



Brighter strategies
for greener projects



Client: Muse Places and Wythenshawe Community Housing Group

Project: Wythenshawe, Brotherton House

Report: Preliminary Ecological Appraisal

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1.0 EXECUTIVE SUMMARY

Greengage Environmental Limited (Greengage) was commissioned by Muse Places and Wythenshawe Community Housing Group (WCHG) to undertake a Preliminary Ecological Appraisal (PEA) of an area of land known as Brotherton House in Wythenshawe, Greater Manchester, hereafter referred to as 'the site'.

This document is a report of the PEA and has been produced to inform a planning application for the site which includes the “*Erection of extra care apartments (Use Class C2) older living apartments, and dwellinghouses (Use Class C3), car and cycle parking, landscaping and other associated works following demolition of existing buildings*”.

This PEA aims to establish the presence of, or potential for, designated sites and legally protected/priority habitats and species at the site or within the zone of influence i.e. the ecological constraints, assess likely impacts based on design stage proposals/assumptions and subsequently to provide recommendations for additional targeted surveys and/or appropriate mitigation measures in accordance with the mitigation hierarchy, where applicable. Ecological enhancement recommendations have also been provided.

The site extends to approximately 1.77 hectares (ha) and is centred on Ordnance Survey National Grid Reference (OS NGR): SJ 82256 87190, OS Co-ordinates 382256 , 387190.

Habitats present across the site consisted of the following UK Hab categories.

- Developed land; sealed surface;
- Buildings;
- Build up areas and gardens; and,
- Modified grassland.

Ecological Constraints and Additional Surveys/Mitigation Recommendations

The below designated sites, habitats and species have been confirmed to be present or have potential to be present due to suitable habitats on the site. Sections 4.0 and 5.0 of the PEA report should be referred to for full details.

Table 1.1 Ecological Constraints and Recommendations

Ecological Constraint	Level of Suitability/Confirmed Presence	Additional Surveys/Mitigation Recommendations (Summary)
Non-statutory designated sites		
Site of Biological Interest (SBI)	Present (within 2km of site)	Five SBI's observed within 2km of the site boundary. Considerable distance between the site and SBI's warrants no additional mitigation.

Ecological Constraint	Level of Suitability/Confirmed Presence	Additional Surveys/Mitigation Recommendations (Summary)
Habitats		
Local priority habitat	Present (within 1km of site)	Deciduous Woodland was observed within 1km of the site boundary. Considerable distance between the site and local priority habitat warrants no additional mitigation.
Species		
Amphibians (great crested newt <i>Triturus cristatus</i> (GCN) and other native species)	Negligible	There are no water bodies on site, and any in the surrounding area exceed GCN typical dispersal range. Furthermore, the site offers no connectivity to other suitable habitats that may support GCN or other amphibian species.
Badger <i>Meles meles</i>	Negligible	The site contains some foraging opportunities for badger in the form of shrubs and grassland, however vegetation present on site is unlikely to support sett building. Furthermore, there is little connectivity between the site and other potential habitats in the surrounding area.
Bats (foraging/commuting)	Low	Habitat on the site provides some foraging opportunity for bats and should be retained where possible. During works sensitive lighting scheme should be implemented for both the construction and operational phase of development. Lighting design should follow guidance provided by Bat Conservation Trust and Institution of Lighting Professionals (ILP) Bats and Artificial Lighting at Night.
Bats (roosting -summer/transitional - buildings/structures)	Low	Buildings of low suitability for roosting were identified on the site therefore further surveys are required to confirm the presence/likely absence of bats roosting in buildings carried out during active bat season (May-August), in suitable weather conditions.
Birds	High	Trees, vegetation and structures provide nesting opportunities for birds on the site (excluding ground nesting birds). Nesting bird check(s) to be undertaken by a suitably experienced ecologist no

Ecological Constraint	Level of Suitability/Confirmed Presence	Additional Surveys/Mitigation Recommendations (Summary)
		more than 48 hours prior to vegetation clearance, where vegetation removal cannot be programmed to avoid March to August inclusive. In the instance of identification of an active nest, an exclusion zone is to be agreed and adhered to until an ecologist has monitored and confirmed that chicks have fledged/the nest is no longer in use.
Dormouse <i>Muscardinus avellanarius</i>	Negligible	In the absence of vegetation, there are no foraging or nesting opportunities for this species. Presence of predators such as fox <i>Vulpes vulpes</i> on the site may act as a deterrent for dormouse.
Fish	Negligible	There are no water bodies in site for fish to inhabit.
Reptiles (widespread species)	Negligible	Though there is terrestrial habitat that may offer basking and foraging opportunities for reptiles, there is no hibernacula present. Furthermore, the site offers no connectivity to other potential habitats.
Riparian mammals	Negligible	There are no water bodies on site, furthermore the site offers no connectivity to other potential habitats or water sources.
White-clawed crayfish <i>Austropotamobius pallipes</i>	Negligible	There are no water bodies on site, furthermore the site offers no connectivity to other potential habitats or water sources.
Other priority/notable species	Moderate	Vegetation and foraging opportunities provide moderate suitability for hedgehog Where habitat is not retained, Precautionary Method of Working should be implemented.
Protected/notable plant species	Negligible	None identified on the site during the site walkover.
Invasive non-native species	Confirmed presence	Two species of plant listed in the Wildlife and Countryside Act 1981 Schedule 9 were identified on site. One species that is non-native with invasive tendencies was also identified.

Ecological Enhancements

Table 1.2 Ecological Enhancement Recommendations

Ecological Feature	Recommendations
Vegetation	Scrub, hedgerow and trees should be retained and enhanced where possible. Enhancements could include removal on invasive, non-native species, and the planting of native species. Retained grassland should be enhanced with native wildflower species.
Invertebrate features	Installation of invertebrate features could include (but is not limited to) bee houses, insect habitat bricks or 'hotels', log piles These can be incorporated into soft landscaping.
Bat boxes	Bat boxes could be installed externally on retained or new buildings. Boxes should be close by to soft landscaping and be positioned at least 3 meters from ground level to mitigate any significant disturbances. Installation of native trees, as well as herbaceous night scented species will attract invertebrates thus foraging opportunity for bats.
Bird boxes	Bird boxes could be installed externally on retained or new buildings, avoiding southern facing aspects. Where shrubs are planted, dense, woody native species should be prioritised to allow for foraging and shelter.

General Recommendations

In accordance with the Environment Act, 2021¹, National Planning Policy Framework² (NPPF) 2024, and local policy drivers, unless a site is exempt, development proposals are required to provide a measurable net gain in biodiversity. The development must deliver a minimum of 10% Biodiversity Net Gain (BNG), which should be evidenced through a Biodiversity Net Gain Assessment (BNGA) using the Statutory Biodiversity Metric (SBM)³ or Small Sites Metric (SSM), as appropriate to the site and development.

A Construction Environmental Management Plan (CEMP) should be produced and implemented in accordance with British Standard 42020: 2013 Biodiversity⁴, to mitigate against direct or indirect impacts of development on green spaces located immediately adjacent to the site.

Based on the CIEEM Advice Note 'On The Ecological Lifespan of Ecological Reports and Surveys' this report and associated surveys will be considered valid for 18 months of their undertaking. Reports and/or surveys exceeding 18 months will not be considered valid, and will require updating, subject to an assessment by a professional ecologist.

2.0 INTRODUCTION

Greengage Environmental Limited (Greengage) was commissioned by Muse Places and Wythenshawe Community Housing Group (WCHG) to undertake a Preliminary Ecological Appraisal (PEA) of an area of land known as Brotherton House in Wythenshawe, Greater Manchester, hereafter referred to as 'the site'.

This document is a report of the PEA and has been produced to inform a planning application for the site the site which includes the "*Erection of extra care apartments (Use Class C2) older living apartments, and dwellinghouses (Use Class C3), car and cycle parking, landscaping and other associated works following demolition of existing buildings*".

This PEA aims to establish the presence of, or potential for, designated sites and legally protected/priority habitats and species at the site or within the zone of influence i.e. the ecological constraints. It assesses likely impacts on the ecological constraints based on design stage proposals/assumptions and subsequently provides recommendations for additional targeted surveys and/or appropriate mitigation measures in accordance with the mitigation hierarchy, where applicable. Ecological enhancement recommendations have also been provided.

2.1 SITE DESCRIPTION

The site extends to approximately 1.77 hectares (ha) and is centred on Ordnance Survey National Grid Reference (OS NGR): SJ 82256 87190 OS Co-ordinates 382256 , 387190.

The site comprises seven buildings (B1- B7), two of which are large multi-storey structures. The remaining buildings consist of smaller sheds and residential structures. The habitats within the site consisted of areas of grassland, scrub and scattered trees in addition to hedgerows.

The site is located off Cornfield Drive, with the immediate surroundings set within residential estates, and Wythenshawe Civic shopping centre situated 0.25 kilometres (km) to the east. Wythenshawe bus interchange is located to the east of the site. Kirkup Gardens, an open access greenspace and children's play area is located immediately South of the site.

3.0 METHODOLOGY

The PEA was undertaken in accordance with guidance in the UK Habitat Classification System (UKHab)⁵ Version 2 and the Chartered Institute of Ecological and Environmental Management (CIEEM) (2017) Guidelines for Preliminary Ecological Appraisal⁶, in accordance with British Standard (BS) 2020:2013: Biodiversity. The overall assessment consisted of:

- A desk study to collate site specific biological information gained from statutory and non-statutory consultation; and,
- A site walkover comprising UKHab survey and scoping assessment to record and assess protected/priority habitats and species.

3.1 DESK STUDY

Environmental Databases

A review of readily available ecological information and other relevant environmental databases (including the Multi-Agency Geographic Information for the Countryside (MAGIC) website⁷) was undertaken for the site and a radius of 2 kilometres (km) from the site boundary, to search for statutory designated sites at the local to national level and 10km for sites at international level.

Where the site is identified to be located within the Impact Risk Zone (IRZ) for a statutory designated site (e.g. Special Protection Area (SPA)/Special Area of Conservation (SAC)/Ramsar or Site of Special Scientific Interest (SSSI)) the features for which the designated site is notified and the types of proposed development which could potentially have adverse impacts (and trigger the requirement for further assessment, e.g. Habitat Regulations Assessment (HRA) or SSSI Impact Assessment) have also been reviewed.

A review of the MAGIC website was also undertaken to check for records of European Protected Species (EPS) licences for Great Crested Newt (GCN) *Triturus cristatus* and bat species within 2km of the site. EPS licences dated within the past 10 years are considered to be most relevant.

