



JLR

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# Preliminary Ecological Appraisal

LBC2 JEA Bodyside, Halewood





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# **Preliminary Ecological Appraisal**

LBC2 JEA Bodyside, Halewood

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# Executive summary

WSP UK Ltd. (WSP) were commissioned by Jaguar Land Rover (JLR) Limited (the 'Client') to undertake a Preliminary Ecological Appraisal (PEA) including a Preliminary Roost Assessment of buildings and structures and Ground Level Tree Assessment (GLTA) at a site within the JLR Halewood Plant. The Proposed Development is the demolition of an existing brick-built traffic office building to facilitate the erection of three temporary structures to provide storage and distribution space (use class B8) and associated works. The building to be demolished is centred on OS grid reference SJ 44815 84283 in Halewood, Liverpool, L24 9BJ and hereafter referred to as 'The Site'. An additional 50m buffer was implemented (the 'Survey Area'). The Site boundary and the Survey Area are presented on **Figure 1**.

The survey was undertaken on 11 June 2024 to provide baseline ecological conditions for the Site. The survey was undertaken to determine whether legally protected/notable species or habitats were present or likely to be present and to assess the bat roosting potential of buildings, structures, and trees in the Survey Area.

One statutory designated site of international importance was identified within 10km of the Site, the River Mersey Estuary RAMSAR and Special Protection Area (SPA). One Local Nature Reserves (LNR) was identified within 2km of the Site, presented on **Figure 2**. The Site is situated within the Impact Risk Zone (IRZ) for the Mersey Estuary Site of Special Scientific Interest (SSSI). Three non-statutory designated sites were identified within 2km of the Site, presented on **Figure 2**. Due to the localised nature of the Proposed Development, the distance and lack of hydrological connectivity between the designated sites and the JLR Site, it is not anticipated that the Proposed Development will have an impact on designated sites.

The habitats within the Survey Area were all of very low ecological value consisting of hardstanding, buildings, and a small patch of modified grassland.

The one tree within the Survey Area was assessed to have no bat roost potential. A total of four buildings or structures were identified within the Survey Area and assessed for bat roosting suitability in line with The Bat Conservation Trust (BCT)'s Good Practice Guidelines (Collins, 2023). This included one building with high roosting suitability (B3), two with moderate roosting suitability (B1, B2) and one structure with negligible roosting suitability (B4). Further surveys are recommended primarily in the form of dusk emergence surveys on the moderate and high roosting suitability buildings.

Specific recommendations and mitigation have been recommended to ameliorate the effects of the Proposed Development and to ensure compliance with relevant legislation. Other recommendations include the retention and enhancement of habitats where possible, creation of compensatory habitat, general good practices to adhere to during the demolition works.



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# 1 Introduction

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## 1.1 Background

- 1.1.1. WSP UK Ltd. (WSP) was commissioned by Jaguar Land Rover (JLR) Limited (the 'Client') to undertake a Preliminary Ecological Appraisal (PEA) including a Preliminary Roost Assessment (PRA) of buildings and structures and Ground Level Tree Assessment (GLTA) at the JLR Halewood Plant.
- 1.1.2. The Jaguar Land Rover Halewood proposal consist of the demolition of an existing brick-built traffic office building to facilitate the erection of three temporary structures to provide storage and distribution space (use class B8) and associated works. This will hereafter be referred to as the 'Proposed Development'.
- 1.1.3. This PEA is based on the site plans and scheme information provided by JLR in its revised structure and link canopy plans dated May 2024, hereafter referred to as 'the Site'. The Site covers approximately 280m<sup>2</sup> and is centred on OS grid reference SJ 44815 84283 in Halewood, Liverpool, L24 9BJ. An additional 50m buffer was implemented (the 'Survey Area'). The Site boundary and the Survey Area used for the purpose of the PEA is shown on Figure 1.

