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Project: 24_PEA_BNG_11_06
Site: 28 Edge Lane, Chorlton-cum-Hardy, Manchester, M21 9JY
Client: Matt Mcnulty



Supplementary Document - Survey Methodology PRA.

Supplementary Document - Potential Roosting Features.

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Project Number:	24_PEA_BNG_11_06
Report Type:	Preliminary Ecological Appraisal Report (PEAR) & Biodiversity Net Gain (BNG) Assessment
Site Address:	28 Edge Lane, Chorlton-cum-Hardy, Manchester, M21 9JY

Role:	Name:	Date:
Customer	Matt Mcnulty	NA
Surveyor	Alex Barnes	22/11/2024
Consultant	Max Shaw	3/12/2024

Revision History		
Date:	Version number:	Summary of changes:
4/12/2024	1.0	First Review (Internal)
17/01/2024	1.0	First Issue

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Summary:	
Report Number	24_PEA_BNG_11_06
Site Surveyed	Land at 28 Edge Lane, Chorlton-cum-Hardy, Manchester, M21 9JY National Grid Reference: 80909 94017
Purpose & Brief	Preliminary ecological appraisal commissioned by Matt McNulty
Development Proposals	The specific details of the proposed development are currently unknown. However, it is anticipated that any future development will involve modifications to the existing residential property and associated structures on-site. Further clarification of the development plans will be required to fully assess potential ecological impacts.
Methods	Desk Study UK Habitat Classification (UKHab) survey of the site. Assessment of likely significant effects as far as can be reasonably and proportionally known
Confirmed Ecological Constraints	None
Potential Ecological Constraints	Roosting bats Nesting birds
Recommendations For Further Survey Works	Bat presence / absence surveys Pre-works nesting bird check Production of wildlife sensitive lighting scheme
Opportunities For Ecological Enhancements	Bat boxes Bird boxes Native species planting

With the assumption that the existing conditions on-site remain unchanged. The results of this report are likely to remain valid for 12-months inline with the guidance published by CIEEM and the Bat Conservation Trust.

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Appendix 2: Desktop Study
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Acknowledgements:

Data referred to within this report was sourced from Natural England Department for Environment, Food and Rural Affairs Multi-Agency Geographic Information for the Countryside (DEFRA MAGIC) database and through direct consultation with Greater Manchester Ecology Unit (GMEU).

Client Documents:

This report has been completed on assumption that the plans provided by the client at the time of issue of this report remain the same. A list of the documents provided by the client can be found in the table below.

Table: Documents provided by the client as of October 2024.

Plans provided by client as of October 2024
002-Existing Elevations.pdf
201-Proposed Elevations.pdf
211-Street Elevations 2.pdf
1000-Existing Site Plan.pdf
1001-Proposed Site Plan.pdf
1003-Location Plan.pdf

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1 Introduction

1.1 ROAVR Group were commissioned to undertake a Preliminary Ecological Appraisal Report (PEAR) at 28 Edge Lane, Chorlton-cum-Hardy, Manchester, M21 9JY.

1.2 The survey was comprised of a desktop study, which was undertaken in November 2024 and a site survey, which was carried out by Alex Barnes.

1.3 The methodology and results are outlined within the report. Where applicable, recommendations for suitable mitigation and ecological enhancements are provided.

1.4 The report is to be submitted to support a planning application Full details of the proposals can be found on the planning portal.

1.5 The information and recommendations within this report have been prepared and provided in accordance with CIEEM's Code of Professional Conduct (CIEEM, 2022).

SITE DESCRIPTION

1.6 The survey site covers an area of approximately 1,564.6 sq metres and is centred on grid reference '80909 94017'.

1.7 The site is situated in an urban area in the Manchester City Council control area. The site is located on the west side of Chorlton-cum-Hardy and is accessed via private access driveway.

1.8 The surveyed site is located at 28 Edge Lane, Chorlton-cum-Hardy, Manchester, and comprises a detached three-storey residential property (B1) which has been converted into multiple flats. The property also includes a basement and is set within an urban context. To the north of the site lies an open area of hardstanding used for access, along with a row of single-storey garages (B2) adjacent to the boundary. The site is entirely enclosed by boundary walls.

The immediate surroundings of the site consist of a mix of habitats, including self-set trees along the southern boundary (HAB 1) and a line of mature trees and hedgerow along the eastern boundary (HAB 2). Additionally, at the front of B1 lies a poorly maintained grassed area (HAB 3), which contains approximately six remnant mature trees. These features provide some structural habitat variety, although the site is heavily influenced by its urban surroundings.

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DEVELOPMENT PROPOSALS

1.9 The specific details of the proposed development are currently unknown. However, it is anticipated that any future development will involve modifications to the existing residential property and associated structures on-site. Further clarification of the development plans will be required to fully assess potential ecological impacts.

SCOPE OF WORKS

1.10 The aims of this assessment were to:

- identify the likely ecological constraints associated with the proposed development;
- identify suitable mitigation measures (if required);
- determine whether further surveys are necessary;
- identify opportunities for ecological enhancement;

2 Methodology

DESKTOP STUDY

2.1 Site-specific information in relation to land designations, protected species and protected habitats within a 2km search area was sourced from DEFRA MAGIC.

2.2 In order to ensure that ecological data searches were up to date, species data was screened and all data records pre-2012 was omitted from the results.

2.3 Results of the desktop study should be considered to be indicative only.

UKHAB SURVEY

2.4 A Preliminary Ecological Appraisal, comprised of a site walkover and mapping was undertaken by Alex Barnes on 2024-11-22. The PEA was undertaken in line with CIEEM's 'Guidelines for Preliminary Ecological Appraisal (CIEEM, 2017). Alex Barnes has been completing preliminary ecological appraisals for over five years and regularly undertakes surveys of this scale. They have received professional training in all aspects covered in this report.

2.5 The survey was conducted from the ground. Habitats and features of importance were mapped using a GPS enabled handset.

2.6 A Site Habitat Map was produced in accordance with the UK Habitat Classification Manual (Butcher et al., 2020). (Appendix 3).

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PRELIMINARY BAT ROOST ASSESSMENT (PRA)

2.7 A Preliminary Roost Assessment, comprised of a preliminary ground level roost assessment was undertaken during the site survey on 2024-11-22. The PRA was undertaken in line with the Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2023).