Great Crested Newt Risk Zones

Natural England's GCN Risk Zone dataset⁸ was consulted to give an understanding of the potential presence of GCN in the local area and therefore the likelihood of the species being associated with the site. This dataset identifies areas where the distribution of GCN has been categorised into three distinct zones relating to GCN occurrence and the level of impact development is likely to have on this species. These zones are split into Red, Amber and Green. They are also used to inform the Natural England GCN District Level Licensing (DLL) scheme approach and are described as follows:

- Red zones – Contain key populations of GCN, which are important on a regional, national or international scale and include sites statutorily designated for GCN populations;

- Amber zones – Contain main population centres for GCN and comprise important connecting habitat that aids natural dispersal; and
- Green zones – Contain sparsely distributed GCN and are less likely to contain important pathways of connecting habitat for this species.

Local Environmental Records Centre

A data consultation with the Greater Manchester Local Record Centre (GMLRC) for a 2km search radius around the site was undertaken and the data received was reviewed to identify the location and citations of any local non-statutory designated sites and the presence of any protected/priority species.

A summary of the records received from GMLRC is discussed under 'Species Records' in Section 4.1. The records discussed under each relevant subheading have been included based on their relevance to the site e.g. there are suitable habitat types present on site to support the species, there is habitat connectivity between the site and record location and/or the record is in proximity of the site. Records dated within the past 10 years have also been favoured. Accurate locations in relation to badger sett records have not been included to avoid potential persecution.

The combination of actions described above provided the overall ecological context for the site, to better inform the site walkover and the subsequent assessment.

Biodiversity Action Plans/Priority Habitats and Species

UK Biodiversity Action Plans (BAPs) set priorities for nationally important habitats and species. To support the BAPs, Habitat/Species Statements (otherwise known as Habitat Action Plans (HAPs) and Species Action Plans (SAPs)) were produced to provide an overview of the status of the habitats/species and set out the broad policies that can be developed to conserve them. A list of priority habitats and species of conservation importance was also developed.

The UK BAP was succeeded in 2012 by the UK-Post 2012 Biodiversity Framework which informed the creation of the Biodiversity 2020 strategy; England's contribution towards the UK's commitments under the United Nations Convention of Biological Diversity. Subsequently, this has been replaced by the Kunming-Montreal Global Biodiversity Framework⁹ to 2030.

Despite this, the UK BAP priority species lists and conservation objectives still remain valid through integration with local BAPs (which remain valid), and in the form of the Habitats and Species of Principal Importance list (as required under Section 41 of the Natural Environment and Rural Communities (NERC) Act, 2006)¹⁰.

Local Biodiversity Action Plans (LBAPs) ensure that national action plans (the UK BAP/Biodiversity 2020) are translated into effective action at the local level and establish targets and actions for locally characteristic species and habitats.

- The desk study reviewed UKBAP and LBAP habitats and species with consideration as to which habitats/species are of relevance to the site and/or proposed development.

3.2 SITE WALKOVER

The site walkover was carried out on 20th August 2025 during dry conditions, by Sophie Trigg, Senior Consultant, and Abbie Case, Senior Consultant.

The site extents and habitats are shown at Figure A.1 with site photographs presented at Appendix B.

Habitats

The extent, distribution, type and categories of the different habitats on site were identified and mapped according to the standard UKHab methodology, using the UKHab primary codes, and UKHab secondary codes in square brackets to provide supplementary information where appropriate.

Mandatory codes for habitat mosaics, priority and Annex 1 habitats that occur in multiple primary habitats have also been applied where appropriate. Any protected plant species and/or invasive non-native species (INNS) present were also noted.

Hedgerow Assessment

A hedgerow is defined as “...any boundary line of trees or shrubs over 20m long and less than 5m wide, and where any gaps between the trees and shrub species are less than 20m wide”¹¹. Any bank, wall, ditch or tree within 2m of the centre of the hedgerow is considered to be part of the hedgerow habitat, as is the herbaceous vegetation within 2m of the centre of the hedgerow.

Hedgerows on the site were recorded with consideration given as to whether they may require assessment under the landscape and wildlife criteria listed in Schedule 1 Part II of the Hedgerows Regulations 1997¹², using the standard methodology in the Regulations, which is detailed below.

For hedgerows of 30m in length or less, the entire hedgerow is surveyed. Hedgerows greater than 30m in length are split in to 100m sections and the central 30m of each 100m section is surveyed. The number of woody species present is recorded within each length along with the presence of any of the features listed in Sub-paragraph 4 of the Regulations, namely the presence of a bank, wall, or ditch, less than 10% gaps, at least one standard tree per 50m, at least three woodland plant species, at least four points achieved from connections to other hedgerows, woods or ponds, and/or a parallel hedge within 15m.

A hedgerow is considered important under the Regulations where:

- It has an average of seven or more woody species in the surveyed section(s);
- It has an average of six woody species in the surveyed section(s) and three or more features from Sub-paragraph 4;
- It has six woody species and one of the following rare trees – black poplar *Populus nigra*, large-leaved lime *Tilia platyphyllos*, small-leaved lime *Tilia cordata*, wild service tree *Sorbus torminalis*;
- It has an average of five woody species on average in the survey section(s) and has four or more features from Sub-paragraph 4; or,

- It has four woody species on average in surveyed section(s), is adjacent to a footpath, bridleway or byway open to all traffic (BOAT) and has two or more features from Sub-paragraph 4.

A hedgerow also qualifies as a habitat of principal importance under Section 41 of the NERC Act 2006 if it comprises greater than 80% of one or more native species. The hedgerows on the site were therefore also assessed to determine whether they qualify as a NERC Act 2006 habitat of principal importance.

Ash Die Back

Where ash *Fraxinus excelsior* trees were identified on the site, they were assessed for evidence of poor health to indicate whether ash die back (ADB) was potentially present. ADB, also known as Chalara or Chalara dieback of ash, is a disease of ash trees caused by a fungus called *Hymenoscyphus fraxineus*. ADB causes leaf loss, crown dieback and bark lesions in affected trees. Once a tree is infected the disease is usually fatal, either directly or indirectly by weakening the tree to the point where it succumbs more readily to attacks by other pests or pathogens, especially honey Armillaria fungus.

ADB has caused widespread damage to ash populations in continental Europe, where experience indicates that it can kill young ash trees quite quickly, while older trees can resist it for some time.

Any obvious/conclusive signs of ADB were recorded, where seen.

Species

The site walkover included assessments to identify the potential value for legally protected or priority species at the site. This involved identifying potential habitats which support opportunities for refuge, breeding and foraging in the context of species known to be present locally and regionally.

The likelihood of occurrence is ranked as follows:

- Negligible - While presence cannot be absolutely discounted, the site includes very limited or poor-quality habitat for a particular species. The site may also be outside the known national range for a species;
- Low - On-site habitat is poor to moderate quality for a given species, with few or no information about their presence from the desk study. However, presence cannot be discounted due to the national distribution of the species or the nature of on-site and surrounding habitats;
- Moderate - The on-site habitats are of moderate quality, providing most or all of the key requirements for a species. Several factors may limit the likelihood of occurrence, habitat severance, habitat disturbance and small habitat area;
- High - On-site habitat of high quality for given species. Site is within a regional or national stronghold for that particular species with good quality surroundings and good connectivity; and,
- Present - Presence confirmed from the site walkover itself or recent, confirmed records from information gathered through the desk study.

The species considered potentially relevant to the site and therefore taken into consideration included:

Amphibians

Great Crested Newt

The site walkover assessed the habitats on the site for their suitability to support GCN and/or other native amphibians, e.g. common toad *Bufo bufo*, common frog *Rana temporaria*. The aquatic and terrestrial habitats required generally include still waterbodies suitable for breeding and woodland, scrub or grassland habitat where there is optimal invertebrate prey potential and/or shelter.

Badger

The potential for badger *Meles meles* to inhabit or forage/commute within the site was assessed during the site walkover. Evidence of badger activity includes the identification of setts (a system of underground tunnels and nest chambers), grubbed up grassland (caused by the animals digging for earthworms, slugs, beetles etc.), badger hairs, paths, latrines/dung pits and paw prints.

Land up to 30m from the site was also observed and assessed for signs of activity, where access was permitted/available.

Bats

The PEA considers foraging/commuting bats and roosting bats (summer/transitional and winter hibernation).

Habitats such as woodland, meadows and waterbodies can provide important foraging resources and linear features such as tree lines, hedgerows, railway and river corridors are often considered valuable for commuting bats. The site walkover included recording the presence/assessing the suitability of the habitats and features present on the site, in combination with habitat connectivity associated with the wider landscape.

The site walkover included an external, ground-level visual assessment to identify and record Potential Roosting Features (PRFs) on buildings/structures, a Ground Level Tree Assessment (GLTA) and evaluation of habitats for foraging and commuting bat species *Chiroptera* spp. Consideration was given to the presence of features and habitats both within and adjacent the site.

In accordance with the Bat Conservation Trust's (BCT) Good Practice Guidelines¹³ and methods given in the CIEEM Bat Mitigation Guidelines¹⁴ consideration was given to:

- The presence, location, type and suitability of PRFs; and
- Signs of bat activity or presence including bat sightings, audible bat chattering, droppings, stains (including grease marks and urine spatter), scratch marks, and moth/butterfly wings.

Guidance from BCT ranks bat roosting and foraging suitability on a scale through None, Negligible, Low, Moderate and High. The parameters for each of these are as follows:

- None - Relates to a site with 'no habitat features suitable for bats';
- Negligible - Relates to a site with no 'obvious habitat features likely to be used by bats';

- Low - Relates to a site with only a few roost sites that could be used by individual bats 'opportunistically', and foraging and commuting habitat which is 'not very well connected' and only suitable to support small numbers of bats;
- Moderate - Relates to a site with potential roosting features that could be used regularly by bats but not for roosts of high conservation status, and foraging and commuting habitat which is 'continuous' and 'connected to the wider landscape'; and,
- High - Relates to a site with one or more potential roost sites that could support 'larger numbers of bats on a more regular basis and also have suitability to support high conservation status roosts, e.g. maternity roosts. High suitability foraging and commuting habitat is well connected and likely to be used regularly by bats for flight paths e.g. rivers, valleys etc and could even be connected to a roost site(s).
- PRFs can include buildings, bridges, tunnels and caves with cracks or gaps leading into voids or crevices, or trees with holes, crevices or splits of sufficient size and depth. Based on the number, location and type of PRF(s) the buildings/structures were categorised based on the categorisations provided above.

Trees were categorised either individually or as a group using the following BCT grading system; None (same as above), Further Assessment Required (FAR), PRF-I (where PRFs are only suitable for individual bats or very small numbers of bats either due to size or lack of suitable surrounding habitats), or PRF-M (where PRFs are suitable for multiple bats and may therefore be used by a maternity colony).

Birds

During the site walkover, the potential for the site to support breeding and/or non-breeding bird species was assessed. This included recording the presence/absence of areas of trees, scrub, heathland, arable and wetland habitat that could support nests or provide foraging resources for common or notable species. Consideration was also given to the presence/absence of features on-site that may support Wildlife and Countryside Act 1981 (as amended) Schedule 1 species, e.g. barn owl *Tyto alba*, black redstart *Phoenicurus ochruros*, and kingfisher *Althedo atthis*.

