

Ramsden Farm, off Round Thorn Road, Middleton M24 1ZB

ECOLOGICAL SURVEY AND ASSESSMENT

September 2024

ERAP (Consultant Ecologists) Ltd Reference: 2024-242

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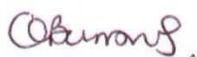
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Document Control

Survey Type:	Surveyors ¹	Survey Date(s)
Phase 1 Habitat Survey	Victoria Burrows B.Sc. (Hons) M.Sc. CEnv MCIEEM Principal Ecologist	24 th August 2024
Reporting	Personnel	Date
Author	Victoria Burrows B.Sc. (Hons) M.Sc. CEnv MCIEEM Principal Ecologist	1 st September 2024
Signature(s)		
Checked	DB	13 th September 2024
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¹ Licence reference numbers		
Bats		
Victoria Burrows, Natural England Class Survey Licence (bats, Level 2) Registration Number 2015-10390-CLS-CLS		

SUMMARY

Introduction and Scope

- i. This ecological survey and assessment has been prepared for the site at Ramsden Farm. Middleton M24 1ZB. The assessment was requested in connection with a planning application proposing the construction of three new detached residential dwellings and associated landscaping.
- ii. This report presents the results of a desktop study and data search, an extended Phase 1 Habitat Survey and a licensed daytime bat walkover survey carried out in August 2024. The survey was carried out by an appropriately licensed, qualified and experienced ecologist and is in accordance with standard, recognised survey guidelines. The scope of survey undertaken is appropriate to identify potential ecological constraints, the remit of mitigation required and opportunities for biodiversity associated with the development proposals.

Results of Survey and Assessment and Recommendations

- iii. The approximately 0.58 hectare site is located to the south-east of Middleton town centre and comprises an area of land sandwiched between the rear of existing properties at Round Thorn Road and four recently built properties on the north side of Ramsden Farm road. The site comprises an area of land that was partially previously used as a site compound during the construction of the existing four detached properties at Ramsden Farm. Since the completion of construction, the ground over part of the site has been levelled and areas have been seeded with a wildflower grassland. Along the southern margin of the site is a steep mound colonised by secondary woodland of Sycamore with a Bramble understorey.
- iv. The proposals will have no adverse direct or indirect effect on statutory or non-statutory designated sites for nature conservation.
- v. No semi-natural habitat, Priority Habitat or irreplaceable habitat is present at the site. With the exception of the single Indian Balsam plant (which was destroyed) no other invasive plant species listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were detected at the site.
- vi. In consideration of the importance of the habitat at the site in a geographical context¹ it is advised that the woodland is of 'local' value. It is considered that areas of more species-rich grassland (i.e. Habitat 1) are of 'local' value, although in the absence of any current secured management the value of the grassland will deteriorate as the self-seeded shrubs, particularly Broom, colonise.
- vii. The eight urban trees and the other areas of grassland are of value at the 'site' level and it is considered that enhancement is feasible with the appropriate management. The small area of Bramble scrub and the sparse ruderal / ephemeral herbs are not considered to hold any importance on a geographical scale.
- viii. The clearance of trees, shrubs and Bramble scrub will result in the loss of opportunities for use by nesting birds including common and widespread species typically associated with urban areas and Priority Species, such as dunnock. Mandatory measures to be applied to ensure the protection of nesting birds during and prior to the site preparation works are described at **Section 5.3** and recommendations for the

¹ Using the terms presented at Section 4.7 of *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018), i.e. International and European, National, Regional, Local Authority-wide area, River Basin District, Estuarine system / Coastal cell or Local. The term 'site' value is additionally used to highlight ecological features considered to be of importance in the context of the wider site habitats, but which are of negligible value in the context of the local area.

enhancement of the site and the accommodation of provisions for nesting birds, including conservation priorities and target species, are detailed at **Section 5.2**.

- ix. Guidance in relation to best practice measures for the protection of other wildlife including Priority Species such as hedgehog during site preparation and construction operations is outlined in **Sections 5.2** and **5.3**.
- x. Appropriate and proportionate survey effort and / or assessment, in accordance with standard survey guidelines, has been applied to discount adverse effects on other relevant protected species. No further surveys for other protected species are necessary to inform a planning application.

Conclusion

- xi. This ecological survey and assessment has demonstrated that the development proposals at the site are feasible and acceptable in accordance with ecological considerations and the National Planning Policy Framework (NPPF).
- xii. Importantly, the mitigation hierarchy has been applied and, in the presence of the mandatory actions and best practice measures described in **Section 5.0**, adverse effects on protected species are reasonably discounted. The proposals will have no impact on designated sites for nature conservation. The site layout accommodates the conservation of habitats of greatest ecological value, and / or secures enhancement or compensatory planting where habitats are impacted.
- xiii. Enhancement measures that aim to maximise the benefits for biodiversity as part of the proposals and comply with Statutory BNG (refer to the separate *Assessment of Biodiversity Net Gain* (ERAP (Consultant Ecologists) Ltd, 2024)), the NPPF and *Biodiversity Net Gain: Good Practice Principles for Development* (CIEEM, 2016) are feasible, secured by the site design and are outlined in **Section 5.2**.

1.0 INTRODUCTION

1.1 Background and Rationale

- 1.1.1 ERAP (Consultant Ecologists) Ltd was commissioned to carry out an ecological assessment of land at Ramsden Farm Middleton M24 1ZB (hereafter referred to as the 'site'). The Ordnance Survey (OS) grid reference at the centre of the site is SD 87702 05393. An aerial image of the site and its surrounding habitats is appended at **Figure 1** (source image: ESRI World Imagery).
- 1.1.2 The assessment was requested in connection with a planning application proposing the construction of three new detached residential dwellings and associated landscaping.

1.2 Scope of Works

- 1.2.1 The scope of ecological works undertaken in August 2024 comprised:
- A desktop study and data search for known ecological information at the site and the local area;
 - An Extended Phase 1 Habitat Survey and assessment, and assessment of the habitats present at the site using the UK Habitats Classification;
 - Assessment of the ecological value of the habitats within the site with the use of the National Vegetation Classification (NVC) and the Ratcliffe criteria, as presented in *A Nature Conservation Review* (Ratcliffe, 1977);
 - A daytime bat walkover survey for bats, which has comprised a ground level tree assessment;
 - Survey and assessment of all habitats for relevant statutorily protected species² and other wildlife including badger (*Meles meles*), bird species and reptiles;
 - The identification of any potential ecological constraints on the proposals and the specification of the scope of mitigation and ecological enhancement required in accordance with wildlife legislation, planning policy guidance and other relevant guidance; and
 - The identification of any further surveys or precautionary actions that may be required prior to the commencement of any construction activities.
- 1.2.2 This ecological survey and assessment has also informed the completed *Assessment of Biodiversity Net Gain* (ERAP (Consultant Ecologists) Ltd, 2024) using *The Statutory Biodiversity Metric Calculation Tool* (Natural England, 2023). The completed Microsoft Excel spreadsheet assessment is presented as a separate document, named 'ERAP Ltd 2024-242 Statutory Biodiversity Calculation Tool_27.08.24', hereafter referred to as the 'BNG Metric'.

² In accordance with *Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and Their Impact on the Planning System* (Ministry of Housing, Communities & Local Government, 2005) developers should not be required to undertake surveys for protected species unless there is reasonable likelihood of the species being present and affected by the development. In this instance the site is located on the margins of an urbanised area and there are no ponds within an unobstructed 500 metre radius of the site, and no water bodies or water courses within or immediately adjacent to the site; there has been no requirement to consider great crested newt (*Triturus cristatus*), water vole (*Arvicola amphibius*) or otter (*Lutra lutra*) or other riparian fauna as part of this assessment.

2.0 METHOD OF SURVEY

2.1 Desktop Study and Data Search

2.1.1 The following sources of information and ecological records were consulted:

- a. MAGiC Maps: A web-based interactive map which brings together geographic information on key environmental schemes and designations, including details of statutory nature conservation sites;
- b. Ancient Tree Inventory (Woodland Trust, 2024): An online database of ancient and veteran trees;
- c. The Greater Manchester Local Record Centre (GMLRC); and
- d. Greater Manchester Biodiversity Action Plan (BAP).