2.8 The survey included an active search for bats, evidence of bats (such as droppings, feeding remains, urine splatters, oil staining, bat fur and/or scratch marks) and potential roosting features (PRFs). PRFs of trees are listed in Table 2.8.1. PRFs of built structures are listed in Table 2.8.2. The lists are not exhaustive but show examples of the most commonly used roosting features of built structures and trees.

Table 2.8.1: Potential roosting features (PRFs) in built structures listed in Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2023).

Potential roosting features (PRFs) in built structures	
External	Internal
- Access/egress through windowsills, window panes and walls; - Behind peeling paintwork or lifted rendering; - Behind hanging tiles; - Weatherboarding; - Eaves; - Soffit boxes; - Fascias; - Lead flashing; - Gaps under felt (even including those of flats roofs); - Under tiles/slates; - Existing bat boxes; - Gaps in brickwork or stonework which provide access/egress to cavity or rubble-filled walls	- Behind wooden panelling; - In lintels above doors and windows; - Behind window shutters and curtains; - Behind pictures, posters, furniture, peeling paintwork, peeling wallpaper, lifted plaster and boarded windows; - Inside cupboards and in chimneys accessible from fireplaces; - Within attic roof voids; - The top of gable end or dividing walls; - The top of chimney breasts; - Ridge and hip beams and other roof beams; - Mortise and tenon joints; - All beams; - The junction of roof timbers, especially where ridge and hip beams meet; - Behind purlins; - Between tiles and the roof lining; - Under flat felt roofs

GROUND LEVEL TREE ASSESSMENT (GLTA)

2.9 A Preliminary Bat Roost Assessment, comprised of a preliminary ground level roost assessment was undertaken by Alex Barnes during the site survey on 2024-11-22. The GLTA was undertaken in line with the Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2023).

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2.10 The survey included an active search for bats, evidence of bats (such as droppings, feeding remains, urine splatters, oil staining, bat fur and/or scratch marks) and potential roosting features (PRFs). PRFs of trees are listed in Table 2.10.1. The lists are not exhaustive but show examples of the most commonly used roosting features of trees.

Table 2.10.1: Potential roosting features (PRFs) in trees listed in Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2023) Table 6.6.

Table 2.10.1. PRF types that can be exploited by bats and how they form (adapted from Bat Roosts in Trees, BTHK, 2018) reproduced from Table 6.6. (Collins, 2023.)		
PRFs formed by disease and decay	*PRFs formed by damage*	*PRFs formed by association*
• *Woodpecker holes* • *Squirrel holes* • *Knot holes* • *Pruning cuts* • *Tear outs* • *Wounds* • *Cankers* • *Compression forks* • *Butt rots*	• *Lighting strikes* • *Hazard beams* • *Subsidence* • *Cracks* • *Shearing cracks* • *Transverse snaps* • *Welds* • *Lifting bark* • *Desiccation* • *Fissures* • *Frost cracks*	• *Fluting* • *Ivy*

Table 2.10.2. Guidelines for assessing the suitability of trees on proposed development sites for bats, to be applied using professional judgement.reproduced from Table 6.6. (Collins, 2023.)	
Suitability	*Description*
NONE	*Either no PRFs in the tree or highly unlikely to be any*
FAR	*Further assessment required to establish if PRFs are present in the tree*
PRF	*A tree with at least one PRF present*

2.11 A Site PRF Map was produced to show the location of built structures, trees and potential roosting features (PRFs). Habitats and features of importance were mapped using a GPS enabled handset.

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SUITABILITY ASSESSMENT

2.12 The likelihood of occurrence of protected ecological features and species was ranked in accordance with the criteria listed in Tables 2.10.1 and 2.10.2. Likelihood of occurrence was assessed using data collected during the desk study and after evaluation of the habitats on-site (during the site survey) as to their likelihood to provide suitability for protected species (i.e. presence of breeding, nesting, roosting, foraging, commuting and/or refuge habitat for example).

Table 2.12.1: Criteria used to assess the likelihood of occurrence for protected ecological features and species on-site (excl. bats).

Likelihood of occurrence	Criteria
Present	Confirmed as present during the site survey or by confirmed historical records.
High	Species are known to be present within close proximity to the site (records present). Habitats on-site are of high quality for the species and/or likely to support a large population. The site is well connected to good quality habitat within the local area.
Moderate	Species are known to be present within the local area (records present). Habitats on-site are of moderate quality for the species and/or likely to support a moderate population. The site and connected habitats provide all of the ecological requirements of the species. Suitability of habitats on-site may be limited due to disconnectivity to the wider landscape, poor to moderate habitat available within the wider locality, and/or due to the presence of only a small area of suitable habitat.
Low	Few or no records of the species within the local area. Habitats on-site are of poor quality for the species and/or likely to support just a few individuals. The suitability of habitats may be limited due to disturbance, isolation and/or poor quality habitat available within the wider locality. However, species presence cannot be discounted due to the national distribution of the species or the nature of on-site and surrounding habitats (if all required ecological requirements for the species are present).
Negligible	While presence cannot be absolutely discounted, the site includes very limited or poor quality habitat for a particular species. Connected habitats do not fulfil the ecological requirements of the species. There are no local records and/or the site is outside the known national range of the species.

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Table 2.12.2: Criteria used to assess the likelihood of occurrence (site's suitability) for bats, from Bat Conservation Trust's 'Bat Surveys for Professional Ecologists: Best Practice Guidelines' (Collins, 2023) (Table 4.1.)

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

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ECOLOGICAL CONSTRAINTS AND MITIGATION

2.13 An evaluation of the potential ecological constraints to the proposed development and appropriate mitigation strategies was made following CIEEM's 'Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM, 2018).

LIMITATIONS

2.14 Only one site visit was undertaken, therefore, a full evaluation of species present throughout the year could not be made. Therefore, there were seasonal constraints to species identification. However, the data collected during the site survey was sufficient to make an appropriate assessment of the site.

3 Policy and Legislative Context

3.1 This section includes the legislative context of those protected species or other notable species that are recorded on-site, or have the potential to be present on-site. Details on specific legislation for other protected or notable species that have not been identified as being present, or having the potential to be present, are not included below.

NATIONAL PLANNING POLICY

3.2 The introduction of the National Planning Policy Framework (NPPF) in March 2012 sets out the Government's planning policies for England and how these are expected to be applied in the presumption in favour of sustainable development. It sets out the Government's requirements for the planning system, only to the extent that it is relevant, proportionate and necessary to do so and is a material consideration for local planning authorities in determining applications.