Dormouse

During the site walkover the potential for dormouse *Muscardinus avellanarius* to be present on the site was assessed. This included observations for suitable habitat such as well-layered woodland, scrub and linking hedgerows, particularly those comprised of species offering suitable food sources such as honeysuckle *Lonicera periclymenum* and hazel *Corylus avellana*, in addition to direct evidence such as nests or characteristically gnawed hazelnuts, chewed ash keys and honeysuckle flowers.

Invertebrates

As part of the site walkover the quality of invertebrate habitat and the potential for the site to support notable terrestrial and aquatic invertebrate species was considered. There is a wide variety of habitats that are suitable for invertebrates including wetland, heathland, areas of bare sandy soil, ephemeral

brownfield vegetation and meadows. The diversity of the habitat structures and features present is important along with food sources for supporting specific needs/life stages/population numbers.

Species of particular interest included, but were not limited to, stag beetle *Lucanus cervus*, roman snail *Helix pomatia*, glow worm *Lampyrus noctiluca* and notable butterfly species for the region.

Reptiles

The potential for widespread reptile species to use the site was assessed during the site walkover. Possible species include adder *Vipera berus*, grass snake *Natrix helvetica*, slow worm *Anguis fragilis* and common lizard *Zootoca vivipara*. These native reptile species generally require open areas with low, mixed-height vegetation, such as heathland, rough grassland, and open scrub or, in the case of grass snake, waterbody margins. Suitable well drained areas and frost-free features for hibernation are needed to survive the winter.

Riparian Mammals

Beaver

The site walkover included assessment of the suitability of the watercourse/waterbody on the site/within 30m of the site, to support beaver *Castor fiber*. Factors determining suitability include the presence of good cover and suitable settings for potential dam construction. Where signs of activity, e.g. dams, channels leading to/from the watercourse/waterbody, paw prints or distinctly gnawed or felled trees were observed, these were recorded.

Otter

The site walkover included assessment of the suitability of the watercourse/waterbody on the site/within 30m of the site to support otter *Lutra lutra*. Potentially suitable habitats include rivers, lakes, streams, particularly those with potential foraging resources and likely connectivity with other watercourses/major ditch networks in the surrounding landscape. The availability of good habitat cover and potential holt (den) sites, e.g. bases of exposed tree roots, was assessed and recorded where present. Signs of activity, such as spraints, paw prints, anal jelly or food remains were also noted, if seen.

Water Vole

The site walkover included an assessment of the suitability of the watercourse/waterbody on the site/within 30m of the site, to support water vole *Arvicola amphibius*. Potentially suitable habitats include ditches, rivers, dykes and lakes. The level of suitability assigned is determined by factors such as water levels, flow rates and availability of suitable foraging resources. Evidence of activity, including burrows, runs along the banks, latrines, paw prints or feeding remains/feeding lawns were recorded.

White-clawed Crayfish

The potential for the site to support white-clawed crayfish *Austropotamobius pallipes* was assessed during the site walkover. The likelihood of presence is defined by the presence/absence and type of watercourse present, e.g. shallow watercourses with earth banks and rocky substrate on the channel bed

are preferable, along with connectivity to other suitable watercourses in the wider landscape. Presence of waterbodies may also be considered where island or ark populations are known to occur.

Other Priority/Notable Species

Where desk study data indicates the potential for presence of BAP priority species or other notable/rare species not protected by statute, effort was made to establish the potential for the site habitats to support these species during the site walkover.

Species of particular consideration included, but were not limited to, hedgehog *Erinaceus europaeus*.

Protected/Priority Plant Species

During the site walkover, presence of plant species protected under the Wildlife and Countryside Act 1981 (as amended) Schedule 8 or NERC Act 2006 Section 41 were searched for (seasonal timing allowing). This included assessing the habitats present for possible suitability to support protected/notable fungi and lichen, where appropriate.

Invasive Non-native Species

During the site walkover, presence of plant and animal species listed as invasive under the Wildlife and Countryside Act 1981 (as amended) Schedule 9 were searched for. As and where appropriate to the site habitats present, these included but were not necessarily limited to, Japanese knotweed *Reynoutria japonica*, Himalayan balsam *Impatiens glandulifera*, wall cotoneaster *Cotoneaster horizontalis*, Japanese rose *Rosa rugosa*, Australian swamp stonecrop *Crassula helmsii*, signal crayfish *Pacifastacus leniusculus*, American mink *Neovison vison*, Chinese mitten crab *Eriocheir sinensis*, midwife toad *Alytes obstetricans*, alpine newt *Ichthyosaura alpestris* and Italian newt *Lissotriton italicus*.

In addition, where species that are not Wildlife and Countryside Act 1981 (as amended) Schedule 9 listed species, i.e. INNS, but which are considered to have 'invasive tendencies' were encountered, these were also recorded e.g. buddleia *Buddleja davidii*, snowberry *Symphoricarpos alba*, common horsetail *Equisetum arvense* (list not exhaustive).

3.3 SURVEYORS/COMPETENCIES

Sophie Trigg, Senior Consultant, has an undergraduate degree in Zoology (BSc Hons) and has over seven years of experience in ecological consultancy. Sophie holds a Natural England Great Crested Newt Licence and is a Level 3 botanist, as accredited by FISC. She has experience in a wide range of survey and assessment types.

Abbie Case, Senior Consultant, has a BSc (Hons) in Ecology and Conservation, an MSc in Conservation Biology and is an Associate member of CIEEM. Abbie has over seven years in ecological survey and assessment and holds a Natural England Great Crested Newt Licence, and is a Level 4 botanist as accredited by FISC.

Emily Spencer, Graduate Ecologist has a BSc (Hons) in Wildlife Ecology & Conservation and is completing an MSc in Wildlife Conservation. Emily's experience includes three years of bat activity surveys, several protected species surveys and report writing.

Francesca Thorley, Senior Consultant, has an undergraduate degree in Geography (BSc Hons) and a Master's degree in Biodiversity and Conservation (MSc), holds a Natural England Great Crested Newt Licence, is Certified to undertake River Condition Assessments and is an Associated Member of CIEEM. Francesca has over 7 years' experience in the commercial sector.

Paul White, Associate Consultant, has a Bachelor's degree in Marine Biology (BSc Hons), a Natural England Great Crested Newt Licence and Dormouse Licence, and is an Associate member of CIEEM. Paul has over 16 years' experience in ecological surveying and has undertaken and managed numerous ecological surveys and assessments.

This report was prepared by Emily Spencer, reviewed by Francesca Thorley and authorised by Paul White, who confirms that the report is in line with the following:

- Represents sound industry practice;
- Reports and recommends correctly, truthfully and objectively;
- Is appropriate given the local site conditions and scope of works proposed; and
- Avoids invalid, biased and exaggerated statements.

3.4 CONSTRAINTS

The PEA was undertaken in suitable weather conditions as such weather was not a constraint. Access was granted to all aspects of the site, both internal and external. However, during the internal inspection of B1 and B5, it was discovered that there was limited access to the roof space, similarly, access to B7 was not possible. To mitigate any constraints a thorough inspection of all external elevations was carried out, and as such should have no impact on the validity of the PEA.

4.0 RESULTS

4.1 DESK STUDY

Environmental Databases

Designated Sites

The desk study did not identify any statutorily designated sites within 2km of the site. However, two internationally designated sites were identified within 10 km of the site. These were Rostherne Mere Ramsar approximately 7.60 km south west of the site and Midland Meres & Mosses - Phase 1 Ramsar approximately 9.08 km from the site.

Several non-statutory sites were identified in the form of Sites of Biological Importance (SBI's), locations and descriptions of which are found in Table 4.1 below.

Table 4.1 Statutory and Non-Statutory Designated Sites identified within 2km Search Radius

Site Name and Designation	Approximate Location and Direction from the Site	Description/Citation
Non-statutory		
Park Wood SBI	0.8km east	Park wood is one of many woodlands in Wythenshawe. It is regularly managed and features a pond in the centre. Approximately 4ha, it is situated amongst a residential area, and it often used by families and dog walkers.
Big Wood SBI	0.9km southeast	Big wood comprises several smaller woodlands, including Ash Wood, Little Wood and Hatchett's wood, the latter of which has a small pond.
Painswick Park Meadow SBI	1.1km southwest	The meadow is a park of Painswick Park, which features a fishing pond, artificial lake and children's play areas. The area was previously farmland, before becoming a landfill site, before being turned into an open grassland with wildlife meadow.
Blackcarr Wood & Baguley Bottoms SBI	1.1km north	Blackcarr Wood refers to the green space situated near the long-standing Baguley Hall. The woodland is commonly used for community events. Baguley Brook weir runs through it.
Heald Green Marsh SBI	1.8km east	Marshland and woodland containing a pond and meadow, situated within the suburb of Heald Green

Biodiversity Action Plans/Priority Habitats and Species

No UK BAP priority habitats/species were identified directly on the site; however, the following priority habitats were identified within 1km of the site:

- Deciduous Woodland - Various parcels of woodland located within 1km of the site., the closest being 0.38km northwest.

The review of MAGIC did not identify any EPS licences relating to GCN/bats.

Great Crested Newt Risk Zones

The review of Natural England's GCN Risk Zones identified that the site is situated across two risk zones: Amber and Green.

Amber zones are considered to contain main population centres for GCN, and comprise important connecting habitat that aids natural dispersal, where Green zones may contain sparsely distributed GCN, with less presence of connectivity.

Local Environmental Records Centre

Species Records

The data consultation with Greater Manchester Local Records Centre (GMLRC) returned records of relevance to the site relating to badger, bats, birds, invertebrates and other notable species, i.e. hedgehog, within 2km of the site within the last 10 years.

Amphibians - Great Crested Newt

In 2022 an environmental DNA (eDNA) survey was conducted 1.2km southeast of the site at a woodland known as Big Wood, to detect the presence of GCN; the survey determined that GCN were absent from any water bodies at Big Wood

No records of other amphibian species were returned by GLMRC.

Badger

GLMRC records returned two records of badgers within 2km of the site between 2015 and 2025. One active sett was recorded 1.8km northeast of the site, however this was in 2005 with no subsequent surveys or updates.

Table 4.2 Summary of most relevant badger records within 2km of the site

Common Name	Scientific Name	Distance/Direction From Site	Notes
Badger	<i>Meles meles</i>	1.8km Northeast	One live badger recorded.
		1.2km Southwest	One dead badger recorded.

Bats

A total of five bat species were identified, including Common pipistrelle *Pipistrellus pipistrellus*, Soprano pipistrelle *Pipistrellus pygmaeus*, Daubenton's bat *Myotis daubentonii*, Noctule *Nyctalus noctula*, and Brown long-eared bat *Plecotus auritus*; five roosts were also identified, details of which are outlined in Table 4.3. Where multiple records of one species were returned, the closest observation is recorded.