2.1.2 The *Arboricultural Impact Assessment in Relation to Proposed Three-Unit Residential Development at Ramsden Farm, Roundthorn Road, Middleton, Greater Manchester M24 1ZB* (Bowland Tree Consultancy Limited, 2024) has been referred to.

2.2 Vegetation and Habitats

2.2.1 An Extended Phase 1 Habitat Survey of the site was carried out by Victoria Burrows B.Sc. (Hons) M.Sc. CEnv MCIEEM on 24th August 2024. The weather conditions were mostly dry (there was a brief heavy shower partway through the survey) with sunny intervals, a light breeze (Beaufort scale 2) and an air temperature of 17°C.

2.2.2 A habitat and vegetation map was prepared for the site and the immediate surrounding area and is appended at **Figure 2**. The mapping is based on the Joint Nature Conservation Committee Phase 1 Habitat Survey methodology (JNCC, 2010) with minor adjustments to illustrate and examine the habitats with greater precision.

2.2.3 The plant species within the site boundary were determined with estimates of the distribution, ground cover, abundance and constancy of individual species. The estimation of abundance was based on the DAFOR system, where D = Dominant, A = Abundant, F = Frequent, O = Occasional and R = Rare, this being a widely used and accepted system employed by ecological surveyors. The terms L = Locally and V = Very were additionally used to describe the plant species distributions with greater precision.

2.2.4 Stands of vegetation and habitats were described and evaluated using the National Vegetation Classification (NVC). The NVC provides a systematic and comprehensive analysis of British vegetation and is a reliable framework for nature conservation and land-use planning.

2.2.5 Habitats within the site were assessed in accordance with *The UK Habitat Classification Version 2.0* (UKHab Ltd, 2023). The UK Habitat Classification, or 'UKHab' has been designed to function at two scales of minimum mappable unit (MMU): fine scale (25m² or 5 metres length) and large scale (400m² or 20 metres length). It has been considered for the purposes of this survey that the fine scale of 25m² or 5 metres length MMU is appropriate.

2.2.6 Searches were made for uncommon, rare and statutorily protected plant species, those species listed as protected in the *Wildlife and Countryside Act 1981* (as amended) and species which are indicators of important and uncommon plant communities. Plant nomenclature follows *New Flora of the British Isles 3rd Edition* (Stace, 2010).

- 2.2.7 Searches were carried out for the presence of invasive species, including those listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended), including Japanese Knotweed (*Fallopia japonica*), Indian Balsam (*Impatiens glandulifera*) and Giant Hogweed (*Heracleum mantegazzianum*).

2.3 Animal Life

Badger

- 2.3.1 The survey area for badger covered the site (as annotated on **Figure 2**) and extended to accessible land within a radius of 50 metres from the site boundary. Private gardens beyond the site boundary were excluded from the survey.
- 2.3.2 The survey was conducted in accordance with guidance presented within *Badgers and Development* (Natural England, 2007) and *Badgers: advice for making planning decisions* (Natural England, 2024).
- 2.3.3 The following signs of badger activity were searched for:
- Sett entrances, e.g. entrances that are normally 25 to 35cm in diameter and shaped like a 'D' on its side;
 - Large spoil heaps outside sett entrances;
 - Bedding outside sett entrances;
 - Badger footprints;
 - Badger paths;
 - Latrines;
 - Badger hairs on fences or bushes;
 - Scratching posts; and
 - Signs of digging for food.
- 2.3.4 Habitats within and surrounding the site were assessed in terms of their suitability for use by foraging and sheltering badger in accordance with their known habitat preferences as detailed in current guidance and *Badger* (Roper, 2010).

Bat Species

Survey Personnel

- 2.3.5 The site was assessed for its suitability to support foraging and roosting bats by Victoria Burrows (Natural England Class Survey Licence WML CL18 (Bat Survey Level 2), Registration Number 2015-10390-CLS-CLS). Victoria's qualifications and experience meet the criteria as defined in the *Technical Guidance Series Competencies for Species Survey: Bats* (CIEEM, 2013).

Habitat Assessment for Commuting / Foraging Bats

- 2.3.6 Habitats within and adjacent to the site were assessed for their value and suitability for commuting and foraging bats in accordance with Table 4.1 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)* (Collins, J. (ed), 2023). Reference has been made to the categories, descriptions and examples presented in **Table 2.1**.

Table 2.1: Consideration of Suitability of Foraging and Commuting Habitat for Bats

Suitability	Potential Flight Paths and Foraging Habitats
None	No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade / protection for flight-lines, or generate/shelter insect populations available to foraging bats).
Negligible ^a	No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.
Low	Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.
^a Negligible is defined as 'so small or unimportant as to be not worth considering, insignificant'. This category may be used where there are places that a bat could roost or forage (due to one attribute) but it is unlikely that they actually would (due to another attribute).	

Preliminary Roost Assessment

2.3.7 There are no buildings or other structures at the site.

Ground Level Tree Assessment

2.3.8 A ground level tree assessment was carried out at all trees to assess their suitability for use by roosting bats, and to inform whether further surveys or precautionary measures were required.

2.3.9 The survey was carried out in accordance with standard methodology including the *Bat Mitigation Guidelines* (Mitchell-Jones, 2004), the *Bat Workers' Manual 3rd Edition* (Mitchell-Jones & Mcleish, 2004) and *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)* (Collins, J. (ed), 2023).

2.3.10 Trees were assessed from the ground using binoculars and a high-powered torch. Each tree was searched for the presence of the following features:

Woodpecker holes, rot holes, hazard beams, other vertical or horizontal cracks or splits in stems and branches, partially decayed platey bark, knot holes, man-made holes, tear-outs, cankers in which cavities have developed, other hollows or cavities, including butt-rots, double-leaders forming compression forks with included bark, gaps between overlapping stems or branches, partially detached Ivy (Hedera helix) with stem diameters in excess of 50mm and bat, bird or dormouse (Muscardinus avellanarius) boxes.

2.3.11 A list of equipment used is detailed in **Table 2.2**.

Table 2.2: Survey Equipment used during Daytime Bat Survey

Ladders
LED Lenser P14 torch
Canon Ixus digital camera
8x20 binoculars
Ridgid Micro Inspection Camera Borescope CA-100

2.3.12 Terms used to describe any features present follow (where possible) those outlined and described in *Bat Tree Habitat Key, 2nd Edition* (Andrews, H (ed), 2013) and *Bat Roosts in Trees: A Guide to Identification and Assessment for Tree-care and Ecology Professionals* (BTHK, 2018).

2.3.13 Trees have been assessed and described using the categories presented at Tables 4.2 and 6.2 of *Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edn)*, (Collins, J. (ed), 2023), as presented in **Table 2.3**.

Table 2.3: Definition of Terms and Suitability Categories Used in Tree Survey for Roosting Bats

Terms and Suitability Categories	Description
PRF	Potential Roost Feature
None	Either no PRFs in the tree(s) or highly unlikely to be any.
FAR	Further Assessment Required to establish if PRFs are present in the tree
PRF-I	PRF is only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.

2.3.14 The requirement for further presence / absence surveys at each tree was then considered.

Bird Species

2.3.15 Bird species observed and heard during the survey were recorded.

2.3.16 Habitats throughout the site and in the immediate surrounding area were assessed for their value to roosting, feeding and nesting birds, as indicated by the amount of shelter, feeding value, woody vegetation structure and species diversity of tree and shrub species in the site.

Reptile Species

2.3.17 The site and its surroundings were assessed in terms of their suitability for use by reptile species using the important characteristics for reptiles outlined in the draft document *Reptile Mitigation Guidelines* (Natural England, 2011), and the *Reptile Habitat Management Handbook* (Edgar, et al., 2010). These habitat characteristics are outlined in **Table 2.4**.

Table 2.4: Important Habitat Characteristics for Reptiles

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

Other Wildlife

- 2.3.18 Evidence of other wildlife observed whilst on site, but for which specific surveys were not made, was recorded and has been included in this report where it is considered of relevance to the planning application. Habitats have been assessed for their suitability for use by Priority Species identified in the data search results where this is considered relevant to the application.

2.4 Survey and Reporting Limitations

- 2.4.1 No access or other survey limitations on the intended scope of survey were experienced.
- 2.4.2 All measurements within this report are approximate only, and have been estimated whilst on site or calculated using mapping software (QGIS) or internet-based mapping services such as MAGiC Maps and Google Earth.