3.3 Planning Practise Guidance is relevant covering the Natural Environment alongside the NPPF. Therefore features of ecological value should be considered in the context of conserving and enhancing the natural environment.

3.4 The Government's objectives for planning are to promote sustainable development, to conserve, enhance and restore the diversity of England's wildlife and geology and to contribute to rural renewal and urban renaissance.

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LOCAL PLANNING POLICY

3.5 This report has been commissioned in order to comply with policies upheld in the 'Places for Everyone Joint Development Plan 2022 to 2039', especially the following:

- Policy JP-G7: Trees and Woodland
- Policy JP-G8: A Net Enhancement of Biodiversity and Geodiversity

https://www.greatermanchester-ca.gov.uk/what-we-do/planning-and-housing/places-for-everyone/pfe-adoption

NATIONAL AND INTERNATIONAL LEGISLATION

3.6 Bern Convention on the Conservation of European Wildlife and Natural Habitats (1982)

3.7 Convention on the Conservation of Migratory Species of Wild Animals (1983)

3.8 Countryside and Rights of Way Act (2000)

3.9 National Parks and Access to the Countryside Act (1949)

3.10 Natural Environment and Rural Communities Act (2006)

3.11 Protection of Badgers Act (1992)

3.12 The Conservation of Habitats and Species Regulations (2017)

3.13 The Convention of International Trade in Endangered Species of Wild Fauna and Flora (1975)

3.14 The Hedgerows Regulations (1997)

3.15 UK Biodiversity Action Plan (1994)

3.16 Wildlife and Countryside Act (1981)

3.17 Wild Mammals (Protection) Act (1996)

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4 Desktop Study

SITE DESIGNATIONS

4.1 There are no designated sites within the 2km search area.

Table 4.1.1: Designated sites recorded within a 2km radius of the survey site.

Site Name	Grid Reference	Area (ha)	Approx. Closest Distance from Site (km)
SSSI Impact Risk Zones	NA	NA	0 km

*Data from DEFRA MAGIC

Table 4.1.2: Local wildlife sites recorded within a 2km radius of the survey site.

Site Name	Grid Reference	Area (ha)	Approx. Closest Distance from Site (km)	Notes
Broad Ees Dole LNR	SJ 8008 9344	8.78	1.0 km	A wildlife refuge in the busy Sale Water Park site. Although there are no footpaths leading through the Dole, the footpaths around the perimeter of the site provide excellent viewpoints to watch the bird life for which the site is so important.
Chorlton Ees & Ivy Green	SJ 8066 9330	30.93	0.9 km	On the site of a former sewage works there are now meadows, wildflowers and woodland walks.

*Data from DEFRA MAGIC

LOCAL HABITAT

4.2 There were more than 10 priority habitats that were formerly mapped within the 2km search area.

Table 4.2.1: Priority habitats formerly mapped within a 2km radius of the survey site.

Habitat	Approx. Closest Distance from Site (km)
Coastal and Floodplain Grazing Marsh	1.1 km
Good quality semi-improved grassland	1 km
Lowland Fens	1 km
Deciduous Woodland	0.2 km
Traditional Orchards	1.2 km

*Data from DEFRA MAGIC

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4.3 There was one water body situated within a 500m radius of the survey site. Rough Leech Gutter 122 metres south west of the site. The waterbody is not considered well connected to the site, as it is separated by an area of hardstanding and Edge Lane.

HISTORICAL SPECIES RECORDS

4.4 Protected species records relating to the site and 2km search area were obtained from the LERC as part of the desktop study. The data search contains confidential information that is not suitable for public release. Therefore, the data has not been included in the report.

4.5 A full list of identified species recorded within the 2km search area has been obtained from GMEU.

4.6 The absence of identified records does not discount the presence of a species. An absence of identified records is primarily a result of a lack of survey or the non-submission of records. Furthermore, historical records of species do not confirm their current presence within an area.

4.7 A record search of GMEU highlighted 7 confirmed bat roosts within a 2km radius of the site for species including Common (*Pipistrellus pipistrellus)* and Soprano pipistrelle *(Pipistrellus pygmaeus),* and Brown Long-eared bats (*Plecotus auritus).* There were 86 records of individual bats within 2 km of the site, species including; Common pipistrelle (*Pipistrellus pipistrellus*), Soprano pipistrelle (*Pipistrellus pygmaeus*), Brown Long-eared bats *(Plecotus auritus*), Noctule (*Nyctalus noctula*) and Daubenton's Bat (*Myotis daubentonii*).

Table 4.7.1: Previous protected species licences for bats mapped within a 2km radius of the survey site

Reference, Date and Species	Approx. Distance from Site (km)
2015-15443-EPS-MIT-1 - 20/10/2015 - Brown Long-eared Bat (*Plecotus auritus)*	700m SE

*Data from DEFRA MAGIC

4.8 A record search of GMEU databases returned 94 records of Hedgehog (*Erinaceus europaeus*) and 10 records of Badger (*Meles meles*) within 2 km of the site, as well as 17 records of identified badger setts in 2022.

4.9 A record search of GMEU returned over 100 records of protected bird species. The most notable species include; Barn Owl (*Tyto alba*), Kingfisher (*Alcedo atthis*) and Red Kite (*Milvus milvus*).

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5 Site Survey

5.1 The site survey was undertaken on 2024-11-22. The weather conditions were considered to be appropriate to survey (Table 5.1.1).

Table 5.1.1: Weather conditions at the time of survey.

Date of site survey: 2024-11-22	
Weather Conditions:	The weather during the survey was clear, bright, and dry.

*Data from BBC Weather.

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UK HABITAT SURVEY

5.2 Site and building description:

The surveyed site is located at 28 Edge Lane, Chorlton-cum-Hardy, Manchester, and comprises a detached three-storey residential property (B1) which has been converted into multiple flats. The property also includes a basement and is set within an urban context. To the north of the site lies an open area of hardstanding used for access, along with a row of single-storey garages (B2) adjacent to the boundary. The site is entirely enclosed by boundary walls.

The immediate surroundings of the site consist of a mix of habitats, including self-set trees along the southern boundary (HAB 1) and a line of mature trees and hedgerow along the eastern boundary (HAB 2). Additionally, at the front of B1 lies a poorly maintained grassed area (HAB 3), which contains approximately six remnant mature trees. These features provide some structural habitat variety, although the site is heavily influenced by its urban surroundings. Supporting photographic evidence further illustrates the current condition of the site and the associated habitats.