## 1.2 Scope of Report

- 1.2.1. JLR commissioned WSP to complete a PEA, including PRA – Building and Structures and GLTA, of the Survey Area in May 2024.
- 1.2.2. This Preliminary Ecological Appraisal Report (PEAR) presents the findings of the PEA and has been prepared with reference to current good practice guidance published by the Chartered Institute for Ecology and Environmental Management in relation to PEAs, report writing and Ecological Impact Assessment (EcIA) (CIEEM, 2017a, 2017b and 2018) and guidance contained in the British Standard for biodiversity (British Standards Institute (BSI), 2013).
- 1.2.3. A PEA aims to:
  - Provide baseline ecological information about the Site and a surrounding study area with reference to ecological features that could be affected by the Proposed Development and therefore form key considerations in the design of the proposals. Ecological features include designated sites<sup>1</sup>, and protected or priority species and habitats<sup>2</sup>;

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<sup>1</sup> As defined in Box 14 in CIEEM (2018) Ecological Impact Assessment guidelines.

<sup>2</sup> The terms 'priority habitats' and 'priority species' are used for habitats and species considered as priorities for conservation, as defined in Box 1 in CIEEM (2017a) guidelines for PEAs. It includes for example those listed as local priority on local Biodiversity Action Plans (LBAPs), those listed as national priority such as Species of Principal Importance (SPI) and Habitats of Principal Importance (HPI) and those on red lists, including Birds of Conservation Concern (BoCC) (Stanbury et al., 2021). It should not be confused with priority habitats and species as listed in the EU

- Complete a PRA – Structures and GLTA with ground-based inspections within the Survey Area, to identify the suitability or otherwise for bat roosts to be present;
- If necessary, provide recommendations for further surveys and/or design changes to enable compliance with relevant nature conservation legislation and planning policy; and
- Identify the likely need for avoidance, mitigation, or compensation measures, and to highlight opportunities for enhancement.

1.2.4. The PEA is for use by JLR to inform the design of the Proposed Development. It is based on the site plans and scheme information described in **Section 1.1**. Any future variations in the scheme may result in the need to update the appraisal.

1.2.5. It is not usually appropriate to submit a PEAR in support of a planning application (CIEEM, 2017a). As the scheme progresses to planning application stage, the PEAR should be superseded by, or appended to, an EcIA report for submission with a planning application. This should include an evaluation of the importance of ecological features and assessment of the significance of effects.

### 1.3 Relevant Legislation and Policy

1.3.1. The PEA has been prepared in the context of the current national policy and legislative framework for nature conservation as summarised in **Appendix A**. Section 4 discusses the implications of the legislation and policy relevant to the Proposed Development. This does not constitute legal advice, and the original legislation should be consulted for details.

1.3.2. The appraisal has been compiled with reference to the following local planning policy documents:

- North Merseyside Biodiversity Action Plan.

1.3.3. Key local planning policies driving recommendations made in this report are summarised below, where they differ to national policy and legislation:

- Policy CS5 of the Knowsley Local Plan (LBD, 2016) protects the existing Green Belt within Knowsley LPA;
- Policy CS8 of the Knowsley Local Plan (LBD, 2016) maintains and enhances existing green infrastructure;
- Policy CS21 protects existing greenspace and trees; and
- Policy 15, 16, 17 of Liverpool City Region Spatial Planning Statement of Common Ground Oct 2019.

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Habitats Directive, or as previously used to denote those afforded the highest level of priority for conservation under the UKBAP.

## 2 Methods

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### 2.1 Overview

- 2.1.1. This PEA has been prepared with reference to current good practice guidance published by the Chartered Institute for Ecology and Environmental Management (CIEEM 2017 and 2019) and UK Habitat classification documents (UKHab, 2023).
- 2.1.2. This PEA is based on the following data sources:
- An ecological desk study;
  - A habitat survey;
  - A protected/Priority Species assessment; and
  - A PRA – Buildings and GLTA.