2.5 Evaluation Methods

- 2.5.1 The habitats, vegetation and animal life were evaluated with reference to standard nature conservation criteria as described in *A Nature Conservation Review* (Ratcliffe, 1977). These are size (extent), diversity, naturalness, rarity, fragility, typicality, recorded history, position in an ecological or geographical unit, potential value and intrinsic appeal.
- 2.5.2 Habitats have been assessed to determine whether they meet those described in *UK Biodiversity Action Plan: Priority Habitat Descriptions* (Maddock, A (ed), 2008); these lists are used to help draw up the statutory lists of Priority Habitats, as required under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006*. Where suitable, the ecological value of the habitats present has been assessed using the terms outlined in *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018). Each habitat and individual trees have been assessed to determine whether they are 'irreplaceable habitat', defined in *National Planning Policy Framework* (Department for Levelling Up, Housing and Communities, 2023)³ as 'Habitats which would be technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, taking into account their age, uniqueness, species diversity or rarity. They include ancient woodland, ancient and veteran trees, blanket bog, limestone pavement, sand dunes, salt marsh and lowland fen'. The further detail presented in *The Biodiversity Gain Requirements (Irreplaceable Habitat) Regulations 2024* (GOV.UK, 2023) draft document has also been referred to.
- 2.5.3 Government advice on wildlife, as set out in the NPPF and associated government circulars has been taken into consideration. Legislation relating to protected species, such as those listed under Schedules 1, 5, 6 and 8 of the *Wildlife and Countryside Act 1981* (as amended) and *The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*, is referenced where applicable, and any impacts to protected species are evaluated in accordance with current guidance.
- 2.5.4 The presence of any Priority Species, as listed under Section 41 of the *Natural Environment and Rural Communities (NERC) Act 2006* is noted, and habitats are assessed in terms of their suitability and value for these species. The presence of habitats and / or species listed by the Greater Manchester Biodiversity Action Plans has been taken into account in the evaluation of the site.

³Hereafter the NPPF

3.0 SURVEY RESULTS

3.1 Desktop Study and Data Search

Statutory Designated Sites for Nature Conservation and SSSI Impact Risk Zones

- 3.1.1 The site is not and does not form part of any statutory designated site for nature conservation.
- 3.1.2 The site lies within a Site of Special Scientific Interest (SSSI) Impact Risk Zone for Rochdale Canal SSSI and Special Area of Conservation (SAC) located 1.1 kilometres east of the site and designated for its aquatic plant diversity including the presence of Floating Water-plantain (*Luronium natans*), a nationally scarce plant and European protected species.
- 3.1.3 The SSSI Impact Risk Zone requires the Local Planning Authority to consult with Natural England on likely risks from the following development categories (Ordnance Survey, 2024):
- Pipelines, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals.
 - Planning applications for quarries, including: new proposals, Review of Minerals Permissions, extensions, variations to conditions etc. Oil and gas exploration / extraction.
 - Any industrial / agricultural development that could cause air pollution (including: industrial processes, livestock and poultry units with floorspace greater than 500m², slurry lagoons greater than 200m² and manure stores greater than 250 tonnes).
 - General combustion processes greater than 20 megawatt energy input. Including: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis / gasification, anaerobic digestion, sewage treatment works, other incineration / combustion.
 - Landfill. Including: inert landfill, non-hazardous landfill, hazardous landfill.
 - Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Including: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.
 - Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.
- 3.1.4 The proposals do not meet any of the development categories which would require further consultation with Natural England on likely risks from the proposed development to the statutory designated sites for nature conservation present in the wider area.

Non-statutory Designated Sites for Nature Conservation

- 3.1.5 The site is not and does not form part of any non-statutory designated site for nature conservation, called Site of Biological Importance (SBI) in Greater Manchester.
- 3.1.6 One SBI is located within a 1 kilometre radius from the centre of the site, and is summarised in **Table 3.1**.

Table 3.1: SBI Within a 1 Kilometres Radius from the Centre of the Site

SBI Name	Distance and Direction from the Site	Reasons for Designation
Alkrington Woods and Rhodes Lodges	0.82 kilometres west	Habitat Mosaics (HM1)

Priority Habitats Inventory

- 3.1.7 The Priority Habitats Inventory⁴ was checked via MAGiC Maps. No Priority Habitats are identified at or adjacent to the site by the inventory.

Ancient Tree Inventory

- 3.1.8 No ancient or veteran trees are identified at the site by the inventory.

Protected and Notable Species

- 3.1.9 Greater Manchester Local Record Centre (GMLRC) hold three species records at the site, two records of spotted flycatcher (*Muscicapa striata*) and one record of starling (*Sturnus vulgaris*); both species are Priority Species.
- 3.1.10 Records of protected and notable species for a 1 kilometres radius from the centre of the site are summarised in **Table 3.2**.

Table 3.2: Records of Protected Species Within a 1 Kilometres Radius from the Centre of the Site

Taxon Group	Species Name and Designations ¹ and Notes
Birds – WCAs1	Kingfisher (<i>Alcedo atthis</i>): WCAs1. 18 records, dated between 2005 and 2022. The closest record is 50 metres to the east of the site, and from 2022.
	Peregrine (<i>Falco peregrinus</i>): WCAs1. 1 record from 2013, located 355 metres to the south-east of the site.
Birds - PS	PS Only: Bullfinch (<i>Pyrrhula pyrrhula</i>), dunnoek (<i>Prunella modularis</i>), herring gull (<i>Larus argentatus</i>), house sparrow (<i>Passer domesticus</i>), lesser redpoll (<i>Carduelis cabaret</i>), linnet (<i>Linaria cannabina</i>), song thrush (<i>Turdus philomelos</i>), spotted flycatcher (<i>Muscicapa striata</i>), starling (<i>Sturnus vulgaris</i>).
Terrestrial Invertebrates	PS Only: Buff ermine (<i>Spilosoma luteum</i>), dot moth (<i>Melanchra persicariae</i>), mouse moth (<i>Amphipyra tragopoginis</i>), white-letter hairstreak (<i>Satyrium w-album</i>)
Terrestrial Mammals	Soprano pipistrelle (<i>Pipistrellus pygmaeus</i>): EPS, WCAs5, PS and GMBAP. 1 record from 2021, located 770 metres to the north-west of the site.
	Bat sp. (Order <i>Chiroptera</i>): EPS, WCAs5 and GMBAP. 1 record from 1999, located 480 metres to the west of the site.
	Brown long-eared bat (<i>Plecotus auritus</i>): EPS, WCAs5, PS and GMBAP. 2 records, both from 2021. The closest record is 770 metres to the north-west of the site.
	Common pipistrelle (<i>Pipistrellus pipistrellus</i>): EPS, WCAs5 and GMBAP. 21 records, dated between 2006 and 2022. The closest record is 150 metres to the south-east of the site, and from 2010.
	Hedgehog (<i>Erinaceus europaeus</i>): PS. 13 records, dated between 2019 and 2022. The closest record is 180 metres to the south-west of the site, and from 2019.
	Myotis sp. (<i>Myotis</i> sp.): EPS, WCAs5 and GMBAP. 1 record from 2021, located 770 metres to the north-west of the site.
	Noctule bat (<i>Nyctalus noctula</i>): EPS, WCAs5, PS and GMBAP. 1 record from 2021, located 770 metres to the north-west of the site.
	Pipistrelle sp. (<i>Pipistrellus</i> sp.): EPS, WCAs5 and GMBAP. 71 records, dated between 1996 and 2020. The closest record is 50 metres to the south-east of the site, and from 2012.
	Whiskered bat (<i>Myotis mystacinus</i>): EPS, WCAs5 and GMBAP. 1 record from 2010, located 850 metres to the east of the site.

⁴ A spatial dataset that describes the geographic extent and location of Natural Environment and Rural Communities Act (2006) Section 41 habitats of principal importance.

Taxon Group	Species Name and Designations ¹ and Notes
¹ Key to Designation Codes: EPS = European Protected Species under <i>The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019</i> . WCAs1 = Species receives full protection under Schedule 1 of the <i>Wildlife and Countryside Act 1981</i> (as amended). WCAs5 = Species receives full protection under Schedule 5 of the <i>Wildlife and Countryside Act 1981</i> (as amended). PS = Priority Species listed under Section 41 of the <i>NERC Act 2006</i> . GMBAP = Species listed on the <i>Greater Manchester Biodiversity Action Plan</i> .	