The front (northern) elevation of Building B1 consists primarily of brick construction with large windows indicative of its residential use, some of which may provide potential access points for nesting birds or roosting bats, particularly where gaps or crevices are visible around window frames or masonry. The roof at this elevation, a pitched structure with tiles, appears to be intact; however, areas where tiles are lifted or damaged could offer opportunities for bat ingress.

The eastern elevation comprises predominantly unbroken brickwork with fewer structural features, reducing its ecological potential. However, the vegetation directly adjacent to this wall, as part of HAB 2, could act as a foraging or commuting corridor for small birds and other species, linking with mature trees on-site.

The southern elevation is similar in construction to the northern elevation but is more obscured by self-set trees from HAB 1. These trees provide some connectivity for wildlife and may facilitate bat foraging activity near the structure.

The western elevation of B1, facing the urban surroundings, features minimal vegetation and fewer suitable roosting or nesting features. The boundary on this side is dominated by hardstanding, further reducing ecological opportunities.

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5.3 A description of habitat present along with target notes is shown in Table 5.3.1. The location of habitats is shown in the Site Habitat Map, Appendix 3.

Table 5.3.1: Description of habitats present on-site (please also see the Site Habitat Map, Appendix 3).

Habitats and Target Notes	Description	Supporting Photo

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Habitat 1 : W1g6 Line of trees	W1g6: HAB 1 consists of a row of self-set trees situated along the southern boundary of the site, occupying a narrow strip of approximately 2 metres composed of exposed soil and tree roots. The trees present include sycamore (*Acer pseudoplatanus*), ash (*Fraxinus excelsior*), and ornamental cherry (*Prunus spp.*), which are common in urban environments. The ground beneath the trees is largely devoid of vegetation, likely due to shading and soil compaction, with exposed roots dominating the substrate. These trees are young to semi-mature in age and do not display features typically associated with high potential for roosting bats, such as rot holes, fissures, or peeling bark. However, the linear arrangement and proximity to other vegetation on-site provide potential foraging and commuting corridors for birds and invertebrates. Birds such as blackbird (*Turdus merula*) and woodpigeon (*Columba palumbus*) were observed using this habitat, and it may offer nesting opportunities during the breeding season. The structure of the trees and associated bare ground provides limited ecological value but contributes to the site's overall connectivity and might hold some potential for enhancement through targeted planting or management interventions.	 Image 1

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		 Image 2

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		 Image 3

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Habitat 2 : W1g6 Line of trees	W1g6: HAB 2 consists of a narrow linear strip of vegetation along the eastern boundary, comprising a hedgerow with occasional mature trees. The hedgerow is dominated by hawthorn (*Crataegus monogyna*) and elder (*Sambucus nigra*), with some ivy (*Hedera helix*) climbing the lower stems. Mature trees interspersed along the hedgerow include sycamore (*Acer pseudoplatanus*) and ash (*Fraxinus excelsior*), which contribute to the structural diversity of the habitat. The ground layer beneath the hedgerow is composed of bare soil with scattered leaf litter, likely a result of shading and limited maintenance. The dense structure of the hedgerow provides suitable nesting habitat for common birds such as robin (*Erithacus rubecula*) and dunnock (*Prunella modularis*), while the adjacent mature trees offer potential roosting sites for bats, particularly if rot holes, cracks, or fissures are present. Invertebrates such as bees and butterflies may also utilise this habitat, particularly when the hawthorn is in bloom. Overall, this habitat offers moderate ecological value and acts as a commuting and foraging corridor, linking to other features within the site boundary.	 Image 4  Image 5

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		 Image 6
Habitat 3 : G4 Modified grassland	g4: HAB 3 is an area of poorly managed modified grassland located directly outside the front of Building B1. The grassland is predominately composed of common species such as perennial ryegrass (*Lolium perenne*), dandelion (*Taraxacum officinale*), and clover (*Trifolium spp.*), interspersed with patches of bare ground. The sward is patchy and indicates signs of neglect, with encroachment by ruderal species such as common nettle (*Urtica dioica*) and creeping thistle (*Cirsium arvense*). Within this grassland, there are six scattered mature remnant trees, including sycamore (*Acer pseudoplatanus*), horse chestnut (*Aesculus hippocastanum*), and lime (*Tilia spp.*), which provide structural diversity and potential for wildlife use. Though the grassland itself has limited ecological value due to its simplified species composition and poor condition, the mature trees contribute to the habitat's	 Image 7

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	suitability for nesting birds and foraging bats. The trees also provide opportunities for invertebrates such as moths and beetles. Retention and appropriate management of this habitat could enhance its value as part of the overall site's ecological network.	 Image 8

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Habitat 4 : U1b Developed land; sealed surface	U1b: HAB 4 consists of B1 and B2 as well as an open area of hardstanding. The area of developed land; sealed surface comprises a detached three-storey residential property (B1) which has been converted into multiple flats. The property also includes a basement and is set within an urban context. To the north of the site lies an open area of hardstanding used for access, along with a row of single-storey garages (B2) adjacent to the boundary. The site is entirely enclosed by boundary walls. This habitat does not provide any ecological importance.	 Image 9  Image 10

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		 Image 11  Image 12

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		 Image 13  Image 14

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		 Image 15 (showing PRF's)  Image 16  Image 17

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6 Evaluation and Assessment

6.1 Results from the desktop study and site survey were evaluated to assess the likelihood of occurrence for protected ecological features and species potential (as per Table 2.10.1). An evaluation of the potential impacts due to the proposed development and recommendations for appropriate mitigation measures are provided in Table 6.1.1.

