associated Illustrative Landscape Masterplan (Drawing No: 23_280_101_A, Mood, 2023).

6.3.2 Hedgerow Specifications: **Table 14** details the specification for the newly planted hedgerows:

**Table 14**: Mixed native species-rich hedgerow planting at 30 cm spacing, double staggered lines.

| Botanical Name | Common Name | Size at Purchase | Percentage of Mix (%) |
|---|---|---|---|
| *Acer campestre* | Field Maple | 80-100cm | 10% |
| *Cornus sanguinea* | Dogwood | 80-100cm | 5% |
| *Corylus avellana* | Hazel | 80-100cm | 10% |
| *Crataegus monogyna* | Hawthorn | 80-100cm | 60% |
| *Ilex aquifolium* | Holly | 40-60cm | 5% |
| *Rosa canina* | Dog-rose | 80-100cm | 5% |
| *Viburnum opulus* | Guelder Rose | 80-100cm | 5% |
| | | **Total** | **(100 %)** |

## 6.4 Species Rich Grassland Planting

6.4.1 Species Selection: Areas of grassland planting are proposed alongside the Site's northern boundary. All species within are nectar and pollen rich, and so will attract insects such as bees and butterflies. The grasses are visually attractive, and many are the host plant of butterfly species. It is anticipated that the insects that are attracted to the Site will then provide

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a food source for larger animals, thus encouraging species such as bats and birds to the Site.

*6.4.2* Species Specifications: A list of the recommended species can be seen below in **Table 15** for the proposed grassland habitats.

**Table 15:** List of species-rich grassland mix.

| Flowering Plants | | | Grasses | | |
|---|---|---|---|---|---|
| **Botanical Name** | **Common Name** | **%** | **Botanical Name** | **Common Name** | **%** |
| *Achillea millefolium* | Yarrow | 0.3 | *Agrostis capillaris* | Common Bent | 9 |
| *Centaurea nigra* | Common Knapweed | 1.5 | *Cynosurus cristatus* | Crested Dogstail | 31.5 |
| *Daucus carota* | Wild Carrot | 0.5 | *Festuca rubra* | Slender-creeping Red-fescue | 27 |
| *Leucanthemum vulgare* | Oxeye Daisy | 1.5 | *Phleum bertolonii* | Smaller Cat's-tail (w) | 4.5 |
| *Malva moschata* | Musk Mallow | 1.5 | *Poa pratenis* | Smooth-stalked Meadow-grass | 18 |
| *Plantago lanceolata* | Ribwort Plantain | 3 | | **Total** | **90** |
| *Poterrium sanguisorba ssp sanguisorba* | Salad Burnet | 1 | | | |
| *Ranunculus acris* | Meadow Buttercup | 0.7 | | | |
| *Reseda lutea* | Wild Mignonette | 0.5 | | | |
| | **Total** | **10** | | | |

## 6.5 Scrub Planting

6.5.1 Species Selection: The species have been selected due to their diverse flowering season and the blossom sequence that they will create from March to May.

6.5.2 Species Specifications: A list of the recommended species can be seen below in **Table 16** for the proposed scrub habitat.

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**Table 16**: Recommended native scrub planting to include within landscaping plans.

| Botanical Name | Common Name | Percentage of Mix (%) |
|---|---|---|
| *Pruns domestica* | Plum | 20 |
| *Prunus spinosa* | Blackthorn | 20 |
| *Crataegus monogyna* | Hawthorn | 20 |
| *Prunus avium* | Wild cherry | 15 |
| *Malus sylvestris* | Crab apple | 15 |
| *Pyrus communis* | Wild Pear | 10 |

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# 7. Assessment of Effects

## 7.1 Statutory Designated Sites

7.1.1 No potential pathways of impact are anticipated on any statutory designated sites, primarily as a result of the distance from the site and the small-scale nature of the development.

## 7.2 Non-statutory Designated Sites

7.2.1 No potential pathways of impact are anticipated on any non-statutory designated sites, primarily as a result of the distance from the site and the small-scale nature of the development.

## 7.3 Habitats

7.3.1 Under current proposals, all natural habitats currently on suite, with the possible exception of the hedgerows and mixed scrub in the southeast corner of the site will be lost.

## 7.4 Protected and Notable Species

7.4.1 Amphibians

The potential for common amphibians to be present on site cannot be ruled out and such animals would be vulnerable to death and injury during site clearance.

7.4.2 Birds

The hedgerows and mixed scrub on site have the potential to support nesting birds in the main nesting period (February to August). Removal of, or construction in proximity to, these habitats has the potential to destroy an active nest or cause disturbance to birds listed on schedule 1 of the WCA, both of which would constitute a criminal offence.

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### 7.4.3 Bats

Bats are known to utilise the site for foraging, albeit in low numbers. Inappropriate obtrusive lighting can cause disturbance to bats and hinder their ability to forage on the site.

### 7.4.4 Badgers

Badgers may commute onto site from the adjacent woodland. There is potential for badgers to fall into excavations made during the construction phase of the development and become trapped.