- 3.1.11 The presence of these protected and notable species within the wider area has been taken into account throughout this report.

3.2 Vegetation and Habitats

General Description

- 3.2.1 The approximately 0.58 hectare site is located to the south-east of Middleton town centre and comprises an area of land sandwiched between the rear of existing properties at Round Thorn Road and four recently built properties on the north side of Ramsden Farm road.
- 3.2.2 The site comprises an area of land that was partially previously used as a site compound during the construction of the existing four detached properties at Ramsden Farm. Since the completion of construction, the ground over part of the site has been levelled and areas have been seeded with a wildflower grassland. Along the southern margin of the site is a steep mound colonised by secondary woodland of Sycamore (*Acer pseudoplatanus*) with a Bramble (*Rubus fruticosus* agg.) understorey.
- 3.2.3 The site is bordered by existing development to the south and west. The access road (Ramsden Farm) to the existing four properties lies to the north. Off-site land to the east comprises a mosaic of unmanaged grassland Bramble scrub, Indian Balsam, mixed scrub and scattered trees leading down to Wince Brook which is over 90 metres away from the site boundary.
- 3.2.4 A Phase 1 Habitat Survey is appended at **Section 9.0: Figure 2**. Photographs are appended in **Section 8.1: Table 8.1**.

Habitat 1: Seeded Neutral Wildflower Grassland

- 3.2.5 Refer to **Photo 1**. Along the northern margin of the site is an area (0.0763ha) of seeded wildflower grassland. The grassland is characterised by constant and abundant Crested Dog's-tail (*Cynosurus cristatus*) and Ribwort Plantain (*Plantago lanceolata*) and constant and frequent Wild Carrot (*Daucus carota*). Other frequent species comprise Red Fescue (*Festuca rubra*), Ox-eye Daisy (*Leucanthemum vulgare*), White Clover (*Trifolium repens*), Common Cat's-ear (*Hypochaeris radicata*), Common Bent (*Agrostis capillaris*) and Rough Meadow-grass (*Poa trivialis*). The floristic composition also includes occasional Viper's Bugloss (*Echium vulgare*), Canadian Fleabane (*Erigeron canadensis*), Common Ragwort (*Senecio jacobaea*), locally frequent Common Knapweed (*Centaurea nigra*) and Red Clover (*Trifolium pratense*) and very locally frequent Salad Burnet (*Sanguisorba minor*). A plant species list is appended at **Section 8.2: Table 8.2**.
- 3.2.6 The grassland is indicative of an MG6 *Lolium perenne* – *Cynosurus cristatus* community of the NVC (Rodwell, 1992) and most appropriately described by the UKHab as g3c6 *Lolium*- *Cynosurus* neutral grassland.

Habitat 2: Sparsely Vegetated Land

- 3.2.7 Refer to **Photo 2**. At the eastern end of Ramsden Farm road the more compacted ground with shallow sandy soil is colonised by a sparse cover of ruderal and ephemeral herbs characterised by frequent Creeping Thistle (*Cirsium arvense*), Creeping Bent (*Agrostis stolonifera*) and Annual Meadow-grass (*Poa annua*) with locally frequent Knotgrass (*Polygonum aviculare*), Shepherd's-purse (*Capsella bursa-pastoris*), Canadian Fleabane and Common Ragwort. A plant species list is appended at **Section 8.2: Table 8.3**.
- 3.2.8 Within the vegetation the OV19 *Poa annua* - *Matricaria perforata* community of the NVC (Rodwell, 2000) is evident. The sparse vegetation is described by the UKHab as u – urban with the secondary code 81 ruderal / ephemeral.

Habitat 3: Mixed Woodland

- 3.2.9 Refer to **Photo 3**. Along the southern margin of the site the land rises steeply to form a bund that slopes steeply down from its highest point to meet the rear garden fences of the houses off Round Thorn Road. The bund is colonised by an unmanaged woodland belt with a closed canopy of constant and abundant Sycamore (*Acer pseudoplatanus*) with frequent Field Maple (*Acer campestre*), Ash (*Fraxinus excelsior*) and rare Spruce (*Picea* sp.) with dense shrubs of Hawthorn (*Crataegus monogyna*) and Lilac (*Syringa* sp.), ornamental conifers, Franchet's Cotoneaster (*Cotoneaster franchetii*) and Bramble (*Rubus fruticosus* agg.) scrub.
- 3.2.10 Where the Bramble is less dense the understorey is characterised by stands of Creeping Soft-grass (*Holcus mollis*), Yorkshire-fog (*Holcus lanatus*) and Rough Meadow-grass. A plant species list is appended at **Section 8.2: Table 8.4**.
- 3.2.11 The vegetation is not indicative of an NVC community. Vegetation is described by the UK hub as w1h – other woodland – mixed secondary code 521 unmanaged.

Habitat 4 and 6: Neutral Grassland and Habitat 5: Neutral Grassland with Broom

- 3.2.12 Refer to **Photos 4 to 6**. The grasslands elsewhere at the site do not appear to be seeded in origin and comprise neutral grassland characterised by a higher cover of grass species (when compared with Habitat 1) such as abundant Cock's-foot, frequent Rough Meadow-grass, Sweet Vernal-grass, Crested Dog's-tail and Red Fescue with locally frequent Common Bent, Ribwort Plantain, occasional Broad-leaved Dock (*Rumex obtusifolius*), Common Sorrel *Rumex acetosa*), Common Ragwort, Common Bird's-foot-trefoil (*Lotus corniculatus*) and Common Cat's-ear. A plant species list is appended at **Section 8.2: Table 8.5**.
- 3.2.13 Habitat 5 on the more sleeping ground is heavily covered with self-seeded Broom (*Cytisus scoparius*) shrubs.
- 3.2.14 The grassland is indicative of a grassland in transition between a MG6 *Lolium perenne* – *Cynosurus cristatus* community and an MG1b *Arrhenatherum elatius*, *Festuca rubra* sub-community the NVC (Rodwell, 1992) and most appropriately described by the UKHab as g3c6 Lolium- Cynosurus neutral grassland.

Habitat 7: Bramble Scrub

- 3.2.15 Towards the southwestern tip of the site is a small (0.0044ha) stand of Bramble scrub to form the W24 *Rubus fruticosus-Holcus lanatus* community of the NVC (Rodwell, 1991) and habitat h3d Bramble scrub of the UKHab with the secondary code 521 unmanaged.

Habitats 8 and 9: Individual Urban Trees

- 3.2.16 Refer to **Photos 7 to 10**. Within the grassland (Habitat 6) are 8 individual urban trees defined as ‘small’ by *The Statutory Biodiversity Metric. User Guide* (Defra, July 2024). Species are:

T7: 1 Goat Willow (*Salix caprea*);

T8, T9, T10, T13 and T14: Silver Birch (*Betula pendula*);

T11 and T12: Cherry species (*Prunus* sp.).

- 3.2.17 The vegetation is not indicative of a specific NVC community.

Invasive Plant Species

- 3.2.18 One plant of Indian Balsam (refer to **Photo 11**) was recorded in the site on the survey data. The plant was hand-pulled, crushed and left *in-situ* (it had not set seed). Stands of Indian Balsam are extensive in the off-site land to the east of the site on the land sloping down to Wince Brook.
- 3.2.19 No Japanese Knotweed or other invasive plant species listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were detected at the site.

3.3 Animal Life

Badger

- 3.3.1 No setts or signs of badger were detected in the site and surveyed area during the survey. The presence of badger is reasonably discounted.

Bat Species

Habitat Assessment for Commuting / Foraging Bats

- 3.3.2 The woodland, grassland and areas of scrub within the site are suitable for use by foraging bats and provide habitat connectivity across the site. These habitats are assessed to be of ‘moderate’ suitability for use by foraging and commuting bats. The site habitats complement the more extensive areas of grassland, scrub, wetland and trees within the Wince Brook valley to the east of the site which are assessed to be of ‘high’ suitability for the attraction of commuting and foraging bats (refer to **Figure 1**).