### 2.2 Desk Study

- 2.2.1. The desk study was undertaken in June 2024 to review existing ecological baseline information (**Table 2-1**). In addition, freely available aerial photography was consulted to show Site habitats and the local context. The scope of the data collection was proportionate to the potential impacts of the Proposed Development.
- 2.2.2. The ecological desk study was carried out by a seasonal ecologist with a 'Basic' level of competence in ecological assessment (CIEEM, 2021a), assisted by an Associate Member of CIEEM who 'Capable' in is carrying out ecological assessments and desk studies of this type.
- 2.2.3. The findings of the desk study are present in Section 3.2 for designated sites and habitats, and Section 3.4 for species, and are shown on **Figure 2**.

**Table 2-1 - Desk Study Data Sources**

| Source                                                                             | Record Type                                                                                                                                                                                                                                                                                                    | Search Area |
|------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Merseyside Biobank                                                                 | Protected and Priority Species                                                                                                                                                                                                                                                                                 | 2km         |
| Merseyside Biobank                                                                 | Bat species                                                                                                                                                                                                                                                                                                    | 2km         |
| Merseyside Biobank                                                                 | Non-statutory site <sup>3</sup>                                                                                                                                                                                                                                                                                | 1km         |
| Natural England                                                                    | Statutory sites designated under national legislation i.e. Local Nature Reserves (LNR), National Nature Reserves (NNR), Sites of Special Scientific Interest (SSSI)                                                                                                                                            | 2km         |
| Natural England                                                                    | Statutory sites designated at the international level (also including sites classified under international conventions): National Site Network sites: Special Protection Area (SPA), Special Area of Conservation (SAC), potential SPA (pSPA) and candidate SAC (cSAC); and Ramsar and potential Ramsar sites. | 10km        |
| Natural England                                                                    | International statutory sites (SAC) designated for bats                                                                                                                                                                                                                                                        | 30km        |
| Natural England Priority Habitat Inventory <sup>4</sup>                            | Habitats of Principal Importance (HPI) <sup>5</sup>                                                                                                                                                                                                                                                            | 500m        |
| Natural England Wood-Pasture & Parkland BAP Priority Habitat dataset (provisional) | Wood-Pasture & Parkland HPI                                                                                                                                                                                                                                                                                    | 500m        |
| Natural England Open Mosaic Habitat (OMH) dataset (draft)                          | OMH HPI                                                                                                                                                                                                                                                                                                        | 500m        |

<sup>3</sup> An area without protection by the law, designated at a local level and protected by local and national policy (as defined in BSI (2013) Biodiversity Code of Practice BS42020).

<sup>4</sup> Inventories of UKBAP habitats which mostly align with Habitats of Principal Importance.

<sup>5</sup> Habitats listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, that are of principal importance for the conservation of biodiversity in England.

| Source                                                  | Record Type                                                  | Search Area |
|---------------------------------------------------------|--------------------------------------------------------------|-------------|
| Natural England Ancient Woodland Inventory <sup>6</sup> | Semi-natural ancient woodland and ancient replanted woodland | 1km         |
| Woodland Trust Ancient Tree Inventory <sup>7</sup>      | Ancient, veteran, and notable trees                          | 250m        |
| Ordnance Survey Mapping 1:10,000, accessed 4 June 2024  | Waterbodies and watercourses and their direction of flow     | 500m        |
| Protected Species Licencing                             | MAGIC                                                        | 2km         |

\*Search radius from National Grid Reference SJ 44815 84283 (see **Figure 1**).

## 2.3 Habitat survey

- 2.3.1. A UK Habitat survey was undertaken of the Survey Area, as shown on the habitat plan (**Figure 3**). The survey was carried out on 11 June 2024. The weather during the survey was overcast with occasional light rain, conditions prior to the survey were particularly wet for the season. The habitat survey was carried out by a Consultant Ecologist and a Seasonal Ecologist, both with experience of completing PEAs of similar sites, and who are members of CIEEM.
- 2.3.2. Habitats were described and mapped following the standard UK Habitat classification methodology (Butcher *et al.*, 2020 and UKHab Ltd, 2023). Where appropriate, consideration was given to whether habitats qualify or could qualify as a 'Habitat of Principal Importance' (HPI) following habitat descriptions published by BRIG (JNCC, 2011) and The UK Habitat Classification Habitat Definitions Version 2.0 (UKHab Ltd, 2023), and whether they could classify as irreplaceable habitats, following the National Planning Policy Framework (NPPF) (Ministry of Housing Communities & Local Government, 2023) definition<sup>8</sup>.