### 7.4.5 Other Notable Species

Hedgehogs are likely to utilise the site for commuting and foraging. Site clearance has the potential to cause death or injury to hedgehogs. Boundary treatments installed as part of the development have the potential to hinder the free movement and dispersal of this species.

### 7.4.6 Summary of Impacts

**Table 16** below summarises the assessment of effects, including any mitigation and subsequent residual effects.

**Table 16** Summary of important ecological features and their geographic/legal context

| Receptor | Likely Significant Effect and/or Legal Implication | Avoidance and Mitigation Measures | Residual Impacts After Mitigation |
|---|---|---|---|
| Statutory designated sites | No significant effects | N/A | No significant effects |
| Non-statutory designated sites | No significant effects | N/A | No significant effects |
| Habitats | Minor adverse impact at the **Local** level | Landscaping to compensate for habitat loss | Dependant on final design, which is not known at this stage |
| Birds | Breach of WCA | Retention of scrub and hedgerows or nesting bird survey if clearance takes | No significant effects |

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| | | | |
|---|---|---|---|
| | | place and is within bird nesting season | |
| Bats | Minor adverse impact at the **Local** level | Lighting scheme design to follow guidance from ILP (2023). Bat friendly planting, | No significant effects |
| Badgers | Potential breach of legislation from killing and injury of individual badgers | Excavations to be covered at night or a means of escape provided | No significant effect |
| Hedgehogs | Potential breach of legislation from killing and injury of individual hedgehogs. Hinderance of free movement of hedgehogs | Pre-clearance inspection by an ECoW. Hedgehog holes incorporated into all boundary treatments. | No significant effect |

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# 8. Recommendations

8.1.1 In the absence of any mitigation measures, the proposed development would be anticipated to have adverse minor impacts at the Local level through removal of habitats and disturbance to foraging bats. Furthermore, breaches of legislation could result through impacts to nesting birds, badgers and hedgehogs.

8.1.2 However, with the implementation of the mitigation and precautionary measures as specified above, the proposed development is not anticipated to result in any significant adverse residual effects to important ecological features.

8.1.3 Biodiversity Net Gain

The proposed development has been calculated to result in a net loss of -0.4075 habitat BU, equivalent to a net loss of -51.31% and a net gain for hedgerows of +0.0564 BU, equivalent to a net gain of +28.79%. In addition, the Proposed Development does not satisfy the Trading Rules as a unit deficit has been generated across Medium distinctive habitat units.

As such, the client should seek to undertake one or a combination of the following recommendations to achieve an overall biodiversity net gain in habitat BU:

A. Landscaping redesign to include one or more of the following elements:
   - Decrease level of developed land; sealed surface and/or incorporate green roof structures; and/or
   - Retain existing habitats of value. In this instance, other neutral grassland.
   - Additional tree planting.

B. Purchase Habitat Bank Credits (if available) from a third-party provider equivalent to 0.4075 habitat BU to compensate for no residual biodiversity unit net gain being achieved for habitats as a result of the Proposed Development; or

C. Purchase additional land designated as a compensatory biodiversity offset Site for habitat creation and/or enhancement to offset the habitat BU losses as a result of the Proposed Development.

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8.1.4 Recommendations ‘B’ and ‘C’ require that any Habitat Bank Credits purchased satisfy or compensatory offset site satisfy the Trading Rules for a deficit of Medium distinctiveness units for habitats.

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# 9 References

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Advice on protected species is consolidated at:
*Environmental management: Wildlife and habitat conservation - GOV.UK* (2016) *Gov.uk*. Available at: https://www.gov.uk/topic/environmental-management/wildlife-habitat-conservation (Accessed: 21 September 2016).

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*Surveys and mitigation plans: protected species - Detailed guidance* (2015) *Gov.uk*. Available at: https://www.gov.uk/guidance/surveys-and-mitigation-plans-protected-species (Accessed: 21 September 2016).

Within this detailed guidance on surveys and mitigation information is available on the following protected species:

- Bats
- Natterjack toads
- Otters
- Reptiles
- Water voles
- White-clawed crayfish
- Wild birds
- Hazel dormice
- Great crested newts
- Badgers

*Wildlife licences: when you need to apply - Detailed guidance* (2014) *Gov.uk*. Available at: https://www.gov.uk/guidance/wildlife-licences (Accessed: 21 September 2016).