Ground Level Tree Assessment

- 3.3.3 None of the trees and shrubs support features suitable for use by roosting bats; all are assessed to have a suitability of ‘none’.

Bird Species

- 3.3.4 Bird species observed at the site during the survey comprised a magpie (*Pica pica*) and a black-headed gull (*Chroicocephalus ridibundus*). The trees, shrubs and Bramble scrub at the southern site margin are

suitable for use by nesting birds, including Priority Species such as song thrush (*Turdus philomelos*) and dunnock (*Prunella modularis*). This is considered further at **Section 4.4**, below.

Reptiles

- 3.3.5 Although the open grassland and Bramble scrub habitats at the site are suitable for reptiles such as slow-worm, the site has previously been disturbed by construction operations and there are no reported records of reptile species in this area of Greater Manchester (refer to **Table 3.2**). The presence of reptiles within the site is reasonably discounted.

Other Wildlife

- 3.3.6 Meadow butterfly (*Maniola jurtina*) and common field grasshopper (*Chorthippus brunneus*) were frequently observed in the more herb-rich grassland at Habitat 1 during the survey; both are common and widespread species in the UK.
- 3.3.7 Habitats at the site are suitable for use by feeding and sheltering roe deer (*Capreolus capreolus*) and Priority Species such as hedgehog (*Erinaceus europaeus*); this is considered in **Sections 4.4** and **5.0**.

4.0 EVALUATION AND ASSESSMENT

4.1 Introduction and Description of Proposals

- 4.1.1 The proposals comprise the construction of three new attached residential properties with associated gardens on the southern side of Ramsden Farm road. Access will be via the existing Ramsden Farm road, off Round Thorn Road.
- 4.1.2 Ecological guidance has been provided to the design team throughout the preparation of the proposals, including the *Landscape Proposal Rev A* (TBA Landscape Architects, 2024). The guidance has secured the implementation of the mitigation hierarchy and the demonstration of net gain in accordance with the statutory BNG requirements (refer to *Assessment of Biodiversity Net Gain* (ERAP (Consultant Ecologists) Ltd, 2024)).
- 4.1.3 This report also advises on how compliance with Chapter 15, paragraph 186(d) of the *National Planning Policy Framework* (NPPF) (Department for Levelling Up, Housing and Communities, 2023) can be achieved, which states ‘opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate’ and aims to demonstrate compliance with *Biodiversity Net Gain: Good Practice Principles for Development* (CIEEM, 2016).
- 4.1.4 **Section 4.2** provides an assessment of any impacts of the proposed development on the designated sites for nature conservation present in the wider area. The ecological value of habitats within the site is evaluated at **Section 4.3**, and protected and notable species are considered at **Section 4.4**.

4.2 Designated Sites for Nature Conservation

- 4.2.1 It is considered that the distance from the site and the absence of hydrological connectivity to any designated sites for nature conservation present in the wider area is such that the proposals can be achieved with no risk of a direct or indirect effect on any statutory and non-statutory designated sites for nature conservation.

4.3 Vegetation and Habitats

- 4.3.1 None of the habitats present are representative of Priority Habitat, semi-natural habitat or are classed as irreplaceable habitat. No rare or uncommon plant species were found at the site.
- 4.3.2 With the exception of the single Indian Balsam plant (which was destroyed) no other invasive plant species listed on Schedule 9 of the *Wildlife and Countryside Act 1981* (as amended) were detected at the site.
- 4.3.3 In consideration of the importance of the habitat at the site in a geographical context⁵ it is advised that the woodland is of 'local' value.
- 4.3.4 It is considered that areas of more species-rich grassland (i.e. Habitat 1) are of 'local' value, although in the absence of any current secured management the value of the grassland will deteriorate as the self-seeded shrubs, particularly Broom, colonise.
- 4.3.5 The eight urban trees and the other areas of grassland are of value at the 'site' level and it is considered that enhancement is feasible with the appropriate management. The small area of Bramble scrub and the sparse ruderal / ephemeral herbs are not considered to hold any importance on a geographical scale.
- 4.3.6 As outlined in the *Assessment of Biodiversity Net Gain* (ERAP (Consultant Ecologists) Ltd, 2024) an area (0.06ha) of the species-rich wildflower grassland will be removed to accommodate the proposals. All areas of woodland will be 'retained' however as this habitat will be brought into private ownership / management it is 'lost' in accordance with the rules of the BNG Metric. As outlined in **Section 5.2** to compensate for the habitat losses and to work towards securing statutory BNG the retained habitats outside of private ownership will be enhanced by the application of appropriate management to be secured by a habitat management plan.

4.4 Protected Species and Other Wildlife

Bat Species

- 4.4.1 No features with suitability or use by roosting bats have been found at the site. No further surveys for roosting bats are required to comply with relevant survey guidance and to inform the planning application.
- 4.4.2 **Section 5.2** recommends the installation of opportunities for use by roosting bats at the new dwellings this is considered to provide net gains for biodiversity and additionality in accordance with *Biodiversity Net Gain: Good Practice Principles for Development* (CIEEM, 2016).
- 4.4.3 Inappropriate use of artificial lighting around the exterior of the new dwellings may have an adverse effect on use of the local area by foraging bats and other wildlife. Guidance to avoid a significant impact on foraging bats and to conserve and enhance habitats for use by foraging bats is provided at **Section 5.2**.

Bird Species

- 4.4.4 The clearance of trees, shrubs and Bramble scrub will result in the loss of opportunities for use by nesting birds including common and widespread species typically associated with urban areas and Priority Species, such as dunnock. Mandatory measures to be applied to ensure the protection of nesting birds during and

⁵ Using the terms presented at Section 4.7 of *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018), i.e. International and European, National, Regional, Local Authority-wide area, River Basin District, Estuarine system / Coastal cell or Local. The term 'site' value is additionally used to highlight ecological features considered to be of importance in the context of the wider site habitats, but which are of negligible value in the context of the local area.

prior to the site preparation works are described at **Section 5.3** and recommendations for the enhancement of the site and the accommodation of provisions for nesting birds, including conservation priorities and target species, are detailed at **Section 5.2**.

Other Animal Life

- 4.4.5 Appropriate and proportionate survey effort and / or assessment, in accordance with standard survey guidelines, has been applied to discount adverse effects on other relevant protected species. No further surveys for other protected species are necessary to inform a planning application.
- 4.4.6 Guidance in relation to best practice measures for the protection of other wildlife including Priority Species such as hedgehog during site preparation and construction operations is outlined in **Sections 5.2** and **5.3**.

5.0 RECOMMENDATIONS AND ECOLOGICAL ENHANCEMENT

5.1 Introduction

- 5.1.1 The recommendations described below are appropriate and proportionate to the scale of the development proposals and aim to ensure that the proposals are implemented in accordance with the mitigation hierarchy, statutory BNG requirements, relevant wildlife legislation, Natural England guidance, the principles of the *National Planning Policy Framework* (NPPF) (Department for Levelling Up, Housing and Communities, 2023), local planning policy and best practice.
- 5.1.2 The recommendations aim to ensure compliance with Chapter 15, paragraph 186(d) of the NPPF which states:

‘opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate’.

5.2 Site Design and Enhancements for Biodiversity

Landscape Strategy and Habitat Management

- 5.2.1 Ecological guidance has been provided to the design team throughout the preparation of the proposals, including the *Landscape Proposal Rev A* (TBA Landscape Architects, 2024). The guidance has secured the implementation of the mitigation hierarchy and the demonstration of net gain in accordance with the statutory BNG requirements (refer to *Assessment of Biodiversity Net Gain* (ERAP (Consultant Ecologists) Ltd, 2024)).
- 5.2.2 To secure ecological enhancements, statutory net gain and compliance with the NPPF and best practice the following recommendations have been accommodated by the *Landscape Proposal*:
 - a. Enhancement of the retained areas of woodland (Habitat 3) outside of private ownership this is likely to involve activities such as removal of non-native species, supplementary planting to increase the diversity of native species, removal of trees with Ash die-back and increasing the amount of deadwood;
 - b. Enhancement of retained grasslands at Habitats 5 and 6 by control / removal of scrub and management to create a varied sward height;

- c. Enhancement of Bramble scrub at Habitat 7 by overplanting with native shrub species to create mixed scrub;
- d. Maximised tree planting in appropriate areas of the site including tree planting on the margins to provide habitat connectivity function; and
- e. Maximised use of native species and species known to be of value for the attraction of wildlife to a garden habitat.