<sup>6</sup> The Ancient Woodland Inventory in England lists areas over two hectares in size which have been continuously wooded since at least 1600.

<sup>7</sup> Map of ancient, veteran, and notable trees; accessed: <https://ati.woodlandtrust.org.uk/>

<sup>8</sup> Irreplaceable habitats are defined in the NPPF as habitats which would be technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, taking into account their age, uniqueness, species diversity or rarity, including ancient woodland, ancient and veteran trees, blanket bog, limestone pavement, sand dunes, salt marsh and lowland fen.

- 2.3.3. A list of plant species was compiled by habitat type or by habitat parcel where different areas of the same habitat had significantly different species compositions, showing all species recorded in order to describe and classify the habitat type and show dominant and notable species (**Appendix C**). Relative plant species abundances were estimated using the DAFOR scale<sup>9</sup>. The scientific names for plant species follow those in the New Flora of the British Isles (Stace, 2019) and are also included in **Appendix C**.
- 2.3.4. Habitats were recorded on a mobile mapping Geographical Information System (GIS) software. The smallest area to be mapped was 0.025 ha (5 m x 5 m), which was selected as a suitable scale to sample the limited range of different vegetation types present.
- 2.3.5. Target notes were made to provide information on specific features of ecological interest (e.g. a badger *Meles meles* sett or invasive species). These are included in **Appendix D**.

## 2.4 Daytime Bat Walkover

- 2.4.1. A DBW was undertaken on trees within the Survey Area (where accessible).
- 2.4.2. A visual inspection of trees from the ground, using binoculars and a high-powered torch, was completed to search for PRFs that may provide roosting opportunities for bats.
- 2.4.3. Trees were initially categorised in line with good practice guidelines (Collins, 2023) on their potential to contain PRFs as detailed in **Table 2-2**.

**Table 2-2 - Guidelines for Assessing Tree Suitability.**

| Suitability | Description                                                                    |
|-------------|--------------------------------------------------------------------------------|
| NONE        | Either no PRFs in the tree, or highly unlikely to be any                       |
| FAR         | Further Assessment Required (FAR) to establish if PRFs are present in the tree |
| PRF         | A tree with at least one PRF present                                           |

- 2.4.4. During the DBW, the Survey Area was assessed for its suitability to provide potential flightpaths and foraging habitat and was assigned a suitability category based on Table 2-3 below, in line with good practice guidelines (Collins, 2023).

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<sup>9</sup> The DAFOR scale has been used to estimate the frequency and cover of the different plant species as follows:  
 Dominant (D) - >75% cover, Abundant (A) – 51-75% cover, Frequent (F) – 26-50% cover, Occasional (O) – 11-25% cover, Rare (R) – 1-10% cover., The term 'Locally' (L) is also used where the frequency and distribution of a species are patchy and 'Edge' (E) is also used where a species only occurs on the edge of a habitat type.

**Table 2-3 - Categorisation of Habitat Suitability**

| Category   | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
|------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| High       | <p>Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flightpaths such as river valleys, streams, hedgerows, lines of trees and woodland edge.</p> <p>High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses, and grazed parkland.</p> <p>Site is close to and connected to known roosts.</p> |
| Moderate   | <p>Continuous habitat connected to the wider landscape that could be used by bats for flightpaths such as lines of trees and scrub or linked back gardens.</p> <p>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland, or water.</p>                                                                                                                                                                                        |
| Low        | <p>Habitat that could be used by small numbers of bats as flightpaths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.</p>                                                                                                                                                                                                                                                                              |
| Negligible | <p>No obvious habitat features on site likely to be used as flightpaths or by foraging bats; however, a small element of uncertainty remains to account for non-standard bat behaviour.</p>                                                                                                                                                                                                                                                                                                      |
| None       | <p>No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/ protection for flight-lines or generate/ shelter insect populations available to foraging bats).</p>                                                                                                                                                                                                                        |