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Protected Species Likelihood:

Protected feature or species: *Bats (roosting)*
Likelihood of occurrence or suitability: *Moderate*
Comments and justifications: *The crevices on Building B1 provide suitable roosting opportunities. No significant evidence of bats was observed, but gaps and damaged tiles in the roof of B1 may allow ingress for roosting.*
Impacts due to the proposed development: *Removal or disturbance to the buildings could directly affect any roosting bats.*
Required mitigation measures: *Conduct two bat activity surveys between May - August. Ensure compliance with licensing requirements and compensate for any loss of roosting habitat if bats are found.*

Protected feature or species: *Bats (foraging)*
Likelihood of occurrence or suitability: *Low to moderate*
Comments and justifications: *The hedgerow (HAB 2) and isolated trees could serve as foraging and commuting habitats, albeit limited in scope due to the urban setting.*
Impacts due to the proposed development: *Disturbance to foraging or commuting routes is unlikely but may occur if mature trees or boundary vegetation are removed.*
Required mitigation measures: *Retain and enhance boundary vegetation where possible. Implement sensitive lighting design to avoid disrupting bat activity.*

Protected feature or species: *Badgers*
Likelihood of occurrence or suitability: *Negligible*
Comments and justifications: *No setts, latrines, or paths were observed on-site. The urban context and site conditions are unsuitable for badgers.*
Impacts due to the proposed development: *None anticipated.*
Required mitigation measures: *No further action required.*

Protected feature or species: *Hedgehogs*
Likelihood of occurrence or suitability: *Low*
Comments and justifications: *Limited ground-level cover and foraging opportunities due to the predominantly hardstanding and poorly maintained grassland.*
Impacts due to the proposed development: *Site clearance activities could harm any hedgehogs present.*
Required mitigation measures: *Incorporate precautionary measures during vegetation clearance, including a staged cutting approach. Create wildlife corridors within landscaping plans.*
Protected feature or species: *Amphibians*

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Likelihood of occurrence or suitability: *Negligible*
Comments and justifications: *No waterbodies or suitable habitats are present on-site, limiting potential for amphibians.*
Impacts due to the proposed development: *None anticipated.*
Required mitigation measures: *No further action required.*

Protected feature or species: *Reptiles*
Likelihood of occurrence or suitability: *Negligible*
Comments and justifications: *The site lacks basking areas, varied vegetation structure, or refuge features conducive to supporting reptiles.*
Impacts due to the proposed development: *None anticipated.*
Required mitigation measures: *No further action required.*

Protected feature or species: *Otters*
Likelihood of occurrence or suitability: *Negligible*
Comments and justifications: *No watercourses or otter habitats are present on-site.*
Impacts due to the proposed development: *None anticipated.*
Required mitigation measures: *No further action required.*

Protected feature or species: *Water vole*
Likelihood of occurrence or suitability: *Negligible*
Comments and justifications: *No suitable water habitats for water voles are present on-site.*
Impacts due to the proposed development: *None anticipated.*
Required mitigation measures: *No further action required.*

Protected feature or species: *Dormice*
Likelihood of occurrence or suitability: *Negligible*
Comments and justifications: *The site lacks the required dense, connected woodland or hedgerow habitats for dormice.*
Impacts due to the proposed development: *None anticipated.*
Required mitigation measures: *No further action required.*

Protected feature or species: *Birds*
Likelihood of occurrence or suitability: *Moderate*
Comments and justifications: *Hedgerows, mature trees, and exterior elements of Building B1 offer potential nesting and foraging habitat for common bird species.*
Impacts due to the proposed development: *Nesting birds may be disturbed during vegetation clearance or building works.*

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Required mitigation measures: *Avoid vegetation or building works during the nesting season (March to August). Conduct pre-clearance nesting bird checks if works occur during this period. Enhance the site with bird boxes or native planting.*

Protected feature or species: *Invertebrates*
Likelihood of occurrence or suitability: *Low*
Comments and justifications: *Habitats on-site are limited in diversity, reducing opportunities for invertebrates. Trees and hedgerows may support small assemblages.*
Impacts due to the proposed development: *Loss of vegetation could reduce invertebrate habitat.*
Required mitigation measures: *Incorporate nectar-rich planting and retain mature trees where possible.*

Protected feature or species: *Invasive species*
Likelihood of occurrence or suitability: *Negligible*
Comments and justifications: *No evidence of invasive species such as Japanese knotweed (Fallopia japonica) was observed during the site visit.*
Impacts due to the proposed development: *None anticipated.*
Required mitigation measures: *No further action required.*

Protected feature or species: *Terrestrial mammals (general)*
Likelihood of occurrence or suitability: *Low*
Comments and justifications: *The site provides limited cover for terrestrial mammals, with hedgerows and trees offering some refuge for common species.*
Impacts due to the proposed development: *Minor disturbance to habitat connectivity if vegetation is removed.*
Required mitigation measures: *Retain boundary features where possible and incorporate wildlife-friendly landscaping.*

Protected feature or species: *Common and widespread mammals*
Likelihood of occurrence or suitability: *Low*
Comments and justifications: *Urban-adapted species such as fox (Vulpes vulpes) and grey squirrel (Sciurus carolinensis) may occasionally use the site.*
Impacts due to the proposed development: *Minor disturbance during works could displace individuals.*
Required mitigation measures: *Minimise disturbance during construction by restricting site activity to daylight hours. Include ecological enhancements such as planting native species or creating habitat piles.*

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Potential Impacts & Mitigation Recommendations:

The proposed development at the site has the potential to impact several protected and notable species and habitats, particularly in relation to roosting bats, nesting birds, and mature trees. The impacts of the development can be minimised through adherence to mitigation measures in line with current legislation, including the Wildlife and Countryside Act 1981 (as amended), the Conservation of Habitats and Species Regulations 2017 (as amended), and best practice guidance from the Chartered Institute of Ecology and Environmental Management (CIEEM). The following key considerations and recommendations should be taken into account to ensure compliance and minimise ecological harm:

- ***Protected Species:***
  - *Conduct two Dusk Emergence Surveys for B1, with follow-up surveys if necessary.*
  - *Avoid vegetation clearance or building works during the bird nesting season (March to August) unless a nesting bird check has been carried out by an ecologist.*
  - *Incorporate sensitive lighting to avoid disturbance to commuting and foraging bats.*

- ***Habitat Retention and Enhancement:***
  - *Retain and enhance the mature trees and hedgerows on-site to maintain connectivity and provide wildlife habitat.*
  - *Enhance the site with biodiversity-friendly features such as native tree and shrub planting, bird boxes, and bat boxes.*

- ***Construction-phase Measures:***
  - *Implement precautionary measures during site clearance, such as staged vegetation removal and hand searches, to protect terrestrial mammals such as hedgehogs.*
  - *Restrict construction activities to daylight hours to minimise disturbance to mammals such as foxes.*

- ***Invasive Species Management:***
  - *Ensure vigilance during further site works to identify any invasive species. Take action immediately in line with legal requirements if invasive species are encountered.*

- ***Compliance with Legislation:***
  - *Ensure all development activities adhere to the Wildlife and Countryside Act 1981 (as amended) and relevant EU-derived legislation, particularly concerning protected species.*
  - *Secure necessary licences prior to undertaking any works affecting bats or other protected species.*

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- Further Survey Efforts:

- Conduct additional ecological surveys where recommended to gather sufficient information for informed decision-making, particularly if evidence of protected species is identified during initial assessments.