5.2.3 A long-term habitat management plan with an appropriate monitoring regime is required to secure the condition of the habitats that lie ownership of private residential ownership in the long-term.

Landscape Planting within the Gardens

5.2.4 Any landscape planting scheme to be prepared for the gardens of the new properties should make use of native species but where necessary non-native species known to be attractive to invertebrates should be used.

5.2.5 Planting schemes that include flowering species such as *Viburnum*, *Ceanothus*, *Hebe*, *Lavandula*, *Lonicera*, *Potentilla*, *Rosmarinus* and *Vinca* can maximise opportunities for feeding invertebrates and for the attraction of foraging bats and birds. Other appropriate plants to include within the landscaping scheme include night-scented flowers which will attract moth species and bats; a list of suggested species is presented at **Table 5.1**.

Table 5.1: Recommended Plants for Use in Gardens to Attract Bats⁶

Flowers for Borders	
Aubretia species (<i>Aubretia</i> sp.)	Michaelmas Daisy (<i>Aster</i> sp.)
Candytuft (<i>Iberis sempervirens</i>)	Night-scented Stock (<i>Matthiola longipetala</i>)
Cherry pie (<i>Heliotropium arborescens</i>)	Oxeye Daisy (<i>Leucanthemum vulgare</i>)
Corncockle (<i>Agrostemma githago</i>)	Fiddleneck (<i>Phacelia tanacetifolia</i>)
Cornflower (<i>Centaurea cyanus</i>)	Poached Egg Plant (<i>Limnanthes douglasii</i>)
Corn Marigold (<i>Glebionis segetum</i>)	Primrose sp. (<i>Primula</i> sp.)
Corn Poppy (<i>Papaver rhoeas</i>)	Red Campion (<i>Silene dioica</i>)
Coneflower species (<i>Echinacea</i> sp.)	Common Valerian (<i>Valeriana officinalis</i>)
Bluebell (<i>Hyacinthoides non-scripta</i>)	Scabious species (<i>Scabiosa</i> sp.)
Evening primrose (<i>Oenothera biennis</i>)	St John's Wort species (<i>Hypericum</i> sp.)
Honesty (<i>Lunaria annua</i>)	Sweet William (<i>Dianthus barbatus</i>)
Ice plant 'Pink lady' (<i>Delosperma cooperi</i>)	Tobacco Plant species (<i>Nicotiana</i> sp.)
Knapweed species (<i>Centaurea</i> sp.)	Vervain species (<i>Verbena</i> sp.)
Mallow species (<i>Malva</i> sp.)	Wallflower species (<i>Erysimum</i> sp.)
Mexican aster (<i>Cosmos bipinnatus</i>)	
Herbs	
Wild Angelica (<i>Angelica sylvestris</i>)	Hyssop (<i>Hyssopus officinalis</i>)
Bergamot (<i>Monarda didyma</i>)	Lavender species (<i>Lavandula</i> sp.)
Borage (<i>Borago officinalis</i>)	Lemon Balm (<i>Melissa officinalis</i>)
Coriander (<i>Coriandrum sativum</i>)	Marjoram (<i>Origanum majorana</i>)
English Marigold (<i>Calendula officinalis</i>)	Rosemary (<i>Rosmarinus officinalis</i>)
Fennel (<i>Foeniculum vulgare</i>)	Sweet Cicely (<i>Myrrhis odorata</i>)
Feverfew (<i>Tanacetum parthenium</i>)	Thyme species (<i>Thymus</i> sp.)

⁶ Extracted from the BCT publication 'Encouraging bats, A guide for bat-friendly gardening and living' (Bat Conservation Trust, 2016).

Provisions for Wildlife

Enhancing Habitats for Roosting Bats

- 5.2.6 It is recommended that the development incorporates the installation of three bat access panels at the three new buildings (one on each property).
- 5.2.7 The bat access panels should be sited at least 4 metres above ground level, ideally facing or close to areas of retained habitats / landscape planting. The access panels should not be positioned over windows or doorways where bat droppings may become a nuisance. An ecologist should advise on appropriate positions for the bat access panels. Suitable bat access panels are available from NHBS Ecology (www.nhbs.com), Wild Care (www.wildcare.co.uk) and / or Greenwood's Ecohabitats (www.greenwoodsecohabitats.co.uk) and are presented at **Insert 1**.



Insert 1: Examples of integrated bat access panels and an externally mounted box⁷

Accommodation of Opportunities for Nesting Birds: House Sparrow

- 5.2.8 To enhance the opportunities for use by nesting birds at the site the installation of three house sparrow terraces⁸ at the new buildings is recommended. Boxes should not be positioned over windows or doorways where droppings may become a nuisance. RSPB advice states that boxes should ideally be sited facing north to east, to avoid exposure to direct sunlight, which may cause overheating of chicks in the nest. Examples of suitable house sparrow nest boxes are presented at **Insert 2**:



Insert 2: Schwegler 1SP House Sparrow Nesting Terrace (left) and Vivara Pro WoodStone House Sparrow Box (right). Both are available from www.NHBS.com

⁷ Left to right: IBstock Enclosed Bat Box 'c' (left); Habibat Bat Access Panels (centre left and centre right) and Greenwood's Ecohabitat's two crevice bat box (right). Products with a brick face are illustrated, however the Habibat bat access panels can be supplied unfaced to enable the addition of matching material.

⁸ House sparrow is a Priority Species associated with suburban areas. Monitoring suggests a severe decline in the UK house sparrow population, estimated as dropping by 71 per cent between 1977 and 2008 with large falls in both rural and urban populations (RSPB, 2023).

Maintenance of Habitat Connectivity Throughout the Developed Site

- 5.2.9 To ensure habitat connectivity is maintained as part of the development proposals, gaps within the proposed fencing / gates to allow access by other wildlife (including hedgehog) should be incorporated across the site; example accesses (0.15m by 0.15m) are presented at **Insert 3** as reproduced from *Hedgehogs and Development* (British Hedgehog Preservation Society / PTES, 2019).



Insert 3: Showing wildlife access gap within fencing

Appropriate Use of Lighting

- 5.2.10 Paragraph 191(c) in Chapter 15 (conserving and enhancing the natural environment) of the NPPF states that development should:

“limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation”

- 5.2.11 It is advised that any external lighting to be installed at the site should involve the use of appropriate products and screening, where necessary, to ensure no excessive artificial lighting shines over the adjacent habitats and areas of landscape planting / habitat creation as lighting overspill may deter use by wildlife such as foraging bats.
- 5.2.12 The lighting scheme should be designed with reference to current guidance, namely:
- Guidance Note 08/23: Bats and Artificial Lighting at Night* (Institution of Lighting Professionals & Bat Conservation Trust, 2023); and
 - Bats and lighting: Overview of current evidence and mitigation guidance (Stone, 2014).

5.3 Guidance on the Protection of Features Prior to / During the Construction Phase

Demarcation of the Working Area and Protection of Trees and Shrubs

- 5.3.1 During the construction phase, temporary protective demarcation fencing will be used to protect the trees, shrubs and vegetation to be retained. The fencing must extend outside the canopy of the retained trees and must remain in position until the end of the construction period.
- 5.3.2 The fencing will be in accordance with BS5837:2012 *Trees in Relation to Design, Demolition and Construction: Recommendations* (BSI, 2012), as needed.

Protection of Nesting Birds

- 5.3.3 All wild birds are protected under the *Wildlife and Countryside Act 1981* (as amended) while they are breeding. It is advised works such as vegetation removal that will affect habitats suitable for use by nesting

birds are scheduled to commence outside the bird nesting season. Commencement of works in the nesting season must be informed by a pre-works nesting bird survey, carried out by a suitably experienced ecologist. The bird breeding season typically extends between March to August inclusive.

- 5.3.4 If breeding birds are detected / present it is recommended that the area is left undisturbed until it is confirmed that the young birds have fledged / the nest is no longer active. Guidance from an ecologist should be sought, as needed.