Within this detailed guidance on licensing information is available on licences for the following protected species:

- Bats
- Natterjack toads
- Otters
- Reptiles
- Water voles
- White-clawed crayfish
- Wild birds
- Hazel dormice
- Great crested newts
- Badgers

As well as:

- Non-native Bumblebee species
- Deer
- Freshwater fish
- Invertebrates
- Mink, coypu, muskrat and grey squirrel

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- Plants

**Species Specific Information:**

**Badgers:**

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**Bats:**

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**White-clawed Crayfish:**

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**Relevant Legislation:**

*Wildlife and Countryside Act 1981, (c. 69) (as amended). Available at:* http://www.legislation.gov.uk/ukpga/1981/69

*Countryside and Rights of Way Act 2000 (c.37). Available at:* http://www.legislation.gov.uk/ukpga/2000/37/contents

*The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Available at:* https://www.legislation.gov.uk/ukdsi/2019/9780111176573

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*The Hedgerow Regulations 1997 (No. 1160). Available at:* http://www.legislation.gov.uk/uksi/1997/1160/contents/made

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# Appendices

# Appendix 1: Site Location Map

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**8 Moor Road, Wythenshawe, Manchester, Greater Manchester, M23 9BG**

**Key**

Site Boundary

7.5 0 7.5 15 m

| | |
|---|---|
| Site: 8 Moor Road, Wythenshawe, Manchester, Greater Manchester, M23 9BG | Client: Sumo Developments Ltd |
| Plan: Site Location Map | Author: AWe |
| Plan ref: 01 | Revision: 04 |

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# Appendix 2: Baseline UKHab Map

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**8 Moor Road, Wythenshawe, Manchester, Greater Manchester, M23 9BG**

**Key**

- Site Boundary
- g3c - Other neutral grassland
- u1 - Built-up areas and gardens
- u1b - Developed land; sealed surface
- u1c - Artificial unvegetated, unsealed surface
- h2b - Other hedgerow
- h3 - Dense scrub
- w1g6 - Line of trees

7.5 0 7.5 15 m

| | |
|---|---|
| Site: 8 Moor Road, Wythenshawe, Manchester, Greater Manchester, M23 9BG | Client: Sumo Developments Ltd |
| Plan: Baseline UKHab Map | Author: AWe |
| Plan ref: 01 | Revision: 04 |

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# Appendix 3: Proposed Development Plan

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This drawing must be read in conjunction with all consultants, subcontractors and specialists drawings. All dimensions must be checked on site.

# Appendix 4: Proposed UKHab Map

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**8 Moor Road, Wythenshawe, Manchester, Greater Manchester, M23 9BG**

**Key**

- Site Boundary
- h2b - Proposed other hedgerow
- h2b - Other hedgerow
- h3 - Dense scrub
- w1g6 - Line of trees
- g3c - Other neutral grassland
- g4 - Modified grassland
- u1b - Developed land; sealed surface
- u1b5 - Buildings
- Urban trees

7.5 0 7.5 15 m

| | |
|---|---|
| Site: 8 Moor Road, Wythenshawe, Manchester, Greater Manchester, M23 9BG | Client: Sumo Developments Ltd |
| Plan: Proposed UKHab Map | Author: AWe |
| Plan ref: 01 | Revision: 07 |

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# Appendix 5: Biodiversity Action Plan ('BAP') for Greater Manchester

Habitats included within the BAP for Greater Manchester (Greater Manchester Record Centre, 2009) are as follows;

- Grasslands
- Hedgerows
- Lowland mosslands
- Reedbeds and bittern
- Ponds and lakes
- Canals
- Native woodlands
- Uplands
- Urban Managed greenspaces

Species included within the BAP for Greater Manchester (Greater Manchester Record Centre, 2009) are as follows;

- Twite *Linaria flavirostris*
- Water vole *Arvicola amphibius*
- Black redstart *Phoenicurus ochruros*
- Great crested newt *Triturus cristatus*
- Hare *Lepus europaeus*
- Black popular *Populus nigra*
- Wiilow tit *Poecile montanus*

# Appendix 6:  Baseline Condition Assessment

Tables 6.1 – 6.4. detailed below identify the criteria used to assess the condition for each habitat recorded on-Site. Developed land; sealed surface and vegetated garden are typically deemed to have limited potential for a change in biodiversity value and as such is assigned a null value in accordance with the guidelines. Condition criteria are taken from Panks *et al.* (2023).

**Table 6.1:** Condition Assessment for Hedgerows

| Hedgerow Condition Functional Groups A – D) | Attribute Criteria | Native hedgerow (Ref 1) | Native hedgerow (Ref 2) | Native hedgerow (Ref 2) |
|---|---|---|---|---|
| A1. Height | >1.5 m average along length | Yes | Yes | Yes |
| A2. Width | >1.5 m average along length | Yes | No | No |
| B1. Gap - hedge base | Gap between ground and base of canopy <0.5 m for >90% of length | Yes | Yes | Yes |
| B2. Gap - hedge canopy continuity | Gaps make up <10% of total length; and No canopy gaps >5 m | Yes | Yes | Yes |
| C1. Undisturbed ground and perennial vegetation | >1 m width of undisturbed ground with perennial herbaceous vegetation for >90% of length<br>- measured from outer edge of hedgerow, and<br>- is present on one side of the hedge (at least) | No | No | No |
| C2. Undesirable perennial vegetation | Plant species indicative of nutrient enrichment of soils dominate <20% cover of the area of | No | No | No |