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Table 6.1.1: Likelihood of occurrence of protected ecological features and species on-site, potential impacts due to the proposed development and recommendations for appropriate mitigation measures.

Protected feature / species	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measures
Protected sites	Negligible.	The site is not situated within, or adjacent to, any known protected sites. The site is not considered to be well connected to any known protected sites.	None.	None required.
Protected habitats	Negligible.	There were no protected habitats on, or adjacent to, the site. Habitats on-site were not considered to be unique or of high quality within the wider locality.	None.	None required.
Protected plant species	Low.	There are known records of protected plant species within 2km of the site. No protected plant species were observed during the site survey. Habitats on-site are not considered to be unique or of high quality to support protected plant species. However, their presence cannot be entirely discounted.	The site does not appear to support protected plant species, thus, the proposed development is unlikely to impact upon protected plant species.	None required.
Invasive plant species	Low.	No invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were found during the survey. As there were seasonal	Invasive plant species have the potential to impact protected species and habitats	If invasive plant species are found, it is recommended to consider appropriate methods of removal.

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Protected feature / species	Likelihood of occurrence / suitability	Comments / Justification	Impact due to Proposed Development	Required Mitigation Measures
		constraints to plant identification, it is possible that invasive plant species are present and have yet to be identified.		

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7 Biodiversity Enhancements

7.1 The development should be used as an opportunity for biodiversity enhancements, by creating new opportunities for wildlife.

BATS

7.2 It is recommended to install two bat boxes on-site. Bat boxes should be positioned in areas of low human disturbance, in spaces that are unshaded for most of the day.

7.3 A crevice bat box is suitable for smaller bat species. These boxes should also be positioned 3-5 metres above ground level, orientated southwards.

BIRDS

7.4 It is recommended to place two new bird boxes on-site.

7.5 A traditional nest box should be placed 3 metres above ground level in an area of low disturbance. The box should be sheltered away from prevalent weather conditions, commonly associated within the UK, such as strong sunlight, prevailing winds and rain.

INVERTEBRATES

7.6 It is recommended to install invertebrate boxes on-site. The boxes should be suitable for solitary bees.

7.7 Nectar-rich wildflowers should be planted within close proximity to the bee bricks/invertebrates boxes to create new opportunities for pollinators.

7.8 Fruit trees make ideal habitat for many invertebrate species. Thus, it is recommended to plant new garden ornamental fruit trees on-site. For example, Crab Apple (*Malus sylvestris*), Wild Cherry (*Prunus avium*) and Common Pear (*Pyrus communis*).

TERRESTRIAL MAMMALS

7.9 It is recommended to plant native species-rich hedgerows on-site, which will enhance connectivity and provide refuge for small mammals. Suitable species would include Common Beech (*Fagus sylvatica*), Common Hawthorn (*Crataegus monogyna*), Rowan (*Sorbus aucuparia*) and Crab Apple (*Malus sylvestris*) for example.

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TREES

7.10 New tree planting would be a welcomed addition to development. New tree planting should be considered carefully, with consideration to species, location and future management. New trees should be robust and of high quality. Where possible, native species should be used. However, considerations should be given to climate change and potential pathogens.

8 Conclusions

8.1 The proposed developments at 28 Edge Lane, Chorlton-cum-Hardy, Manchester, M21 9JY are currently unknown. However, it is anticipated that any future development will involve modifications to the existing residential property and associated structures on-site. Further clarification of the development plans will be required to fully assess potential ecological impacts.

8.2 The development will result in a loss of grassland, trees and developed land.

ECOLOGICAL CONSTRAINTS

8.3 Development proposals must have regard for protected species identified as potentially occurring on, or near to, the site (e.g., amphibians, birds, terrestrial mammals, and reptiles). Mitigation measures to protect these species have been produced within this report to ensure that the proposed works comply with relevant UK legislation.

8.4 Buildings B1 was considered to have moderate potential for roosting bats due to the presence of several PRFs which may be suitable for individual crevice dwelling bat species to utilise opportunistically (including gaps in external and internal brickwork, slipped roof tiles, lifted lead flashing, gaps between internal felt lining and roof).). The proposed works will result in the loss of PRFs, thus, further bat surveys will be required to determine bat presence/absence and inform on suitable mitigation measures.

8.5 Further mitigation measures have been outlined within the report to ensure that protected species are not impacted by the development. Ecological Clerk of Works (ECoW) supervision will be required throughout the construction phase to ensure that the recommended mitigation measures are implemented appropriately.

MITIGATION STRATEGIES

8.6 Two bat presence/absence surveys of B1 are to be carried out between May and August. The survey should consist of two dusk emergence surveys. The surveys must be undertaken by a suitably qualified ecologist. The survey report must outline bat presence/absence and suitable mitigation measures (if required). Further surveys may be required if bat presence/absence cannot be determined during the initial site visit.

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8.7 A tool box talk should be given to all relevant personnel by a suitable qualified ecologist before any works commence on-site to outline ecological constraints and the required mitigation measures.

8.8 Tree works (if required) should take place outside the breeding season (typically March-October) or once a suitability qualified ecologist has inspected the trees for breeding birds and confirmed that there are no active nests.

8.9 Construction works should be limited to daylight hours (excl. dawn and dusk) in order to prevent disturbance to nighttime foraging activity.

8.10 Any trenches or other excavations left open overnight should be well covered to deter Badgers from entering. If this is not possible, any trenches or other excavations left open overnight should either be provided with an escape ramp (comprised of a sloped side or wooden plank reaching up to ground level or slightly above), to allow any wildlife that falls in to escape.

8.11 Any necessary excavation of animal burrows should be done carefully to avoid unnecessary suffering (such as crushing or asphyxiation).

8.12 During hibernation season (October to March), piles of leaf litter and logs should be retained to ensure hibernating hedgehogs are not harmed. If removal is unavoidable, the piles must be carefully checked before burning.

8.13 Post-construction, the use of artificial lighting should be limited where possible. Motion sensors on outside lighting will prevent prolonged disturbance. It is recommended that outside lighting be set on short-timers (1 minute) and that the sensitivity is set to large moving objects only.