## 2.5 Ground Level Tree Assessment

- 2.5.1. Where suitable features were noted during the DBW, i.e., trees categorised as either FAR or PRF, a GLTA was completed, and their location and a brief description of their character was recorded. Additionally, each feature was visually inspected for evidence indicating use by roosting bats such as droppings, urine staining, and scratch marks/characteristic staining (from fur oils).
- 2.5.2. Where possible, any PRF on trees identified during the GLTA were categorised as detailed in Table 2-4 below, in line with good practice guidelines (Collins, 2023).

**Table 2-4 - Guidelines for Categorising the Potential Suitability of PRFs**

| Suitability | Description                                                                                                                     |
|-------------|---------------------------------------------------------------------------------------------------------------------------------|
| PRF-I       | PRF is only suitable for individual bats or a small number of bats, either due to size or lack of suitable surrounding habitats |
| PRF-M       | PRF is suitable for multiple bats and may therefore be used by a maternity colony                                               |

## 2.6 Preliminary Roost Assessment – Building and Structures

- 2.6.1. Alongside the DBW and GLTA, a Preliminary Roost Assessment of buildings and structures within the Survey Area was carried out.
- 2.6.2. A systematic visual inspection of the exterior of buildings using binoculars was completed to search for features that bats could use for entry/exit and roosting. Where suitable features were noted, their location and a brief description of their character was recorded. Additionally, each feature was visually inspected for evidence indicating use by roosting bats such as droppings, urine staining, and scratch marks/characteristic staining (from fur oils).
- 2.6.3. Buildings and structures were categorised in line with the descriptions in Table 2-5. Based on the features present and the location of the structure, the potential for different types of bat roost was also considered.

**Table 2-5 - Categorisation of Potential Roost Suitability in Buildings and Structures**

| Category | Description                                                                                                                                                                                                                                 |
|----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| High     | A structure with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions, and |

|            |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|            | surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation sites.                                                                                                                                                                                                                                                                                                                                   |
| Moderate   | A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions, and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only, such as maternity and hibernation – the categorisation described in this table is made irrespective of the species conservation status, which is established after presence is confirmed).                                              |
| Low        | A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity and not a classic cool/stable hibernation site, but could be used by individual hibernating bats). |
| Negligible | Structure displaying no obvious features likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.                                                                                                                                                                                                                                                                                              |
| None       | Structure with no features likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).                                                                                                                                                                                                                                                                                                              |

## 2.7 Protected and Priority Species Assessment

- 2.7.1. The potential for presence of legally protected and Priority Species (as defined in Section 1.2) in the Survey Area was assessed using the desk study results, habitat survey results, and incidental field observations from the habitat survey. The assessment of habitat suitability for protected and priority species was based on professional experience and judgement. This was supplemented by standard sources of guidance on habitat suitability assessment for key faunal groups (CIEEM, 2021b).

## 2.8 Notes and Limitations

- 2.8.1. Every effort has been made to provide a comprehensive description of the Survey Area; however, the following specific limitations apply to this assessment:
- Ecological survey data is typically valid for 18 months unless otherwise specified, for example if conditions are likely to change more quickly due to ecological processes, mobile species, or anticipated changes in management (CIEEM, 2019).
  - Records held by local biological record centres and local recording groups are generally collected on a voluntary basis; therefore, the absence of records does not demonstrate the absence of species, it may simply indicate a gap in recording coverage.
  - The habitat survey was carried out over the period of a single day, as such only a selection of all species that occur within the Survey Area will have been recorded. However, through use of desk study information to supplement site survey data, it is considered that an accurate assessment of the potential for the Site to support protected or priority species or habitats was possible.
  - The building within the Survey Area were not subject to an internal inspection due to the unknown risk of asbestos. This may result in an over-precautionary assessment, but is unlikely to significantly alter the requirement for further surveys.
  - The habitat map (**Figure 3**) has been reproduced from field notes and plans. Whilst this provides a sufficient level of detail to fulfil the requirements of a PEA, the maps are not intended to provide exact locations of key habitats.
  - Assessment of suitability for protected and Priority Species do not confirm that a species is present or absent, unless otherwise stated, and do not exclude the possibility of other protected or Priority Species being subsequently encountered. Recommendations are made where further surveys are needed to determine the baseline or mitigation requirements.