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| | | | | |
|---|---|---|---|---|
| | undisturbed ground | | | |
| D1. Invasive and neophyte species | >90% of the hedgerow and undisturbed ground is free of invasive non-native and neophyte species | Yes | Yes | Yes |
| D2. Current damage | >90% of the hedgerow or undisturbed ground is free of damage caused by human activities | Yes | Yes | Yes |
| Additional group - applicable to hedgerows with trees only | | | | |
| E1. Tree age | At least one mature tree per 30m stretch of hedgerow. A mature tree is one that is at least 2/3 expected fully mature height for the species. | | | |
| E2. Tree health | At least 95% of hedgerow trees are in a healthy condition (excluding veteran features valuable for wildlife). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity. | | | |
| **Condition Assessment Result** | | **Moderate** | **Moderate** | **Moderate** |
| **Condition categories for hedgerows without trees** | | | | |

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| | |
|---|---|
| No more than 2 failures in total;<br>**And**<br>No more than 1 in any functional group. | Good (3) |
| No more than 4 failures in total;<br>**And**<br>Does not fail both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 & C2 = Moderate condition). | Moderate (2) |
| Fails a total of more than 4 attributes;<br>**Or**<br>Fails both attributes in more than one functional group (e.g., fails attributes A1, A2, B1 & B2 = Poor condition). | Poor (1) |
| **Condition categories for hedgerows with trees** | |
| No more than 2 failures in total;<br>**And**<br>No more | Good (3) |

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| | |
|---|---|
| than 1 failure in any functional group. | |
| No more than 5 failures in total; **And** Does not fail both attributes in more than one functional group (e.g., fails attributes A1, A2, B1, C2 & E1 = Moderate condition). | Moderate (2) |
| Fails a total of more than 5 attributes; **Or** Fails both attributes in more than one functional group (e.g. fails attributes A1, A2, B1 & B2 = Poor condition). | Poor (1) |

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**Table 6.2:** Condition Assessment for scrub habitats

| Condition Assessment Criteria | Mixed scrub |
|---|---|
| A. The scrub is a good representation of the habitat type it has been identified as, based on its UKHab description (where in its natural range). The appearance and composition of the vegetation closely matches the characteristics of the specific scrub type.<br><br>At least 80% of scrub is native, and there are at least three native woody species1, with no single species comprising more than 75% of the cover (except hazel Corylus avellana, common juniper Juniperus communis, sea buckthorn Hippophae rhamnoides or box Buxus sempervirens, which can be up to 100% cover). | **No** |
| B. Seedlings, saplings, young shrubs and mature (or ancient or veteran2) shrubs are all present. | **No** |
| C. There is an absence of invasive non-native plant species3 (as listed on Schedule 9 of WCA4) and species indicative of sub-optimal condition5 make up less than 5% of ground cover. | **Yes** |
| D. The scrub has a well-developed edge with scattered scrub and tall grassland and or forbs present between the scrub and adjacent habitat. | **Yes** |
| E. There are clearings, glades or rides present within the scrub, providing sheltered edges. | **No** |
| **Condition Assessment Result (Total Score)** | **Poor (2)** |
| **Condition Assessment Result** | **Condition Assessment Score** |
| Passes 5 criteria | Good (3) |
| Passes 3 or 4 criteria | Moderate (2) |
| Passes 2 or fewer criteria | Poor (1) |

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**Table 6.3:** Condition Assessment for grassland habitat (medium, high and very high distinctiveness)

| Condition Assessment Criteria | Other Neutral Grassland |
|---|---|
| A. The grassland is a good representation of the habitat type it has been identified as, based on its UKHab description - the appearance and composition of the vegetation closely matches the characteristics of the specific grassland habitat type. Indicator species listed by UKHab for the specific grassland habitat type are consistently present.<br><br>**Note - this criterion is essential for achieving Moderate or Good condition for non-acid grassland types only.** | **No** |
| B. Sward height is varied (at least 20% of the sward is less than 7 cm and at least 20% is more than 7 cm) creating microclimates which provide opportunities for insects, birds and small mammals to live and breed. | **No** |
| C. Cover of bare ground is between 1% and 5%, including localised areas, for example, rabbit warrens1. | **No** |
| D. Cover of bracken Pteridium aquilinum is less than 20% and cover of scrub (including bramble Rubus fruticosus agg.) is less than 5%. | **Yes** |
| E. Combined cover of species indicative of sub-optimal condition2 and physical damage (such as excessive poaching, damage from machinery use or storage, damaging levels of access, or any other damaging management activities) accounts for less than 5% of total area.<br><br>If any invasive non-native plant species3 (as listed on Schedule 9 of WCA4) are present, this criterion is automatically failed. | **No** |
| **Additional Criterion - must be assessed for all non-acid grassland types** | |