Table 4.3 Summary of most relevant bat records, including roosts and activity, within 2km of the site

Common Name	Scientific Name	Distance/Direction from Site	Notes
Roosts			
Common pipistrelle Brown long eared Myotis	<i>Pipistrellus pipistrellus</i> <i>Plecotus auritus</i> <i>Myotis spp.</i>	1.5km North	Record from 2019 of an active mixed species roost.
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	1.2km West	Record from 2015 of a maternity roost, including presence of young.
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	1.9km East	Record from 2017 of a roost with droppings.
Common pipistrelle Soprano pipistrelle	<i>Pipistrellus pipistrellus</i> <i>Pipistrellus pygmaeus</i>	2km Northeast	Record from 2021 of a mixed pipistrelle species roost, emergences and re-emergence's seen.
Activity by Species			
Bats	<i>Chiroptera spp</i>	1.2km West	One record of presence
Brown long eared	<i>Plecotus auritus</i>	0.3km North	One record of one injured adult male in 2016. Bat was later released.
Noctule	<i>Nyctalus noctula</i>	0.6km North	A total of 12 records between 2018 and 2021.
Daubenton's bat	<i>Myotis daubentonii</i>	0.9km South	Two records in 2021; closest 0.9km south of site.
Pipistrelle	<i>Pipistrellus spp</i>	0.3km Northeast	Two records between 2015-2019; one record observed foraging behaviour, one record observed five young bats in an abandoned roost, which were later euthanised

Common Name	Scientific Name	Distance/Direction from Site	Notes
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	0.3km Southwest	A total of 59 records between 2021 and 2022, including one adult found dead and one juvenile found injured, which was later euthanised.
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	0.2km Northeast	A total of 25 records between 2015 and 2019; closest 0.2km northeast. Records include one injured adult male which was later released.

Birds

GMLRC returned a total of 25 records for six no. of bird species within 2km of the site between 2015 and 2025. No Wildlife and Countryside Act 1981 (as amended) Schedule 1 bird species were included within the records. A total of 17 of the records also comprised BoCC¹⁵ Red listed species, and the remaining 8 were BoCC Amber listed species, as outlined in Table 4.4 below. Where multiple records of one species were returned, the closest observation is recorded.

Table 4.4 Summary of most relevant bird species recorded within 2km of the Site.

Common Name	Scientific Name	Distance/Direction from Site	WCA/BoCC5 Status
House sparrow	<i>Passer domesticus</i>	0.5km South	Red
Spotted flycatcher	<i>Muscicapa striata</i>	1.2km West	Red
Starling	<i>Sturnus vulgaris</i>	0.1km North	Red
Bullfinch	<i>Pyrrhula pyrrhula</i>	1.1km Southwest	Amber
Dunnock	<i>Prunella modularis</i>	1.3km Southwest	Amber
Song thrush	<i>Turdus philomelos</i>	1.1km Northwest	Amber

Dormouse

GMLRC did not return any records pertaining to Dormice within 2km of the site between 2015 and 2025.

Invertebrates

GMLRC returned a total of 8 records of one species of invertebrates within 2km of the site between 2015 and 2025. Where multiple records of one species were returned, the closest observation is recorded.

Table 4.5 Summary of most relevant invertebrate records within 2km of the site

Common Name	Scientific Name	Distance/Direction From Site	Notes
Cinnabar Moth	<i>Tyria jacobaeae</i>	0.5km south	A total of eight records of observed presence of both adult and larvae stage between 2018 and 2025.

Fish

GLMRC did not return any records pertaining to fish species within 2km of the site.

Reptiles

GLMRC did not return any records pertaining to reptile species within 2km of the site.

Riparian Mammals

GLMRC did not return any records pertaining to riparian mammals within 2km of the site.

White-Clawed Crayfish

GLMRC did not return any records pertaining to White-clawed crayfish within 2km of the site.

Protected/Notable Plant Species

GLMRC did not return any records pertaining to protected or notable plant species within 2km of the site.

Invasive Non-native Species

GLMRC did not return any records pertaining to invasive non-native species within 2km of the site.

Other Priority/Notable Species

GLMRC returned a total of 18 records of hedgehogs within 2km of the site between 2015 and 2025. A total of 18 individuals were observed (17 alive, and 1 dead). Where multiple records of one species were returned, the closest observation is recorded.

Table 4.6 Summary of most relevant other priority/notable species records within 2km of the site

Common Name	Scientific Name	Distance/Direction From Site	Notes
Hedgehog	<i>Erinaceus europaeus</i>	0.4km northwest	A total of 17 records pertaining to hedgehog, observed both alive and deceased between 2016 and 2023.

The species referred to in the Species section are primarily those known to be in the area that may be impacted by any proposals at the site, or that stand to benefit as a consequence of potential ecological enhancements at the site and inform site-specific mitigation and enhancement recommendations described in Section 5.0.

4.2 SITE WALKOVER

Habitats

The habitats present across the site consisted of the following UKHab categories.

- Developed land; sealed surface (u1b)
- Buildings (u1b5)
- Built up areas and gardens (u1)
[847 - Introduced shrub] [828-Vegetated Garden] [46-Ornamental Lakes or Ponds]
- Modified grassland (g4)
[16-Tall forbs] [32-Scattered trees] [81-Ruderal or ephemeral] [521-Unmanaged] [10-Scattered Scrub]

u1b - Developed land; sealed surface

The majority of the site comprised developed land, with sealed surface in the form of car parks and footpaths (Plate B.8, Plate B.9, Plate B.10). Structured planting in the form of shrubs and trees were present along the edges of the buildings and footpaths. The site is not currently in use and there is no public traffic in or out of the car park.

u1b5 - Buildings

In total seven buildings (B1- B7) were identified, as shown in Figure A.1, and are described below.

- B1- A large multi storey brick building with a flat roof; connects to B5. (Plate B.3)
- B2- A one storey breeze block shed with a corrugated metal roof. Broken door restricted internal access and there are no windows (Plate B.7).
- B3- A one storey brick building with wooden doors and metal cladding and a flat roof. Walls, windows and roof appear to be in good condition. Internal space is not accessible.
- B4- A one storey brick substation with a flat roof; no access due to wooden panels blocking entrance.
- B5- A four storey 'tower' at the southern end of the complex Internally connects to B1 (Plate B.5)
- B6 A simple brick bike storage structure, with a plasterboard inner roof, suggesting there may be a cavity space. The space is fully open on one side.
- B7- An disused residential unit; internal access was not possible (Plate B.6)

Further details are provided in Table 4.8 in relation to a Preliminary Roost Assessment below.

u1 - Built up areas and gardens [847 - Introduced shrub] [828-Vegetated Garden] [46-Ornamental Lakes or Ponds]

Six parcels of built-up areas and gardens were present throughout the site, mostly comprising introduced shrub such as Japanese spindle *Euonymus japonicus* and *Photinia spp.* Noted was a Leyland

cypress *Cupressus × leylandii* which appeared to have been cut down to the stump. An ornamental pond with damaged lining was also present, the pond was dry and filled with debris, with no evidence of being filled recently. Surrounding the pond was shrub species such as Silverthorn *Elaeagnus pungens* and box leaf honeysuckle *Lonicera pileata*.

g4 - Modified grassland [10-Scattered scrub] [16-Tall forbs]; [32-Scattered trees]; [81-Ruderal or ephemeral]; [521-Unmanaged]

Several areas of modified grassland were present throughout the site (Plate B.11, Plate B.13). Larger parcels of grassland were unmanaged and held species such as meadow cranesbill *Geranium pratense*, oxeye daisy *Leucanthemum vulgare*, meadow sweet *Filipendula ulmaria*, common knapweed *Centaurea nigra*, common ragwort *Jacobaea vulgaris*, and ribwort plantain *Plantago lanceolata* and ash *Fraxinus excelsior*. Linear parcels of grassland enclosed by hardstanding appeared to have been mown and primarily comprised of widespread grasses such as perennial rye grass *Lolium perenne* and bent grass *Agrostis* spp. Other occasional species included bramble *Rubus fruticosus* agg., yarrow *Achillea millefolium*, selfheal *Prunella vulgaris*, autumn hawkbit *Scorzoneroides autumnalis*, creeping thistle *Cirsium arvense*, meadow buttercup *Ranunculus acris*, cat mint *Nepeta* spp., ground ivy *Glechoma hederacea*.

A survey of the site identified approximately 60 trees of varying condition, from good to poor and decaying. These trees were distributed in several formations: small groups, linear belts, and as scattered individuals. The species noted on site included:

- Apple *Malus domestica*
- Ash *Fraxinus excelsior*
- Bird Cherry *Prunus padus*
- Cherry *Prunus avium*
- Cotoneaster *Cotoneaster* species
- Elderberry *Sambucus nigra*
- Maple *Acer* species
- Purple-leaf Plum *Prunus cerasifera*
- Rowan *Sorbus aucuparia*
- Whitebeam *Sorbus aria*

Ash trees were reported to have been in varying stages of decay as a result of ash die back.

Introduced shrub

Two patches of introduced shrub were identified on site. Nonnative species were dominant, such as cherry laurel *Prunus laurocerasus* and Viburnum tinus *Laurustinus*, with occasional evergreen spindle *Euonymus japonicus* and cotoneaster. Native species such as bird cherry *Prunus padus*, and bramble were rare.

Hedgerows

A total of five hedgerows were present on site (Plate B.12). Descriptions are provided in Table 4.7.

Table 4.7 Hedgerows Present on Site

Hedgerow Reference	Hedgerow Description
H1	Unmanaged, non-native/ornamental hedgerow, comprising Norway spruce <i>Picea abies</i> and cherry laurel.
H2	Unmanaged, non-native/ornamental hedgerow, which is primarily growing outside of the fence but extends into the boundary. Bramble is dominant, with other species including wild cherry <i>Prunus avium</i> , ash and sycamore <i>Acer pseudoplatanus</i> . Occasional species include red osier dogwood <i>Cornus sericea</i> , box leaf honeysuckle, and hawthorn <i>Crataegus monogyna</i> .
H3	Unmanaged, hedgerow with a mix of native and non-native species. Includes woody species such as bramble, sycamore, firethorn <i>Pyracantha coccinea</i> , holly berry cotoneaster <i>Cotoneaster bullatus</i> and Himalayan cotoneaster <i>Melicope pallida</i> .
H4	Unmanaged hedgerow, primarily outside of the boundary but encroaching onto the site. Species include wild cherry, ash, bramble, sycamore, firethorn and holly berry cotoneaster.
H5	Unmanaged, native hedgerow, outside of the boundary line but encroaching onto site. A line of young/semi-mature trees acting as a linear hedgerow feature. Species include hazel, ash, beech <i>Fagus sylvatica</i> and sycamore.