8.14 Any newly built boundary features should incorporate ‘wildlife gaps’ (comprising a 13x13cm gap at the base of the feature), to allow wildlife to pass through.

8.15 A new bat roost should be created on-site to offset the loss of PRFs. It is recommended that the roost be suitable for crevice dwelling species which are most likely to utilise the existing structures. Where possible, bat roosts should be incorporated into the proposed built footprint to ensure that permanent features are created.

BIODIVERSITY NET GAIN

8.16 The project is to be used as an opportunity for biodiversity net gain by creating new opportunities for wildlife. New habitat creation is to be implemented on-site and should be included within the final project design.

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8.17 A BNG assessment has been carried out using the statutory biodiversity metric (SBM). Data from the habitat conditions sheets was used to baseline the site at 1.79 habitat units and 0.05 hedgerow units.

8.18 Post development the site consists of 0.88 habitat units and 0.00 hedgerow units. This translates to a -51.10% loss in habitat units, and a -100.00% loss in hedgerow units.

8.19 The current plans do not result in the mandatory 10% gain, due to the size of the site, and the extent of the residential curtilage, there is insufficient area on site to offset the biodiversity net loss with habitat creation and enhancement.

8.20 Required actions: A 10% Biodiversity Net Gain is not achievable on site with the current proposed plans. There is a unit shortfall of 2.19 A1 tier habitat units and 0.12 H tier habitat units. Altering the proposed development could help minimise the habitat loss through the retention of on-site trees. However, an offsite biodiversity offset should be used to lower the biodiversity net loss on-site, offsite credits will also have to be purchased to the sum of 2.19 A1 tier habitat units and 0.12 H tier habitat units.

SUMMARY

8.21 Subject to the completion of the required bat survey and the implementation of the recommended mitigation measures, the proposed development is unlikely to have a significant ecological impact.

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Should you require any further information, please do not hesitate to contact us at any time.

Max Shaw
Ecological Consultant

Max Shaw

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Prepared by: Max Shaw BSc QCIEEM
Checked by: Connor S Johnston

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Appendix 1: Site Location and Assessment Boundary

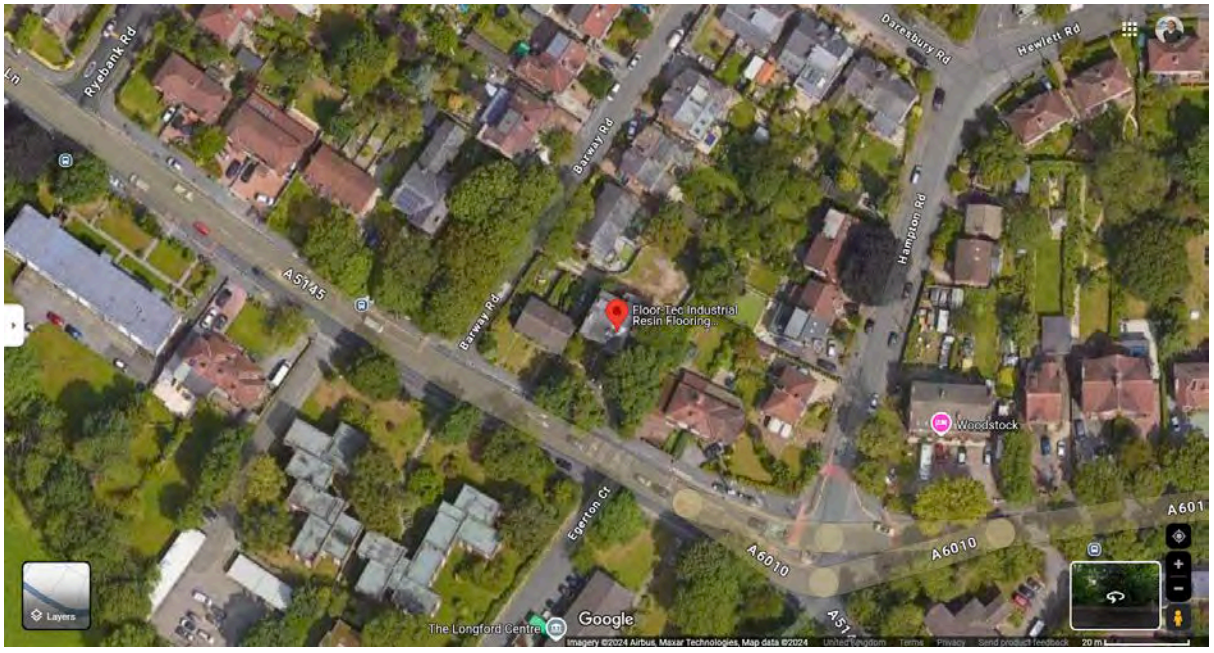


Figure A1.1: Extract from Google Maps showing the site location. (Google, 2023).



Figure A1.2: Extract from DEFRA MAGIC showing the assessment boundary. (MAGIC, 2023.)

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Appendix 2: Desktop Study

*Data from DEFRA.