Biosecurity

- 5.3.5 To ensure no invasive or undesirable plant species are introduced to the site and local area it is essential that plant and machinery to be brought to the site is clean and clear of plant material and excessive mud and other materials. Contractors must not accept any hired plant or machinery onto the site that contains plant material or excessive mud / earth cover.
- 5.3.6 Owing to the presence of Indian Balsam in the off-site land to the east (including the area to be enhanced to secure statutory BNG (refer to *Assessment of Biodiversity Net Gain* (ERAP (Consultant Ecologists) Ltd, 2024)) guidance on biosecurity will apply during these works too.

Other Fauna

- 5.3.7 In accordance with best practice, during the site preparation and construction operations it is essential that the following best practice and Reasonable Avoidance Measures are applied:
 - a. No trenches must be left open overnight. Trenches or holes must be covered with a board or fitted with a means of escape (such as ramped edge or a sloping plank of timber). This will ensure that any inquisitive animals do not become trapped;
 - b. Any pipes must be stored with caps on (to prevent animal entry);
 - c. No fires must be lit at the site; and
 - d. Any chemicals or harmful materials must be stored so that they cannot be accessed by inquisitive animals.

6.0 CONCLUSION

- 6.1 This ecological survey and assessment has demonstrated that the development proposals at the site are feasible and acceptable in accordance with ecological considerations and the National Planning Policy Framework.
- 6.2 Importantly, the mitigation hierarchy has been applied and, in the presence of the mandatory actions and best practice measures described in **Section 5.0**, adverse effects on protected species are reasonably discounted. The proposals will have no impact on designated sites for nature conservation. The site layout accommodates the conservation of habitats of greatest ecological value, and / or secures enhancement or compensatory planting where habitats are impacted.
- 6.3 Enhancement measures that aim to maximise the benefits for biodiversity as part of the proposals and comply with Statutory BNG, the NPPF and *Biodiversity Net Gain: Good Practice Principles for Development* (CIEEM, 2016) are feasible, secured by the site design and are outlined in **Section 5.2**.

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8.0 APPENDIX 1: TABLES

8.1 Photographs

Table 8.1: Photographs

	
Photo 1: Habitat 1: Other neutral grassland / seeded wildflower grassland	Photo 2: Habitat 2: Sparsely vegetated land
	
Photo 3: Habitat 3: Wooded belt	Photo 4: Habitat 4: Other neutral grassland
	
Photo 5: Habitat 5: Other neutral grassland with Broom scrub	Photo 6: Habitat 6: Other neutral grassland and individual trees



Photo 7: Habitats 8 and 9: Individual trees



Photo 8: Habitats 8 and 9: Individual trees



Photo 9: Habitats 8 and 9: Individual trees



Photo 10: Habitats 8 and 9: Individual trees



Photo 11: Single Indian Balsam plant (removed and destroyed)

8.2 Plant Species Lists

Table 8.2: Plant Species List for Seeded Wildflower Grassland (Habitat 1)

Scientific Name	Common Name	DAFOR ¹	Cover
<i>Achillea millefolium</i>	Yarrow	LF	2%
<i>Agrostis capillaris</i>	Common Bent	F	5%
<i>Alfalfa</i> sp.	<i>Alfalfa</i> species	R	<1%
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	F	5%
<i>Arrhenatherum elatius</i>	False Oat-grass	VLA	1%
<i>Centaurea nigra</i>	Common Knapweed	LF	2%
<i>Cerastium fontanum</i>	Common Mouse-ear	VLF	<1%
<i>Cirsium arvense</i>	Creeping Thistle	O	<1%
<i>Cirsium vulgare</i>	Spear Thistle	O	<1%
<i>Cynosurus cristatus</i>	Crested Dog's-tail	A*	20%
<i>Daucus carota</i>	Wild Carrot	F*	10%
<i>Echium vulgare</i>	Viper's Bugloss	O	
<i>Erigeron canadensis</i>	Canadian Fleabane	O	<1%
<i>Festuca rubra</i>	Red Fescue	F	5%
<i>Holcus lanatus</i>	Yorkshire-fog	F/LA	20%
<i>Hypericum</i> sp.	St. John's-wort species	O	<1%
<i>Hypochaeris radicata</i>	Common Cat's-ear	F	2%
<i>Leucanthemum vulgare</i>	Ox-eye Daisy	F	5%
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil	VLA	1%
<i>Phleum pratense</i>	Timothy	VLF	1%
<i>Plantago lanceolata</i>	Ribwort Plantain	A*	20%
<i>Poa trivialis</i>	Rough Meadow-grass	F	5%
<i>Rumex acetosa</i>	Common Sorrel	R	<1%
<i>Sanguisorba minor</i>	Salad Burnet	VLF	<1%
<i>Senecio jacobaea</i>	Common Ragwort	O	<1%
<i>Silene vulgaris</i>	Bladder Campion	R	<1%
<i>Trifolium dubium</i>	Lesser Trefoil	VLF	<1%
<i>Trifolium pratense</i>	Red Clover	LF	2%
<i>Trifolium repens</i>	White Clover	F	5%
<i>Vulpia bromiodes</i>	Squirreltail Fescue	VLF	<1%

¹Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species

Table 8.3: Plant Species List for Sparsely Vegetated Land (Habitat 2)

Scientific Name	Common Name	DAFOR ¹	Cover
Woody Species			
<i>Buddleia davidii</i>	Butterfly-bush	O	<1%
<i>Cytisus scoparius</i>	Broom	R	<1%
<i>Quercus</i> sp.	Oak (sapling)	R	<1%
<i>Salix caprea</i>	Goat Willow (sapling)	O	<1%
<i>Salix cinerea</i>	Grey Willow (sapling)	R	<1%
Herb Species			
<i>Achillea millefolium</i>	Yarrow	R	<1%
<i>Agrostis capillaris</i>	Common Bent	LF	<1%
<i>Agrostis stolonifera</i>	Creeping Bent	F	5%
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	VLF	<1%
<i>Arrhenatherum elatius</i>	False Oat-grass	LF	1%
<i>Capsella bursa-pastoris</i>	Shepherd's-purse	LF	<1%
<i>Centaureum erythraea</i>	Common Centaury	R	<1%
<i>Cerastium fontanum</i>	Common Mouse-ear	VLF	<1%
<i>Chamerion angustifolium</i>	Rosebay Willowherb	R	<1%
<i>Cirsium arvense</i>	Creeping Thistle	F	25%
<i>Cirsium vulgare</i>	Spear Thistle	R	<1%
<i>Cynosurus cristatus</i>	Crested Dog's-tail	LF	1%
<i>Dactylis glomerata</i>	Cock's-foot	O	<1%
<i>Elytrigia repens</i>	Common Couch-grass	LF	5%
<i>Epilobium hirsutum</i>	Great Willowherb	VLF	<1%
<i>Erigeron canadensis</i>	Canadian Fleabane	LF	<1%
<i>Festuca rubra</i>	Red Fescue	VLF	<1%
<i>Holcus lanatus</i>	Yorkshire-fog	VLF	1%
<i>Hypochaeris radicata</i>	Common Cat's-ear	O	<1%
<i>Impatiens glandulifera</i>	Indian Balsam	R	<1%
<i>Leontodon autumnalis</i>	Autumn Hawkbit	R	<1%
<i>Lolium perenne</i>	Perennial Rye-grass	VLF	<1%
<i>Medicago lupulina</i>	Black Medick	VLF	<1%
<i>Phleum pratense</i>	Timothy	R	<1%
<i>Plantago lanceolata</i>	Ribwort Plantain	O	<1%
<i>Poa annua</i>	Annual Meadow-grass	F	1%
<i>Poa pratensis</i>	Smooth Meadow-grass	VLF	<1%
<i>Poa trivialis</i>	Rough Meadow-grass	VLA	<1%
<i>Polygonum aviculare</i>	Knotgrass	LF	<1%
<i>Ranunculus repens</i>	Creeping Buttercup	O	<1%
<i>Rubus fruticosus</i> agg.	Bramble	R	<1%
<i>Rumex crispus</i>	Curled Dock	O	<1%
<i>Scrophularia nodosa</i>	Common Figwort	R	<1%
<i>Senecio jacobaea</i>	Common Ragwort	LF	2%
<i>Senecio vulgare</i>	Groundsel	R	<1%
<i>Sonchus asper</i>	Prickly Sow-thistle	R	<1%
<i>Taraxacum officinale</i> agg.	Dandelion	O	<1%
<i>Trifolium pratense</i>	Red Clover	R	<1%
<i>Trifolium repens</i>	White Clover	VLA	1%
<i>Tripleurospermum inodorum</i>	Scentless Mayweed	R	<1%
<i>Tussilago farfara</i>	Colt's-foot	VLF	<1%
<i>Urtica dioica</i>	Common Nettle	R	<1%