Species

Amphibians

Great Crested Newt

An ornamental lined pond is present on site, but it is dry with no evidence of being recently filled (Plate B.2). MAGIC identified the closest body of water to the site as a small pond, located 805m east of the site, which far exceeds GCN average dispersal range of 250m¹⁶. GCN and amphibians will often utilise terrestrial habitats, such as modified grassland, scrub and hedgerows, all of which are present on site, but the site lacks any connectivity and is surrounded by roads and urban spaces, which is likely to inhibit dispersal. For these reasons the site is deemed to be of negligible suitability for amphibians including GCN and therefore will not be considered further in this report.

Badger

Badger preferred habitat comprises primarily of woodland, fields and meadows; however, they are known to opportunistically inhabit more urban areas. The site contains considerable hardstanding, but also unmanaged vegetation, trees and shrub, which have potential to offer foraging and nesting opportunities. However, the site lacks connectivity and is subject to disturbance, furthermore no

evidence of badger was observed on site, in the form of setts, latrines or otherwise. These factors, in combination with the absence of records pertaining to badger presence in the immediate area, render the site of negligible suitability for badger.

Bats

Foraging/Commuting

The unmanaged ground-level vegetation, trees, and scrub on site represent good foraging habitat for bats. However, the site's proximity to roads, residential, and commercial buildings results in a high intensity of artificial light, potentially inhibiting bat commuting in the immediate area. Consequently, the site is assigned as low suitability for foraging and commuting bats.

Roosting

During the Preliminary Roost Assessment (PRA) the buildings on site (B1-B7) were surveyed to identify any PRF's that held potential to support roosting bats. A summary of the PRF's potential to support roosting bats is summarised below:

- B1 and B7 contained PRF's of low and moderate suitability;
- B2 and B5 contained PRF's of low suitability;
- B6 contained PRF's of moderate suitability.

B3 and B4 contained only PRF's of negligible suitability, as such will require no further surveys. Details of PRF's are outlined in Table 4.8.

Buildings were assessed based on the presence of PRF's, and the sites overall potential to support bats. Considering the high level of urbanisation and subsequent disturbance immediately within the vicinity of the site, it was determined that all buildings were of low suitability to support roosting bats.

Additionally, a GLTA identified a tree with PRF's where a definite ingress point could not be confirmed, as such this was classified as Further Assessment Required (FAR).

Recommendations for bats are outlined in Section 5.2

Table 4.8 Potential roosting features found on buildings and trees on site.

Reference	Elevation	Suitability	Description	Image
B1	Northeast	Low	Hole in fascia of overhanging roof space. Appears to lead into a cavity, though unlikely to be able to hold a consistent temperature. Underside appears to be made of plasterboard. Feature is approximately 15cm x 10cm	

Reference	Elevation	Suitability	Description	Image
B1	Southeast	Moderate	Metal vent leading into building, from floor level to 3m high.	
B1	North	Negligible	X5 large metal grates within the brick wall, appears to be a secondary, smaller grate behind which would stop access for bats	

Reference	Elevation	Suitability	Description	Image
B1	N/A	Moderate	Large gap in plasterboard tile, allowing access into cavity. Extends back further into existing panels, approximately 1m x 30m gap.	
B1	North	Low	Two large metal grates within the metal fascia. Not possible to tell from ground level whether they are likely to provide bats access into a cavity space. Metal fascia likely provides unsuitable roosting materials.	

Reference	Elevation	Suitability	Description	Image
B1	Northeast	Low	Hole in metal fascia next to the grate. Possibly leads to a cavity within the fascia and may lead into building. However, the fascia material likely provides unsuitable roosting habitat due to temperature fluctuations. Size is 10cm x 10cm triangle.	

Reference	Elevation	Suitability	Description	Image
B1	Northeast	Moderate	Missing mesh behind the vent, allowing access into the building. Approximately 50cm x 50cm gap behind the vent.	
B1	East	Moderate	Gap between metal and wood of roller door, 4m long gap extends all the way, is 5m wide.	

Reference	Elevation	Suitability	Description	Image
B1	Southeast	Negligible	Vent on side of building. Appears to have a second smaller grate inside which has gaps that appear too small for bats to access.	
B1	Southeast	Low	Small hole 10cm in diameter in brick work. Wires are protruding from the hole, blocking the entrance. However, presence of wires indicates there may be internal access into the wall or building through the hole.	

Reference	Elevation	Suitability	Description	Image
B1	Southeast	Low	Hole in metal fascia, likely leads to an internal cavity, however metal structure is unsuitable for roosting bats. Feature is downward facing and approximately 10cm in diameter.	
B1	North	Low	Five air vents located on the northern edge of building. All same height, size and orientation. Unable to determine if they extend back into the building, so precautionarily noted as features.	

Reference	Elevation	Suitability	Description	Image
B1	Northwest	Low	Air vent, approximately 50cm x 50cm in size. Precautionarily noted as a feature as unable to see how far it extends. Appears to be nesting material inside grate.	
B2	Southeast	Low	Building precautionary low. Small gap above wooden door frame, very exposed and open	

Reference	Elevation	Suitability	Description	Image
B5	Northeast	Low	Two small holes in brickwork, hanging over a smaller reception roof. Could potentially have access to a cavity wall space, but unable to confirm from ground level.	

Reference	Elevation	Suitability	Description	Image
B5	Southeast	Low	Open vent which could potentially lead to an inner room or wall space. Large gap is approximately 2ft x 1ft but the whole area has an open grate, which could be accessed. May be too exposed for bats, unless there are internal, more sheltered cavities. Surveyors unable to find access internally.	
B6	North	Low	Hole in plasterboard where it meets the wall, offering access into the roof space. Triangular hole approximately 30cm x 10cm. Potential to be endoscoped from ground level.	

Reference	Elevation	Suitability	Description	Image
B7	North	Low	Gap under fascia	
B7	East	Low	Small gaps under the whole length of the east facing fascia board.	

Reference	Elevation	Suitability	Description	Image
B7	Northeast	Low	Missing mortar on edge of roof tiles next to drainpipe on pitched roof; 30cm x 5cm	

Reference	Elevation	Suitability	Description	Image
B7	West	Low	Gaps in rotten wooden fascia board. Multiple gaps approximately 5cm to 10cm	
B7	Northwest	Moderate	Hole in mortar under roof tile, potential to provide access into roof cavity	

Reference	Elevation	Suitability	Description	Image
B7	Northeast	Moderate	Holes in mortar underneath roof tiles, providing access points which may lead into roof cavities. Most notable towards the east of the roof, but gaps are evident along entire roof edge.	

Reference	Elevation	Suitability	Description	Image
Trees with PRF'S				
Tree 1	East	FAR	Whitebeam Sorbus aria with a knothole	

Birds

Bird species such as pigeon and corvids have been observed on the site, and a nest was observed situated on top of an external light structure (Plate B.1). Ultimately it is deemed that the site has high suitability for common, or urban nesting birds; recommendations for their presence can be found section 5.2

Scattered trees, scrub and hedgerow and buildings all have the potential to support nesting birds, though the absence of rough grassland and the presence of predators (foxes) the site is unlikely to support ground nesting birds such as skylark *Alauda arvensis* or lapwing *Vanellus vanellus*. Additionally, the site is considered to be of negligible suitability for Schedule 1 bird species, justified by the lack of specialised habitats, suitable nesting features i.e. barns, large undisturbed tree cavities, and the high level of urbanisation in the immediate surroundings.¹⁷

Dormouse

No suitable habitat for dormouse was observed on site, furthermore the species is not considered to be common in the region according to The Peoples Trust for Endangered Species¹⁷. Additionally, the presence of predators (foxes) on the site could act as a deterrent for dormice activity, as such it is highly unlikely that dormouse are present on site, and they will not be considered further in this report.

Invertebrates

The presence of vegetation on site i.e. trees, scrub and grassland, have potential to support a small number of common invertebrate species. Notable invertebrate species, such as the stag beetle require saproxylic habitats, which are absent from the site.

As such the site is deemed to be of moderate suitability for widespread invertebrate species. Uncommon, or notable invertebrate species are likely absent from the site and will not be considered further within this report.

Reptiles

Though shrub and grassland on site may offer potential basking and foraging habitat for reptiles, there is no sufficient hibernacula or refugia. Additionally, the site is surrounded by roads, residential and commercial units, creating a barrier for any commuting reptiles. As such the site is deemed to be negligible for reptile presence, and they will therefore not be considered further in this report.

Protected/Notable Plant Species

No protected plant species were observed during the PEA, as such the site is considered to be of negligible suitability for protected plant species.

Invasive Non-native Species

A total of two Schedule 9 listed invasive plant species were identified on site:

- Hollyberry cotoneaster *Cotoneaster bullatus*, and;
- Small-leaved cotoneaster *Cotoneaster microphyllus*.

Cherry laurel was also observed on site, though it is not listed as Schedule 9 species, it is non-native with invasive tendencies.

Other Priority/Notable Species

Hedgehog

The hedgerows, scrub and grassland habitats present on the site provided suitability to support hedgehog. These habitats provide nesting, foraging and hibernating habitat for these species. The fence surrounding the site is permeable, granting access to hedgehogs commuting between the site and residential gardens or nearby green spaces. The site is therefore considered to provide moderate potential to support hedgehog.

Other Wildlife

*Fox (*Vulpes vulpes*)*

Foxes have been observed on site and commuting across roads to adjacent residential areas. Hedgerow and shrub can provide shelter for foxes but given the highly developed nature of the site and surrounding areas it is possible that they are utilising the empty building for shelter. While not a BAP priority species, foxes are protected under the Animal Welfare Act 2006, which protects them from unnecessary suffering.

5.0 EVALUATION

5.1 PROPOSALS

The proposed development includes the “*Erection of extra care apartments (Use Class C2) older living apartments, and dwellinghouses (Use Class C3), car and cycle parking, landscaping and other associated works following demolition of existing buildings*”.

It is understood that some hedgerow and trees will be retained within the site boundary, however it is expected that development will necessitate the removal of some trees and hedgerow. To compensate for any loss, landscaping will be incorporated into design; this will include retention, enhancement of grassland, grassland creation, and tree and hedgerow planting.

This new planting will contribute to the site's overall habitat value, helping to mitigate the aforementioned loss.

5.2 DISCUSSION AND RECOMMENDATIONS

The discussion is provided below on the key ecological receptors that stand to be impacted by and/or could benefit through careful design of, the proposed development.

Designated Sites & Habitats

In accordance with the Environment Act, 2021, National Planning Policy Framework (NPPF) 2024, and local policy drivers, development proposals are required to provide a measurable net gain in biodiversity. Where a site is not exempt, the development must deliver a minimum of 10% BNG, which should be evidenced through a Biodiversity Net Gain Assessment (BNGA) using the Statutory Biodiversity Metric (SBM) or Small Sites Metric (SSM), as appropriate to the site and development.