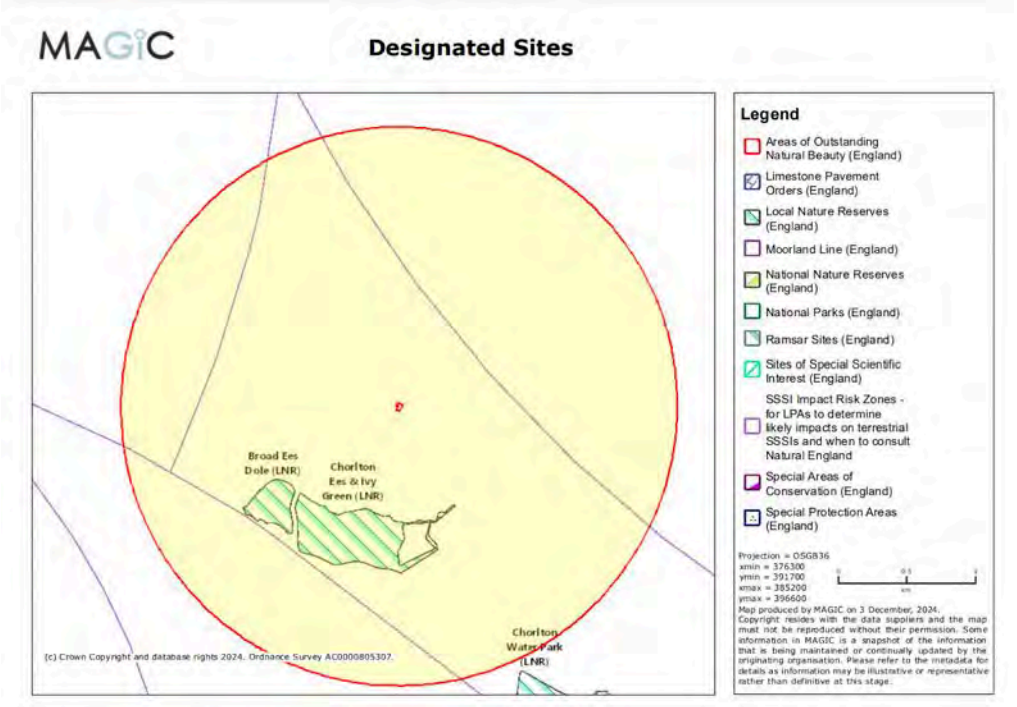


Figure A2.1: Location of Designated sites situated within a 2km search radius of the site.

*Data from DEFRA.

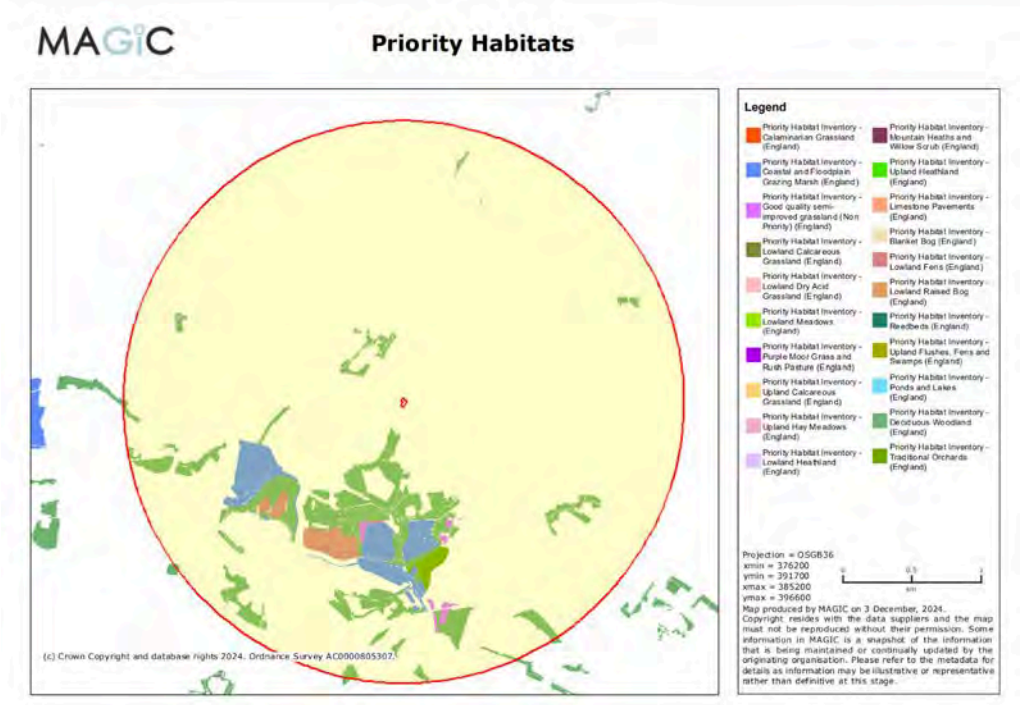


Figure A2.2: Priority habitats formerly mapped within a 2km search radius of the site.

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*Data from Bing Maps

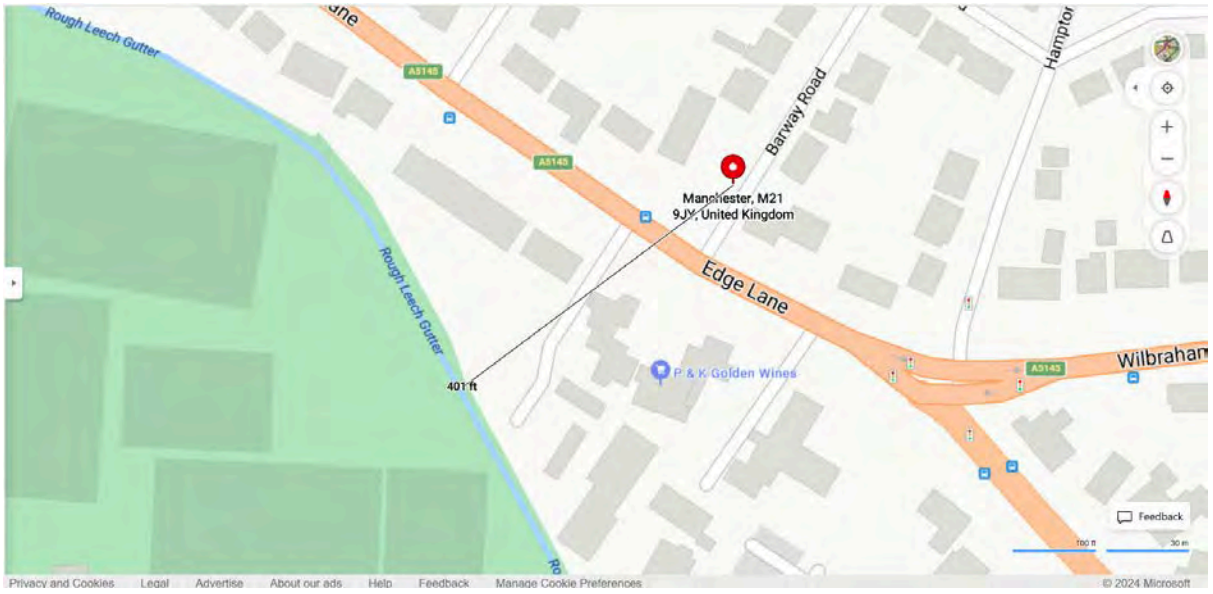


Figure A2.3: Standing water bodies formerly mapped within a 500m search radius of the site.

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Appendix 3: Site Maps

A3.1 The Site Habitat Map was produced in accordance with the UK Habitat Classification Manual (Butcher et al., 2020).



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BNG Baseline and Proposed Habitat Maps (17/1/24)



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