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| | |
|---|---|
| F. There are 10 or more vascular plant species per m2 present, including forbs that are characteristic of the habitat type (species referenced in Footnote 2 and 4 cannot contribute towards this count).<br><br>**Note - this criterion is essential for achieving Good condition for non-acid grassland types only.** | **No** |
| **Condition Assessment Result (Total Score)** | **Poor (1)** |
| **Condition Assessment Result** | **Condition Assessment Score** |
| **Acid Grassland Types (Result out of 5 criteria)** | |
| Passes 5 criteria | Good (3) |
| Passes 3 or 4 criteria | Moderate (2) |
| Passes 2 or fewer criteria | Poor (1) |
| **Non-acid grassland Types (Result out of 6 criteria)** | |
| Passes 5 or 6 criteria, including essential criterion A and additional criterion F. | Good (3) |
| Passes 3 - 5 criteria, including essential criterion A. | Moderate (2) |
| Passes 2 or fewer criteria;<br>OR<br>Passes 3 or 4 criteria excluding criterion A and F. | Poor (1) |

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**Table 6.4:** Condition Assessment for line of trees

| Condition Assessment Criteria | Line of trees |
|---|---|
| A. At least 70% of trees are native species. | **Yes** |
| B. Tree canopy is predominantly continuous with gaps in canopy cover making up <10% of total area and no individual gap being >5 m wide. | **Yes** |
| C. One or more trees has veteran features and or natural ecological niches for vertebrates and invertebrates, such as presence of standing and attached deadwood, cavities, ivy or loose bark. | **No** |
| D. There is an undisturbed naturally-vegetated strip of at least 6 m on both sides to protect the line of trees from farming and other human activities (excluding grazing). Where veteran trees are present, root protection areas should follow standing advice2. | **No** |
| E. At least 95% of the trees are in a healthy condition (deadwood or veteran features valuable for wildlife are excluded from this). There is little or no evidence of an adverse impact on tree health by damage from livestock or wild animals, pests or diseases, or human activity. | **Yes** |
| **Condition Assessment Result (Total Score)** | **Moderate (3)** |
| **Condition Assessment Result** | **Condition Assessment Score** |
| Passes 5 criteria | Good (3) |
| Passes 3 or 4 criteria | Moderate (2) |
| Passes 2 or fewer criteria | Poor (1) |

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# Appendix 7: Photographic Evidence



Photo 1: Hardstanding with grassland beyond.



Photo 2: Ruderal vegetation (foreground) with native hawthorn hedge beyond.



Photo 3: Grassland on site with the line of trees in the background.



Photo 4: The site viewed from the southwest corner.



Photo 5: Native hedge, hard standing and unsealed surface in the northeast corner of the site.