No statutory sites were identified within 2km of the site boundary; however two internationally designated sites were located within 10 km of the site. Due to the distance from the site and the two internationally designated sites, no direct or indirect impacts are anticipated, therefore no further action is required relating to these internationally designated sites. Similarly, the impact of proposed development is unlikely to impact the SBI's or priority habitats identified within 2km and 1km of the site respectively, as such no further action is required. The site is located within a SSSI Impact Risk Zone; however it does not include residential developments within a criterion that would trigger an assessment. The site is also located within the centre of Wythenshawe Town Centre, buffered from any designated sites by substantial urban development.

However, green spaces within the immediate vicinity of the site may be subject to noise and light pollution, dust deposition or chemical spills. As such, a CEMP should be produced to outline appropriate control measures to mitigate against impacts. Measures may include, but are not limited to

- Noise and vibration minimisation;
- Pollution and ground contamination control measures;

- Lighting (e.g. working during daylight hours where possible and avoidance of artificial lighting);
- Suitable material storage; and
- Suitable waste management.

Ash trees on site were reported to have been in varying staged of ADB, as such it is recommended that the site be subjected to a survey by a suitably qualified arboriculturist in order to exercise the tree owners' duty of care in relation their responsibility in respect of tree safety.

Where possible trees and hedgerows should be retained.

Species

Bats

Foraging/Commuting

The site holds moderate suitability for foraging and commuting bats, however as habitats related to foraging are being retained, no further surveys are required.

However, high levels of artificial lighting can disturb this nocturnal species, as such a sensitive lighting scheme should be implemented for both construction and operational phases of development. Lighting design should follow Guidance Note 8 from the Bat Conservation Trust (BCT) and the Institution of Lighting Professionals (ILP)¹⁸, which includes:

- Use of low-UV warm white LED bulbs with low illumination/LUK levels;
- Use of directional, downward facing and shielded lights which point away from adjacent buildings, or areas such as soft landscaping where possible and where health and safety restrictions allow;
- External lights on curfew controls/movement sensors to be considered where possible to reduce light pollution when not needed; and
- Direct lighting on retained habitat, green infrastructure and soft landscaping (where included), should be minimised where possible and where health and safety restrictions allow, particularly between April and October, inclusive.

Additionally, design proposals of the new development should seek to increase opportunities and suitability of the site for foraging and commuting bats. See details provided within the Biodiversity Enhancements section below.

Roosting: Buildings

In the absence of mitigation, the development could result in the destruction or disturbance of potential bat roosts. As outlined in best practice guidelines¹³ additional surveys are required, during which ecologists will visit the site with bat detector equipment to watch for bats emerging from or re-entering the building via PRF's or otherwise. The following buildings will have surveys carried out based on their suitability:

- B1, B7 (moderate suitability) - two separate dusk emergence surveys to be carried out between May and September. Surveys to commence 15 minutes before sunset and two hours after.
- B2, B5, B6 (low suitability) - a single dusk emergence survey to be carried out between May and August. Survey to commence 15 minutes before sunset and 1.5 hours after.

Buildings with no substantial PRF's do not require further surveys.

Bats activity is influenced by ambient temperatures, and to ensure detectability survey(s) should take place in temperatures no lower than 10°C at sunset, with no excessive rainfall or strong winds. S

Roosting: Trees

One tree on the site was identified as having PRF's and was assigned as FAR.

It is understood that this tree is not due for removal, as such no further action is required. However, if the proposed development is adapted and the tree is removed, an inspection at height (e.g. an aerial PRF survey) should be undertaken beforehand, to fully assess the presence/likely absence of roosting bats. Enhancements for bats are outlined in 5.2

Birds

The site contains good value habitat for nesting birds in the form of shrub, trees and hedgerow and common bird species presence has been observed on site. However, considering the highly urban surroundings and absence of Schedule 1 species, no further bird surveys are required.

It is recommended that suitable bird habitat be retained where possible. However, where vegetation removal is necessary, clearance should take place outside of the nesting bird season (March to August inclusive). If this is not possible, clearance should be undertaken within 48 hours following a nesting bird check by a suitably qualified ecologist. In the event that a bird nest is found, an exclusion zone is to be agreed and adhered to until an ecologist has monitored and confirmed that chicks have fledged, or that the nest is no longer in use.

Enhancements for birds are outlined in 5.2

Invertebrates

Habitat on site is likely to support a range of widespread invertebrate species. To continue supporting invertebrate populations, it is recommended that hedgerow, scrub and grassland be retained where possible.

Invasive Non-native Species

Invasive and non-native plant species have been confirmed on site. No further surveys in relation to INNS are required. However, if clearance commences removal and destruction should commence in a manner that prevents spread and should be detailed within a CEMP.

Other Priority/Notable Species

Hedgehog

Precautionary Methods of Works (PMoW) should be adhered to during development to prevent the injury or killing of hedgehogs. It is expected that some hedgerows will be retained, however if development required the removal of potential hedgehog habitat phased clearance should be carried out to allow hedgehogs to disperse. Additionally, all excavations, trenches, holes or pipes should be covered to prevent animals from falling in and becoming trapped, similarly any netting or similar material should not be left on the ground to avoid entanglement. Finally, all materials, chemicals and equipment and waste is to be stored/disposed of appropriately to prevent injury or poisoning.

Other Wildlife

Fox

No surveys or specific mitigation measures are required for foxes; however, the species is protected from unnecessary harm or suffering by the Animal Welfare Act 2006.

Ecological Enhancements

Where feasible, it is recommended that the following ecological enhancements could and should be incorporated within the site design going forward (list is not exhaustive):

Habitats

- Scrub, hedgerows and scattered trees throughout the site should also be retained and enhanced where possible. Enhancements could be provided by removing invasive, non-native species, managing habitats to provide clearings or areas of varied vegetation height. Management should also encourage natural regrowth by not removing any seedlings or saplings which may develop;
- Enhanced wildflower-friendly landscaping, including the use of native wildflower seed mix. Species could include those listed on the Royal Horticultural Society (RHS) Plants for Pollinators Guide¹⁹. This could be incorporated into the soft landscaping that is expected to replace part of the car park;
- Enhanced shrub planting, with focus on native, woody species that will provide shelter and nesting opportunities, and;
- Installation of invertebrate features, such as insect hotels and bee houses/posts, as part of green roofs or soft landscaping.

Species

Bats

The proposed development should provide enhancements for bat species within the area through the provision of bat boxes and landscaping.

Where bat boxes are incorporated into plans, they should be fixed onto the elevations of the new buildings or facades near foraging/commuting habitat to align with national conservation objectives.

These should be positioned at a minimum of 3m from ground level, away from significant disturbance (human/machinery/light spill) and ideally on a south facing aspect if possible. Furthermore, landscaping could include strategic planting of herbaceous night scented species, such as lavender *Lavandula sp.* or jasmine *Jasminum officinale* to attract flying invertebrates thus providing foraging resources for bats.

Recommendations in regard to bat enhancements will be refined after the completion of bat surveys.

Birds

The proposed development should look to provide suitable habitats and nesting opportunities to support common bird species. Bird nest boxes should be installed within the fabric of the new buildings to provide additional nesting opportunities for birds. Full south facing building aspects should be avoided to prevent overheating of the nest/chicks during summer months.

Additionally, compensatory planting should focus on species with dense shrubby growth, providing shelter and nesting opportunities for birds.

General Recommendations

A Construction Environmental Management Plan (CEMP) should be produced and implemented in accordance with British Standard 42020: 2013 Biodiversity²⁰, to mitigate against direct or indirect impacts of development on green spaces located immediately adjacent to the site.

In accordance with the Environment Act 2021 and the NPPF 2024, all non-exempt development proposals are required to achieve a minimum of 10% Biodiversity Net Gain (BNG). A measurable net gain must be demonstrated via a Biodiversity Net Gain Assessment (BNGA) using the appropriate Statutory Biodiversity Metric (SBM) or Small Sites Metric (SSM).

6.0 CONCLUSION

Greengage was commissioned by Muse Places and WCHG to undertake a Preliminary Ecological Appraisal for the site known as Brotherton House, in Wythenshawe, Greater Manchester in order to establish the ecological value of the site and its potential to support protected/priority habitats and species. This information is required to address the impacts of the development and inform appropriate mitigation and compensation measures. The PEA identified the following ecological constraints associated with the site:

- Non statutory designated sites located within 2km of the site
- Local priority habitats located within 1km of the site
- Moderate suitability to support bats
- High suitability to support birds
- Moderate support other notable/protected species (hedgehog)

Based on the observed habitats and species on site, it is recommended that Precautionary Methods of Works be adhered to prevent against injury or death of wildlife. Furthermore, targeted surveys are to be carried out to determine the presence of roosting bats. Where habitats are retained, it is recommended they are improved through ecological enhancements; where habitats are scheduled for removal appropriate compensations should be made, i.e. planting of native shrubs and tree species. Finally, the provision of bird and bat boxes should be installed to support associated species. Further details can be found in Section. 5.2. These actions have been recommended to allow for legislation and policy compliance (see context in Appendix C).

Key actions should be included within CEMP documents for the site, which could be secured through planning conditions. A BNGA report should be produced using the Statutory Biodiversity Metric (SBM) in accordance with the Environmental Act, 2021, NPPF, 2024 and local policy drivers.

Based on the CIEEM Advice Note 'On The Ecological Lifespan of Ecological Reports and Surveys' this report and associated surveys will be considered valid for 18 months of their undertaking. Reports and/or surveys exceeding 18 months will not be considered valid, and will require updating, subject to an assessment by a professional ecologist.

APPENDIX A UKHAB MAP

Figure A.1 UKHAB Map

APPENDIX B SITE PHOTOGRAPHS

Plate B.1 Bird nest on light structure



Plate B.2 Dried out ornamental pond



Plate B.3 Building 1



Plate B.4 Building 1



Plate B.5 Building 5 and car park which comprises of hardstanding and linear strips of grass and shrubs



Plate B.6 Building 7 (left) surrounded by vegetation, building 6 (right)



Plate B.7 Building 2 and hedgerow 1



Plate B.8 Hardstanding with parcels of vegetation



Plate B.9 Hardstanding with scattered trees



Plate B.10 Hardstanding with trees that form part of the hedgerow



Plate B.11 Modified grassland surrounded by hedgerows and scattered trees



Plate B.12 Example of hedgerow on site



Plate B.13 Dried out modified grassland



APPENDIX C RELEVANT LEGISLATION AND POLICY

C.1 LEGISLATION

Current key legislation relating to ecology includes the Environment Act 2021²¹, Wildlife and Countryside Act 1981 (as amended)²²; The Conservation of Habitats and Species Regulations 2019 ('Habitats & Species Regulations')²³, The Countryside and Rights of Way Act 2000 (CRoW Act)²⁴, and The Natural Environment and Rural Communities Act, 2006²⁵.