## 3 Results

### 3.1 Site Context

- 3.1.1. A review of freely available web-based aerial photography and mapping showed that the Site is located within a large industrial plant. The industrial site is bounded by urban development in Halewood and Speke to the north and south respectively, with arable land to the east and small parcels of woodland further to the north and southeast. The Site is predominantly hardstanding due to its location within a manufacturing plant. The plant is also bordered by a major road (A561) to the south and two separate active railway lines to the north.
- 3.1.2. The Site is atypical within the wider landscape, with a large network of arable land and small woodland parcels beyond the industrial development to the East as well as urban parks within Hale and Speke residential developments.

### 3.2 Desk Study for Designated Sites and Habitats

#### Designated Sites

- 3.2.1. The designated sites identified in the desk study are shown in the tables below.
- 3.2.2. The study identified two designated site of international importance, the River Mersey Special Protection Area (SPA) and Ramsar and Liverpool Bay SPA (**Table 3-1** and **Figure 2a**). The Site is also situated within the Impact Risk Zone (IRZ) for the Mersey Estuary SSSI and SPA.

**Table 3-1 - International Statutory Designated Sites**

| Site Name / Designation      | Location and Direction* | Reason for Designation                                                                                                                                                                                                                                       |
|------------------------------|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Mersy Estuary Ramsar and SPA | 2.2km South             | Supports internationally important populations of breeding Annex 1 protected birds, namely Golden Plover <i>Pluvialis apricaria</i> .                                                                                                                        |
| Liverpool Bay SPA            | 9.7km West              | Supports internationally important populations of breeding Annex 1 protected birds, namely; Red-throated diver <i>Gavia stellata</i> , little gull <i>Hydrocoloeus minutus</i> , little tern <i>sternula albifrons</i> , common tern <i>Sterna hirundo</i> . |

- 3.2.3. The study identified one Local Nature Reserve (LNR), a statutory site of Local importance (**Table 3-2** and **Figure 2b**). No nationally designated statutory designated sites (SSSI, NNR) were identified within 2km of the Site.

**Table 3-2 - Local Statutory Designated Sites**

| Site Name / Designation      | Location and Direction* | Site / Feature Summary                  |
|------------------------------|-------------------------|-----------------------------------------|
| Mill Wood and Alder Wood LNR | 800m SE                 | A publicly accessible ancient woodland. |

- 3.2.4. A total of 3 non-statutory local sites were present in the desk study area (**Table 3-3**). Although all sites were within 2km, they were separated from the site by either trainlines or major roads, providing a barrier for most terrestrial species.

**Table 3-2 - Non-statutory Local Designated Sites**

| Site Name/ Designation                                     | Location and Direction* | Site/Feature Summary                                                                                           |
|------------------------------------------------------------|-------------------------|----------------------------------------------------------------------------------------------------------------|
| Crab Tee Rough and Hop Yard Wood Local Wildlife Site (LWS) | 900m East               | Local Wildlife Site, area of broadleaf woodland with ponds and grasslands.                                     |
| Halewood Triangle LWS                                      | 1.3km NW                | Local Wildlife Site, consisting largely of mature woodland, with ponds, meadow habitat and heathland remnants. |
| Netherly Brook and Ditton Brook Corridor LWS               | 1.3km NE                | Nature Improvement Area within Mersey Estuary.                                                                 |

\*Approximate location relative to Site centre, OS grid reference SJ 44815 84283.

## Protected and Priority Habitat Records

- 3.2.5. **Table 3-4** shows any irreplaceable habitats<sup>10</sup> and HPI records from inventories within the study area, and the distance of these from the site (Figure 4).