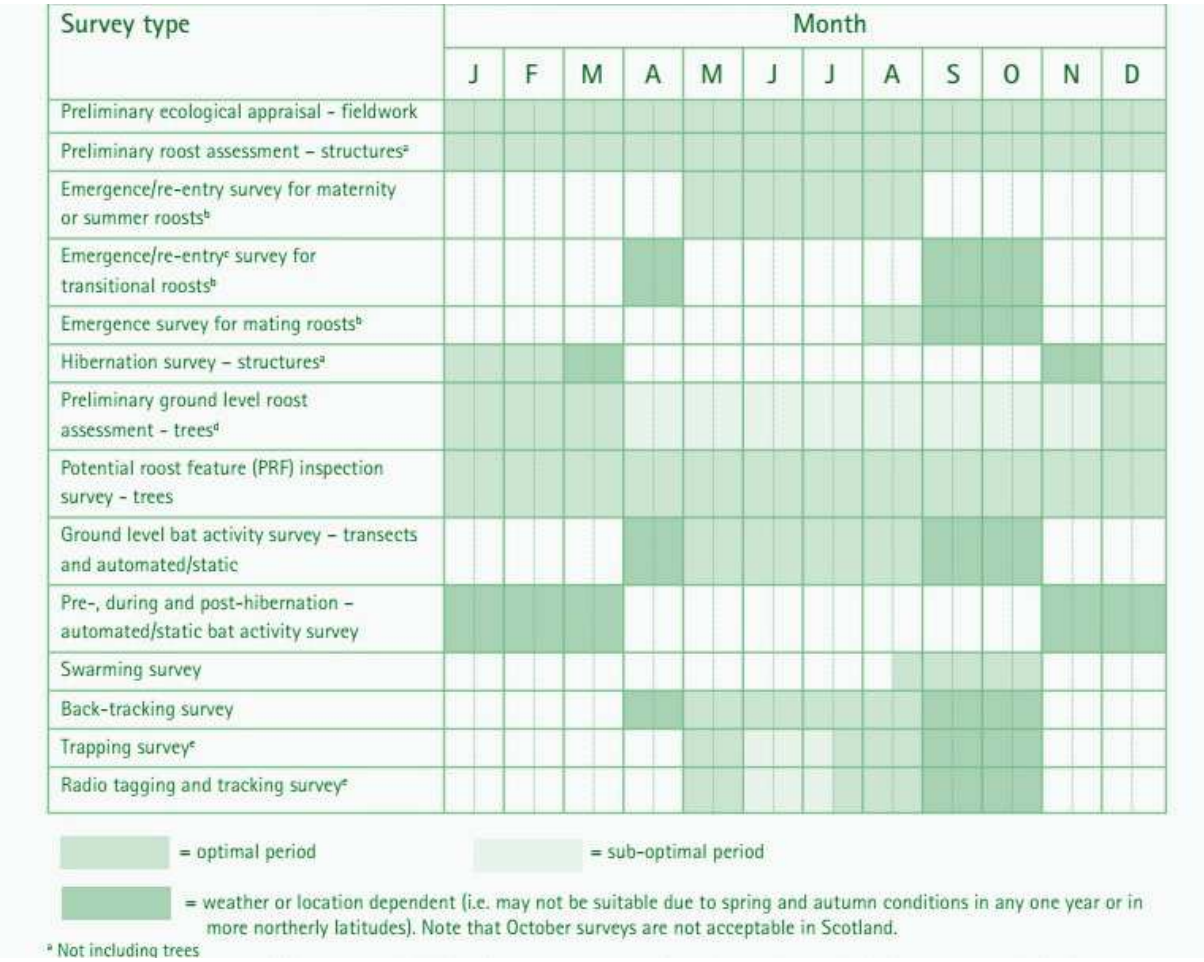


Photo 6: Entrance to the site.

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# Appendix 8: Bat Survey Calendar

**Figure 1:** Survey timings calendar (taken from BCT: Bat surveys for professional Ecologists, Good Practice Guidelines; 3rd Edition).



| Survey type | Month | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | J | F | M | A | M | J | J | A | S | O | N | D |
| Preliminary ecological appraisal - fieldwork | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Preliminary roost assessment – structures[a] | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Emergence/re-entry survey for maternity or summer roosts[b] | | | | | ■ | ■ | ■ | ■ | | | | |
| Emergence/re-entry[c] survey for transitional roosts[b] | | | | ■ | | | | | ■ | ■ | | |
| Emergence survey for mating roosts[b] | | | | | | | | ■ | ■ | ■ | | |
| Hibernation survey – structures[a] | ■ | ■ | ■ | | | | | | | | ■ | ■ |
| Preliminary ground level roost assessment - trees[d] | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Potential roost feature (PRF) inspection survey - trees | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ | ■ |
| Ground level bat activity survey – transects and automated/static | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | |
| Pre-, during and post-hibernation – automated/static bat activity survey | ■ | ■ | ■ | | | | | | | | ■ | ■ |
| Swarming survey | | | | | | | | ■ | ■ | ■ | | |
| Back-tracking survey | | | | ■ | ■ | ■ | ■ | ■ | ■ | ■ | | |
| Trapping survey[e] | | | | | ■ | ■ | ■ | ■ | ■ | ■ | | |
| Radio tagging and tracking survey[e] | | | | | ■ | ■ | ■ | ■ | ■ | ■ | | |

■ = optimal period ■ = sub-optimal period

■ = weather or location dependent (i.e. may not be suitable due to spring and autumn conditions in any one year or in more northerly latitudes). Note that October surveys are not acceptable in Scotland.

[a] Not including trees

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# Appendix 9: Glossary

**Activity surveys -** are used to assess the level of bat activity at a site. This can be done either by using equipment such as an AnaBat device, or manually walking around a site with a heterodyne detector, documenting the number of bat passes and interceptions.

**Dawn surveys -** begin around 2 hours before and up to sunrise when bats are returning to their roosts from foraging, and swarming behaviour can be seen close to roost entrances.

**Dusk surveys** - begin around 30 minutes before sunset and up to 2 hours afterwards. These are done in order to see bats emerging from their roost sites at night.

**Echolocation** – is a system similar to sonar that allows bats to travel and forage even in total darkness. Bats make a call and then listen to the returning echoes in order to build up a map of their surrounding area. This allows bats to gauge the identity and distance of an object by how long the echo takes to return to them.

**Habitat** - the ecological or environmental area that is inhabited by a particular species of animal, plant or other type of organism.

**Hibernation** - is a state of inactivity and metabolic depression characterized by lower body temperature, slower breathing, and lower metabolic rate. Hibernating animals conserve energy, especially during winter when food is short, tapping energy reserves, i.e. body fat, at a slow rate.

**Hibernacula** - typically consist of underground sites, such as caves and cellars, which remain relatively cold and humid. Bats will hibernate to conserve energy over the winter months when falling temperatures cause a drop in the abundance of insects. These will typically be colonised around November to around March.

**Insectivorous** – is when an organism feeds exclusively on insects.

**Nocturnal** - a behaviour characterized by being active during the night and sleeping during the day.

**Maternity roost**s – colonised around late May early June and consist of mature females and their young. These roosts need to be warm and quiet, and are used up until around August, with females typically leaving first and then the young.

**Mating roosts** – mating begins around late October to November. Males of most species use special mating calls to attract females. These can include purrs, clicks and buzzing.