The Environment Act, 2021

Under the Environment Act²⁶, 2021, as of 12th February 2024 and 2nd April 2024, it is mandatory in England for new developments (with a small number of exceptions) to deliver a minimum 10% biodiversity net gain (BNG), as measured by the Statutory Biodiversity Metric or Small Sites Metric (SSM) respectively, secured through planning condition as standard (as per schedule 14 of the Act). Approach to the delivery of BNG must follow the mitigation hierarchy, with avoidance of impact and on-site compensation/gains prioritised, ahead of the use of off-site compensation, or the purchase of statutory credits.

The Act introduces the condition that no development may begin unless a Biodiversity Gain Plan (BGP) has been submitted and approved by the LPA.

The Act also amends requirements of the NERC Act, 2006, adding the need to not just conserve, but enhance biodiversity through planning projects. Furthermore, it introduces the need for the LPA to have regard to relevant local nature recovery strategies and relevant species/protected site conservation strategies, when making their decision.

Under the Act, the enhancements must be maintained for at least 30 years.

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

The Conservation of Habitats & Species Regulations replace The Conservation (Natural Habitats, etc.) Regulations 1994 (as amended)²⁷, and transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora ('EU Habitats Directive')²⁸, and Council Directive 79/409/EEC on the Conservation of Wild Birds ('Birds Directive')²⁹ into UK law (in conjunction with the Wildlife and Countryside Act).

Regulation 43 and 47 respectively of the Conservation of Habitats & Species Regulations makes it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2 (European protected species of animals), or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 5 (European protected species of plant). Development that would contravene the protection afforded to European protected species requires a derogation (in the form of a licence) from the provisions of the Habitats Directive.

Regulation 63 (1) states: 'A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which –

(a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects); and

(b) is not directly connected with or necessary to the management of that site;

must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.'

Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 (as amended) is the principal mechanism for the legislative protection of wildlife in Great Britain. This legislation is the means by which the Convention on the Conservation of European Wildlife and Natural Habitats³⁰ (the 'Bern Convention') and the Birds Directive and EU Habitats Directive are implemented in Great Britain.

The Countryside and Rights of Way Act 2000

The Wildlife and Countryside Act has been updated by the CRoW Act. The CRoW Act amends the law relating to nature conservation and protection of wildlife. In relation to threatened species it strengthens the legal protection and adds the word 'reckless' to the offences of damaging, disturbing, or obstructing access to any structure or place a protected species uses for shelter or protection, and disturbing any protected species whilst it is occupying a structure or place it uses for shelter or protection.

The Natural Environment and Rural Communities Act 2006

The Natural Environment and Rural Communities Act 2006 states that every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. Biodiversity Action Plans provide a framework for prioritising conservation actions for biodiversity.

Section 41 of the Natural Environment and Rural Communities Act requires the Secretary of State to publish a list of species of flora and fauna and habitats considered to be of principal importance for the purpose of conserving biodiversity. The list, a result of the most comprehensive analysis ever undertaken in the UK, currently contains 1,149 species, including for example, hedgehog (*Erinaceus europaeus*), and 65 habitats that were listed as priorities for conservation action under the now defunct UK Biodiversity Action Plan³¹ (UK BAP). Despite the devolution of the UK BAP and succession of the UK Post-2010 Biodiversity Framework³² (and Biodiversity 2020 strategy³³ in England), as a response to the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020 and EU Biodiversity Strategy (EUBS)³⁴, this list (now referred to as the list of Species and Habitats of Principal Importance in England) will be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 41 of the Natural Environment and Rural

Communities Act 2006 'to have regard' to the conservation of biodiversity in England, when carrying out their normal functions.

Biodiversity Action Plans

Non-statutory Biodiversity Action Plans (BAPs) have been prepared on a local and regional scale throughout the UK over the past 15 years. Such plans provide a mechanism for implementing the government's broad strategy for conserving and enhancing the most endangered ('priority') habitats and species in the UK for the next 20 years. As described above the UK BAP was succeeded in England by Biodiversity 2020 although the list of priority habitats and species remains valid as the list of Species of Principal Importance for Nature Conservation.

Regional and local BAPs are still valid however and continue to be updated and produced.

Detail on the relevant BAPs for this site are provided in the main text of this report.

Legislation Relating to Badger

Badgers and their setts are protected under the Protection of Badgers Act 1992, an Act which consolidated and strengthened previous legislation, including the Badgers (Further Protection) Act 1991, the Badgers Act 1991 and the Badgers Act 1973. In England and Wales, it is an offence to:

- Wilfully kill, injure or take a badger;
- Attempt to kill, injure or take a badger;
- Cruelly ill-treat a badger;
- Dig for a badger;
- Intentionally or recklessly damage or destroy a badger sett, or obstruct access to it;
- Cause a dog to enter a badger sett; or
- Disturb a badger when it is occupying a sett.

A licence may be obtained from the appropriate authority (Natural England or Natural Resources Wales) to carry out any activities prohibited by the Act, subject to the conditions of the licence being adhered to.

Legislation Relating to Bats

All UK bats and their roosts are protected by law. Since the first legislation was introduced in 1981, which gave strong legal protection to all bat species and their roosts in England, Scotland and Wales, additional legislation and amendments have been implemented throughout the UK.

Six of the 18 British species of bat have Biodiversity Action Plans (BAPs) assigned to them, which highlights the importance of specific habitats to species, details of the threats they face and proposes measures to aid in the reduction of population declines.

Although habitats that are important for bats are not legally protected, care should be taken when dealing with the modification or development of an area if aspects of it are deemed important to bats such as flight corridors and foraging areas.

The Wildlife & Countryside Act 1981 (WCA) was the first legislation to provide protection for all bats and their roosts in England, Scotland and Wales (earlier legislation gave protection to horseshoe bats only.)

All eighteen British bat species are listed in Schedule 5 of the Wildlife and Countryside Act, 1981 and under Annex IV of the Habitats Directive, 1992 as a European protected species. They are therefore fully protected under Section 9 of the 1981 Act and under Regulation 43 of the Conservation of Habitats and Species Regulations 2019, which transposes the Habitats Directive into UK law.

Consequently, it is an offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat; and
- Intentionally or recklessly obstruct access to a bat roost.

Legislation Relating to Birds (Nesting)

Nesting birds, with certain exceptions, are protected from intentional killing, destruction of nests and destruction/taking of eggs under the Wildlife and Countryside Act 1981 (as amended) and the CROW Act. Any clearance of dense vegetation should therefore be undertaken outside of the nesting bird season, taken to run conservatively from March to August (inclusive), unless an ecologist confirms the absence of active nests prior to clearance.

Legislation Relating to Invasive Non-native Species

Section 14 of the Wildlife and Countryside Act 1981 (as amended) prevents the release into the wild of certain plants and animals which may cause ecological, environmental or socio-economic harm. It prohibits the introduction into the wild of any animal of a kind which is not ordinarily resident in, and is not a regular visitor to, Great Britain in a wild state, or any species of animal or plant listed on Schedule 9 of the Act. In the main, Schedule 9 lists non-native species that are already established in the wild, but which continue to pose a conservation threat to native biodiversity and habitats, such that further releases should be regulated. The Schedule also includes some native species (for example barn owl) in order to provide a level of control to ensure that releases, in particular reintroduction programs, are carried out in an appropriate manner and biodiversity is properly safeguarded.

C.2 PLANNING POLICY

National

National Planning Policy Framework

The National Planning Policy Framework (NPPF) 2024³⁵ sets out the Government's planning policies for England, including how plans and decisions are expected to apply a presumption in favour of sustainable development. Chapter 15 of the NPPF focuses on conservation and enhancement of the natural environment, stating plans should 'identify and pursue opportunities for securing measurable net gains for biodiversity'.

It goes on to state: 'if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused'. Alongside this, it acknowledges that planning should be refused where irreplaceable habitats such as ancient woodland are lost.

Regional

Greater Manchester Biodiversity Strategy 2022-2030

Objective 1 -Managing and understanding biodiversity

Key Priorities

- A Nature Recovery Network Strategy, which is contextualised for the urban character of Manchester, must be developed for Greater Manchester. This should guide the focus of all future habitat management work.
- All priority wildlife sites must be in active management by 2030.
- Key indicator species must be identified and action plans for each key indicator species written. These action plans should sit alongside the Nature Recovery Network Strategy to guide any habitat management work across the Recovery Network. Key indicator species will also need to be recorded regularly to measure our impact.

Objective 2 -Involving people

Key Priorities

- We must find creative ways to connect and involve new audiences with nature and the natural environment in Manchester.
- The Manchester Biodiversity Action Group (MBAG) must support and empower local communities to take meaningful action for nature in the city.
- Land managers and practitioners in the city must be provided with the necessary knowledge and skills to protect and recover biodiversity.

Greater Manchester Combined Authority Places for Everyone

GMCA adopted the PfE³⁶ in 2022. Places for Everyone combines nine districts; Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford, and Wigan to create a long-term plan for jobs, new homes, and sustainable growth. Modifications to the plan were made in 2023 and are currently inviting views on the modifications.

There are ten Strategic Objectives set out in Places for Everyone which include:

- Objective 1: Meet our housing need;
- Objective 2: Create neighbourhoods of choice;
- Objective 3: Playing our part in ensuring a thriving and productive economy in all parts of Greater Manchester;
- Objective 4: Maximise the potential arising from our national and international assets;
- Objective 5: Reduce inequalities and improve prosperity;
- Objective 6: Promote the sustainable movement of people, good and information;
- Objective 7: Playing our part in ensuring that Greater Manchester is a more resilient and carbon neutral city-region;
- Objective 8: Improve the quality of our natural environment and access to green spaces;
- Objective 9: Ensure access to physical and social infrastructure; and
- Objective 10: Promote the health and wellbeing of communities.

The following strategies and policies have been identified as of relevance for the Assessment matrix and the socio-economic impacts of new developments:

Access to Open Space:

Objective 8: Improve the quality of our natural environment and access to green spaces

This objective works to enhance special landscapes, green infrastructure, biodiversity and geodiversity, improve access to the natural environment and green spaces (including parks), and promoting the role of green space in resilience to climate change and reducing flood risk. This objective therefore aims to improve the access to open space for local residents.

Policies:

- Policy JP-Strat 13: Strategic Green Infrastructure
 - River valleys and waterways, lowland wetlands and mosslands, uplands, and trees and woodland will be protected and enhanced as strategic green infrastructure assets.
- Policy JP-G 2: Green Infrastructure Network
 - A strategic approach will be taken to the protection, management and enhancement of our Green Infrastructure in order to protect and enhance the ecosystem services. The protection,

management and enhancement of Green Infrastructure will contribute to the development of a Nature Recovery Network for Greater Manchester.