¹Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species

Table 8.4: Plant Species List for Mixed Woodland (Habitat 3)

Scientific Name	Common Name	DAFOR ¹	Cover
Woody Species			
-	Ornamental Conifer species	LA	5%
<i>Acer campestre</i>	Field Maple	F	5%
<i>Acer pseudoplatanus</i>	Sycamore	A*	40%
<i>Cotoneaster franchetti</i>	Franchet's Cotoneaster	VLA	1%
<i>Crataegus monogyna</i>	Hawthorn	F	5%
<i>Cytisus scoparius</i>	Broom	F	2%
<i>Fraxinus excelsior</i>	Ash	F	10%
<i>Ilex aquifolium</i>	Holly	O	2%
<i>Picea</i> sp.	Blue Spruce	R	1%
<i>Prunus laurocerasus</i>	Cherry Laurel	LA	5%
<i>Prunus</i> sp.	Cherry species	LF	5%
<i>Prunus spinosa</i>	Blackthorn	LF	2%
<i>Syringa</i> sp.	Lilac species	LA	5%
Herb Species			
<i>Arrhenatherum elatius</i>	False Oat-grass	F	5%
<i>Holcus lanatus</i>	Yorkshire-fog	F	10%
<i>Holcus mollis</i>	Creeping Soft-grass	LA	10%
<i>Phalaris arundinacea</i>	Reed Canary-grass	R	<1%
<i>Poa trivialis</i>	Rough Meadow-grass	F	5%
<i>Rubus fruticosus</i> agg.	Bramble	A*	70%
¹ Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species			

Table 8.5: Plant Species List for Other Neutral Grassland (Habitats 4, 5 and 6)

Scientific Name	Common Name	DAFOR ¹	Cover
Woody Species			
<i>Betula pendula</i>	Silver Birch (saplings)	R	<1%
<i>Cytisus scoparius</i>	Broom	LA/F	25%
Herb Species			
<i>Achillea millefolium</i>	Yarrow	VLF	<1%
<i>Agrostis capillaris</i>	Common Bent	LF	5%
<i>Agrostis stolonifera</i>	Creeping Bent	LF	1%
<i>Anthoxanthum odoratum</i>	Sweet Vernal-grass	F	5%
<i>Cirsium vulgare</i>	Spear Thistle	R	<1%
<i>Cynosurus cristatus</i>	Crested Dog's-tail	F	5%
<i>Dactylis glomerata</i>	Cock's-foot	A*	60%
<i>Erigeron canadensis</i>	Canadian Fleabane	O	<1%
<i>Festuca rubra</i>	Red Fescue	F	5%
<i>Holcus lanatus</i>	Yorkshire-fog	F	5%
<i>Hypochaeris radicata</i>	Common Cat's-ear	O	1%
<i>Leucanthemum vulgare</i>	Ox-eye Daisy	R	<1%
<i>Lotus corniculatus</i>	Common Bird's-foot-trefoil	O	<1%
<i>Medicago lupulina</i>	Black Medick	VLF	<1%
<i>Plantago lanceolata</i>	Ribwort Plantain	LF	1%
<i>Poa annua</i>	Annual Meadow-grass	F	2%
<i>Poa trivialis</i>	Rough Meadow-grass	F	15%
<i>Prunella vulgaris</i>	Self-heal	VLF	<1%
<i>Ranunculus repens</i>	Creeping Buttercup	VLA	1%
<i>Rumex acetosa</i>	Common Sorrel	O	<1%
<i>Rumex obtusifolius</i>	Broad-leaved Dock	O	<1%
<i>Senecio jacobaea</i>	Common Ragwort	O	<1%
<i>Trifolium repens</i>	White Clover	VLF	<1%

¹Key to DAFOR: D=Dominant, A=Abundant, F=Frequent, O=Occasional, R=Rare, V=Very, L=Local and *denotes a constant species

9.0 FIGURES

Figure 1: Aerial Image of the Site and its Surroundings

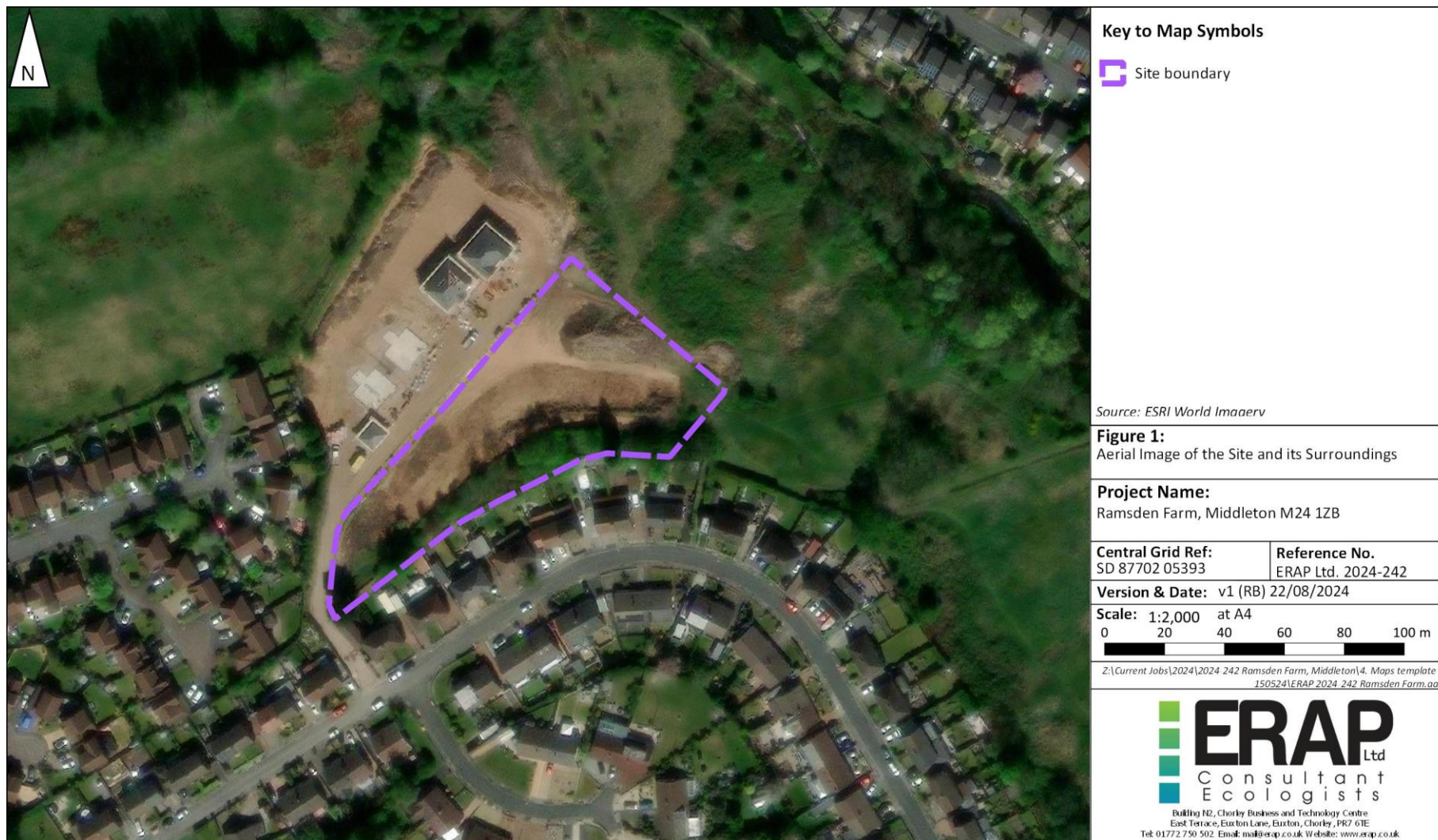


Figure 2: Phase 1 Habitat Survey



Figure 3: UKHab: Baseline Habitats