**Roost** – a site where bats live during the day, rear young and hibernate. These can be in man made structures, such as buildings, bridges, tunnels, cellars and mines, or natural features such as mature trees and caves.

**Roosts in buildings** – many types of buildings will be used by bats. The most likely sites are agricultural buildings (e.g. farmhouses and barns), buildings with exposed wooden beams (greater than 20cm thick), buildings with weather boarding and/or hanging tiles, and buildings close to woodland and/or water.

**Roosts in trees** – these are typically in mature trees with deep sheltered cracks, under loose sections of bark, or in woodpecker holes.

**Species** – a group of organisms in which all members can interbreed and produce viable offspring.

**Summer roosts (non-breeding) -** these are generally occupied by groups of males and immature females during the summer, and are usually only occupied for a short period before the group moves to another location.

**Swarming** – a behaviour exhibited by bats returning to their roost sites at dawn. Bats can be seen repeatedly flying to and from the roost entrance, making it much easier for consultants to identify where roosts are on a building or structure.

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**Temporary/Transitory roosts** – These are used after hibernation (March – April) before mature females disperse to maternity roosts and male/immature females colonise summer (non-breeding) roosts. Similarly, temporary roosts form before hibernation (August -October).

**Underground Roosts** – these are typically used during the winter and can be mines, caves, tunnels or cellars.

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# Appendix 10: Protected Species Information

The following species are fully protected in UK law, under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019:

- All UK bat species
- Dormouse
- Great Crested Newt and Natterjack Toad
- Large Blue Butterfly
- Otter
- Pine Marten
- Polecat
- Scottish Wild Cat
- Smooth Snake and Sand Lizard
- Various aquatic and plant species

These species are afforded the highest protection in the UK. Under this protection it is an offence to; deliberately capture, injure or kill any wild animal of a European protected species; deliberately disturb wild animal of any such species; deliberately take or destroy the eggs of such an animal, or damage or destroy a breeding site or resting place of such an animal.

In addition to this it is an offence to be in possession of, or to control, transport, sell or exchange, or to offer for sale or exchange, a European Protected species.

The following species are protected under UK law, such as the Wildlife and Countryside Act 1981 (as amended):

- Badger
- Nesting birds
- Red Squirrel
- Reptiles (Adder, Common lizard, Grass snake, Slow worm)
- Water Vole
- White Clawed Crayfish
- Various bird species i.e. Barn Owl
- Various plant species

Therefore under this protection it is an offence to; kill, injure or take any of the above species.

Nesting birds are only protected during the breeding season whilst on their nest. In addition to the adults being protected, the eggs, young and nest itself whilst in use are protected.

The Wildlife and Countryside Act 1981 also contains measures to prevent the establishment of non-native species which may be detrimental to native wildlife, prohibiting the release of

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animals and planting of plants listed in Schedule 9 in England and Wales (e.g. Japanese Knotweed and Himalayan Balsam).

Badgers are protected under The Protection of Badgers Act 1992. Under this legislation it is an offence to; take, injure, kill, or cruelly ill-treat a badger; interfere with a badger sett; sell or possess a live badger; or mark or ring a badger.

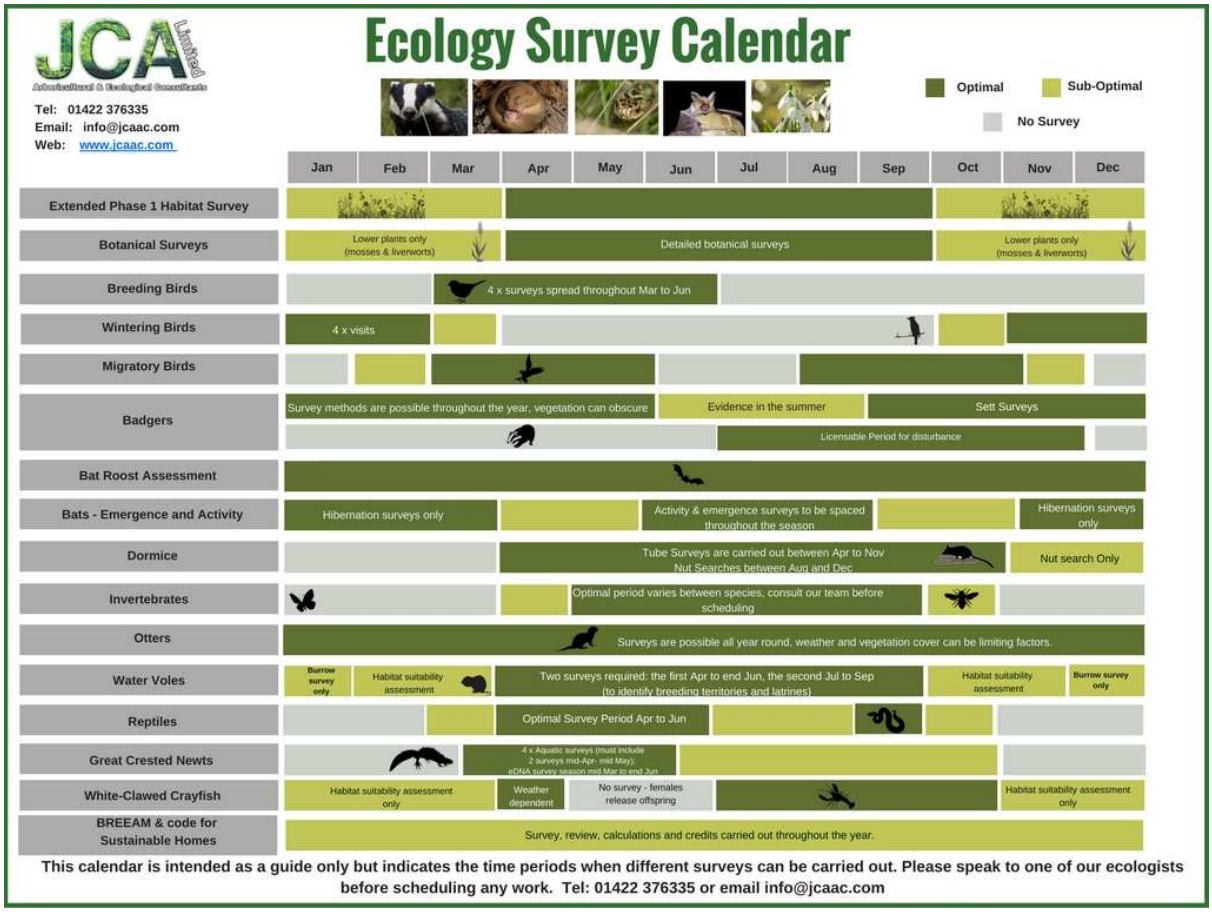
The following habitat types are protected under UK Law:

- Habitats that are used by protected species
- Habitats that fall within designated sites
- Hedgerows
- Individual trees/woods can be protected under Tree Preservation Orders

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# Appendix 11: Survey Calendar

**Figure 2**: Survey calendar for protected species and habitat surveys.




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# Appendix 12: Author Qualifications

**Adam West, Principal Ecologist**

*BSc (Hons) Animal and Wildlife Management, ACIEEM.*

Adam joined JCA to lead the expanding ecology department. Having returned to education as a mature student, Adam studied Countryside Management for two years before undertaking a Batchelor's degree in Animal and Wildlife Management, for which he was awarded First Class Honours. Adam has many years' experience in ecological consultancy, working on projects ranging from individual planning applications to national infrastructure projects. Adam holds a Natural England Level 1 great crested newt survey class licence and a Natural England Level 2 bat survey class licence.

**James Foster, Assistant Ecologist**

*BSc (Hons) Biology.*

James gained his undergraduate degree in biology in 2012 from University of Leeds. James has plenty of experience in ecology, having worked countless projects of different scales all over the north and midlands. James has 9 years of experience surveying anything from reptiles to hedgerows and holds a Great crested newt licence level 1 and is working towards his bat licence and barn owl licence.

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The information which we have prepared and provided is true and has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct. We confirm that the opinions expressed are our true and bona fide opinions.

Signed



.....

Adam West *ACIEEM*

16/08/2024

Reviewed by



.....

James Foster

16/08/2024

For and on behalf of ***JCA Ltd***

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## ECOLOGICAL SERVICES

### Ecological Pre-Planning Services

- Phase 1 Habitat Surveys
- Great Crested Newt eDNA Sampling
- Protected species: Bat, Wintering and Nesting Bird, Badger, Amphibian, Otter, Water Vole, White-Clawed Crayfish, Dormice and Reptile Surveys.
- Preparation for Environmental Impact Assessment (EIA)
- Invasive Species Surveys
- Code for Sustainable Homes
- Butterfly & Insect Surveys

### Ecological Post-Planning Services

- Biodiversity Enhancement Plans
- Protected Species Mitigation
- Ecological Management (Bat and Bird box installation and inspection)
- Planting Schemes
- Monitoring of bird or bat boxes.

## ARBORICULTURAL SERVICES

### Guidance for Architects & Developers

- British Standard 5837 Surveys
- Arboricultural Implications Assessments (AIA)
- Arboricultural Method Statements (AMS)

### Advice for Engineers, Loss Adjusters and Insurers

- Tree Surveys for Subsidence
- Heave Assessment
- Tree Root Identification

### Advice for Local Authorities and Social Housing

- Tree Safety Surveys
- Specialist Decay Detection
- Landscape and Orchard Design

### Tree Advice for the Legal Profession

- Subsidence Litigation
- Personal Injury and Accident Investigation
- Expert Witness, Planning Inquiries and Appeals

### Veteran Tree Management

- Ancient Woodland Management
- Veteran Tree Management

### Tree Health and Pest and Disease Management

- Pest and Disease Surveys
- Tree Health Checks
- Disease Mitigation and Control

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Arboricultural & Ecological Consultants



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