- Policy JP-G 3: River Valleys and Waterways
 - River valleys and waterways will be protected and improved as central components of our Green Infrastructure Network and a vital part of a Nature Recovery Network, making a major contribution to local identity, quality of life and the natural environment.
- Policy JP-G 4: Lowland Wetlands and Mosslands
 - The distinctive flat, open landscape and network of habitats of ecologically valuable lowland wetlands and mosslands will be protected, enhanced and restored, with a strong emphasis on reconnecting local communities to the natural and historic environments.
- Policy JP-G 5: Uplands
 - Our upland areas contain important component parts of the green infrastructure network, including significant areas of blanket bog priority habitat, Sites of Biological Importance (SBIs), Sites of Special Scientific Interest (SSSIs), Special Areas of Conservation (SACs), Special Protection Areas (SPAs), woodlands and habitats vulnerable to climate change.
- Policy JP-G 6: Urban Green Space
 - To ensure there is an appropriate scale, type, quality and distribution of accessible urban green space that can support a high quality of life and other important green infrastructure functions:
 - existing urban green space will be protected and enhanced in balance with other considerations; and
 - we will work with developers and other stakeholders to deliver new high quality urban green spaces which meet accessibility standards.
- Policy JP-G 7: Trees and Woodland
 - In making planning decisions and carrying out other associated activities, we will work to deliver the aims and objectives of the Greater Manchester Tree and Woodland Strategy, aiming to significantly increase tree cover, protect and enhance woodland, and connect people to the trees and woodland around them.
- Policy JP-G 8: Standards for Greener Places
 - We will develop standards in relation to 'Access to natural green space', and 'A "Green Factor"'.

Climate Change and Sustainable Construction:

Objective 2: Create neighbourhoods of choice

This objective works towards the prioritisation of the use of brownfield land, the location of housing within close proximity to town centres and public transport, and the facilitation of sustainable modes of transport, allows for targets towards the reduction in carbon emissions to support the tackle for climate change.

Objective 7: Playing our part in ensuring that Greater Manchester is a more resilient and carbon neutral city-region

This objective works towards promoting the carbon neutrality of development by 2028, promoting sustainable patterns of development that minimise the need to travel and contribute to cleaner air, creating development to reduce car dependency, provisioning of infrastructure for cleaner vehicles, and improving energy efficiency and the generation of renewable and low carbon energy.

Policies:

- Policy JP-S 1: Sustainable Development
 - Development should aim to maximise economic, social and environmental benefits, minimise adverse impacts, utilise sustainable construction techniques and seek opportunities to secure net gains. Preference will be given to using previously developed, brownfield land and vacant buildings.
- Policy JP-S 2: Carbon and Energy
 - The aim to deliver a carbon neutral Greater Manchester no later than 2038 with a dramatic reduction in greenhouse gas emissions by following a range of measures.
- Policy JP-S 3: Heat and Energy Networks
 - Provision of decentralised energy infrastructure in order to deliver low carbon growth, carbon reductions and increase in local energy generation by following a range of measures.
- Policy JP-S 4: Resilience
 - Development will be managed to increase the capacity of citizens, communities, businesses and infrastructure to survive, adapt and grow in the face of physical, social, economic and environmental challenges, including climate change, by following a range of measures.
- Policy JP-S 5: Flood Risk and the Water Environment
 - An integrated catchment based approach will be taken to protect the quantity and quality of water bodies and managing flood risk by following a range of measures.
- Policy JP-S 7: Resource Efficiency
 - A range of measures will allow Greater Manchester to create a circular economy and zero-waste economy to become a leading green city region by 2038.
- Policy JP-G 9: A Net Enhancement of Biodiversity and Geodiversity
 - Across the plan as a whole, a net enhancement of biodiversity resources will be sought.
- Policy JP-G 10: The Green Belt
 - The Green Belt as defined on the Policies Map will be afforded strong protection in accordance with the National Planning Policy Framework. The Green Belt will continue to be managed positively to serve the five purposes set out in national policy.
- Policy JP-G 11: Safeguarded Land

- Safeguarded land where an area of open land, outside the urban area and not in the Green Belt, is identified on the Policies Map and protected from development.
- Policy JP-P 1: Sustainable Places
 - We aim to become one of the most liveable city regions in the world, consisting of a series of beautiful, healthy and varied places, each having the following key attributes that all development, wherever appropriate, should be consistent with the detailed measures.

Manchester Core Strategy 2012 - 2027 Policy EN 15 - Biodiversity and Geological Conservation The Council will seek to maintain or enhance sites of biodiversity and geological value throughout the City. Particular consideration will be given to:

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

Developers will be expected to identify and implement reasonable opportunities to enhance, restore or create new biodiversity, either on-site or adjacent to the site, contributing to linkages between valuable or potentially valuable habitat areas where appropriate, with reference to:

- The Manchester Biodiversity Strategy, which provides further details of priority habitats within Manchester and opportunities for biodiversity enhancement including corridors such as the Mersey, Medlock and Irk river valleys, the canals and disused railway lines and areas of managed greenspace particularly in parks;
- The Green Infrastructure Framework for Greater Manchester, which encompasses an ecological framework that seeks to guide and inform habitat creation and repair, including identifying large 'biodiversity opportunity areas' including the Moston Brook Corridor and Nutsford Vale;
- The Open Space, Sport & Recreation Study, which identifies areas where there is a deficit of natural and semi-natural greenspace, opportunities for green corridors and other linkages;
- Manchester's Climate Change Action Plan;
- The Strategic Flood Risk Assessment (SFRA) for Manchester;

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- The Habitats Regulations Assessment (HRA) for Manchester, which gives detailed consideration to Special Areas of Conservation (SACs), including the Rochdale Canal SAC just outside the district boundary;
 - The River Basin Management Plan for the North West;
 - The Manchester Tree Strategy.

Any adverse impacts on biodiversity will need to be justified against the wider benefits of the proposal, assessed against other LDF policies. Where adverse impacts are unavoidable, developers will be required to provide appropriate mitigation and/or compensation. Development should wherever possible seek to maintain, enhance or restore existing geology.

REFERENCES

- ¹ GOV.UK., (2021). Environment Act 2021. Available at: <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>
- ² GOV.UK., (2023). National Planning Policy Framework. [online] Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>
- ³ GOV.UK. (2023). Statutory Biodiversity Metric. Available at: <https://www.gov.uk/government/publications/statutory-biodiversity-metric-tools-and-guides>
- ⁴ BSI, (2013). British Standard 42020:2013: Biodiversity – Code of practice for planning and development, BSI Standards Publication.
- ⁵ UKHab Ltd (2023); UK Habitat Classification Version 2.0 (at <https://www.ukhab.org>)
- ⁶ CIEEM, (2017). Guidelines for Preliminary Ecological Appraisal, 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.
- ⁷ MAGIC, (2019). Interactive Map. (Partnership project involving six government organisations: Defra (Department for Environment, Food and Rural Affairs); English Heritage; Natural England; Environment Agency; Forestry Commission; Department for Communities and Local Government). Available at: www.magic.gov.uk.
- ⁸ Natural England (2023); GCN Risk Zones. Available at: <https://naturalengland-defra.opendata.arcgis.com/search?q=gcn>
- ⁹ UNEP (2022). Kunming-Montreal Global Biodiversity Framework to 2030. Available at <https://www.unep.org/kunming-montreal-global-biodiversity-framework>
- ¹⁰ HM Government, (2006). Natural Environment and Rural Communities Act 2006. HMSO
- ¹¹ Bickmore, C.J. (2002) Hedgerow survey handbook: a standard procedure for local surveys in the UK. London, DEFRA.
- ¹² HM Government, (1997). Hedgerows Regulations 1997. HMSO
- ¹³ Collins, J (ed.) (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines (4th edition). The Bat Conservation Trust, London.
- ¹⁴ Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Version 1.1. Chartered Institute of Ecology and Environmental Management, Ampfield.
- ¹⁵ Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D., and Win I. (2021); The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds* 114: 723-747. Available online at <https://britishbirds.co.uk/content/status-our-bird-populations>
- ¹⁶ Griffiths, R.A. Sewell, D., & McCreagh, R.S. (2010). Dynamics of a declining amphibian metapopulation: Survival, dispersal and the impact of climate. *Biological Conservation*, 143: 485-491.
- ¹⁷ Peoples Trust for Endangered Species (2025). Current Dormouse Distribution Map. Available at [Current Dormouse Distribution Map - People's Trust for Endangered Species](https://www.ptes.org/2025/01/current-dormouse-distribution-map)
- ¹⁸ Institution of Lighting Professionals. (2023). Guidance Note 8: Bats and artificial lighting at night. ILP.
- ¹⁹ Royal Horticulture Society (2025). RHS Plants for Pollinators. Available at [RHS Plants for Pollinators / RHS](https://www.rhs.org.uk/plants-for-pollinators)
- ²⁰ BSI, (2013). British Standard 42020:2013: Biodiversity – Code of practice for planning and development, BSI Standards Publication.
- ²¹ GOV.UK., (2021). Environment Act 2021. Available at: <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>
- ²² HM Government, (1981). Part I and Part II of Wildlife and Countryside Act (as amended). HMSO.
- ²³ HM Government, (2019). The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Statutory Instrument 2019 no. 579.
- ²⁴ HM Government, (2000). The Countryside and Rights of Way Act. HMSO.
- ²⁵ HM Government, (2006). Natural Environment and Rural Communities Act 2006. HMSO.
- ²⁶ GOV.UK. (2021). Environment Act 2021. Available at: <https://www.legislation.gov.uk/ukpga/2021/30/contents/enacted>
- ²⁷ HM Government, (1994). The Conservation (Natural Habitats, &c.) Regulations. HMSO.
- ²⁸ CEC (Council of the European Communities), (1992). Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora.

²⁹ The European Parliament And Of The Council, (2009). Directive 2009/147/EC On The Conservation Of Wild Birds (Codified Version).

³⁰ CEC (Council of the European Communities), (1979). Convention on the Conservation of European Wildlife and Natural Habitats (Bern, 19.IX.1979). EC.

³¹ UK Biodiversity Action Plan, (2007). UKBAP Priority Species and Habitats. <https://jncc.gov.uk/our-work/uk-bap-priority-species/>

³² JNCC and Defra (on behalf of the Four Countries' Biodiversity Group), (2012). UK Post-2010 Biodiversity Framework. July 2012. Available from: <http://jncc.defra.gov.uk/page-6189>

³³ Defra, (2011). Biodiversity 2020: A strategy for England's wildlife and ecosystem services.

³⁴ European Commission, (2012). Our life insurance, our natural capital: an EU biodiversity strategy to 2020 European Parliament resolution of 20 April 2012 on our life insurance, our natural capital: an EU biodiversity strategy to 2020 (2011/2307(INI)).

³⁵ GOV.UK., (2024). National Planning Policy Framework. [online] Available at: <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

³⁶ GMCA (2021) Places for Everyone: Joint Development Plan Document - Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Tameside, Trafford, Wigan <https://www.greatermanchester-ca.gov.uk/media/4838/places-for-everyone.pdf>