**Table 3-3 - Protected and Priority Habitat Records**

| Habitat          | No. of Parcels/Area | Closest Area |
|------------------|---------------------|--------------|
| Ancient woodland | 1                   | 800m SE      |

- 3.2.6. Aerial photography and OS mapping were checked for ponds and watercourses and showed a waterbody within the Mill Wood and Alder Wood LNR Ancient woodland that begins 1km SE of the site and flows east into the River Mersey.

<sup>10</sup> Irreplaceable habitats are defined in the NPPF (Ministry of Housing Communities & Local Government, 2023) as those which would be technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, taking into account their age, uniqueness, species diversity or rarity. They include ancient woodland, ancient and veteran trees, blanket bog, limestone pavement, sand dunes, salt marsh and lowland fen.

### 3.3 Habitat Survey

- 3.3.1. The habitat types that were identified in the Survey Area are shown on Figure 3 and are listed and described in **Table 3-5**. A description of the dominant and notable species, and the composition and management of each habitat is provided below including species present and scientific names. Photographs are provided in **Appendix C**. Alpha-numeric codes used in this section cross-refer to the habitat classification, and the order of the habitat descriptions below reflects their ordering in the habitat manual and does not reflect habitat importance.
- 3.3.2. The Site mostly comprised buildings and areas of developed land, sealed surface in the form of car or trailer parks and roads. A small area of scattered unmown, modified grassland was present within the Survey Area.

**Table 3-4 - Habitat Areas**

| Habitat                                                       | Area (ha)/<br>Length (m)* | Condition | Summary Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | HPI | Irreplaceable |
|---------------------------------------------------------------|---------------------------|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|---------------|
| G4 Modified grassland (80 Unmanaged, 32 – Scattered trees)    | 0.08                      | Good      | <p>Unmanaged amenity grassland with trees. Abundant annual meadow-grass <i>Poa annua</i> and perennial rye-grass <i>Lolium perenne</i>. Species indicative of suboptimal condition were also present regularly, creeping buttercup <i>Ranunculus repens</i>, white clover <i>Trifolium repens</i>, and creeping thistle <i>Cirsium arvense</i>. Ribwort plantain <i>Plantago lanceolata</i>, common sorrel <i>Rumex acetosa</i> and daisy <i>Bellis perennis</i> were also present.</p> <p>Trees present are juvenile field maple <i>Acer campestre</i> and silver birch <i>Betula pendula</i> with a semi-mature white poplar <i>Populus alba</i>.</p> | No  | No            |
| U1b5 Buildings (96 Industrial building)                       | 0.29                      | N/A       | <p>Four industrial buildings present within the Survey Area; B1-the central building within the RLB to be demolished, B2-a small building adjacent to B1, B3-a disused fire station on the edge of the Survey Area and B4 a newly built metal storage tent.</p> <p>One brick building was classified as High suitability for bats and two brick buildings were classed as Moderate suitability (further information below).</p>                                                                                                                                                                                                                         | No  | No            |
| U1b Developed land and sealed surface (89 Car park, 111 Road) | 0.88                      | N/A       | Network of roads, walkways, trailer park and car park, all industrial use with no other vegetation present.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | No  | No            |



| Habitat            | Area (ha)/<br>Length (m)* | Condition | Summary Description | HPI | Irreplaceable |
|--------------------|---------------------------|-----------|---------------------|-----|---------------|
| TOTAL AREA<br>(ha) | 1.26                      |           |                     |     |               |

## 3.4 Protected and Priority Species Assessment

### Desk Study

- 3.4.1. Records of protected or Priority Species relevant to the locality of the Site from the last 10 years, are summarised in **Table 3-6**. Records for the following species/species groups are not included below because these species are considered unlikely to use the Site or surroundings: aquatic species (otter, water vole, amphibians, and fish) as there are no waterbodies within the Survey Area or within 500m, plants as there is only one small area of amenity grassland present within the Survey Area and immediate area surrounding it.

**Table 3-6 - Protected and Priority Species**

| Species/Species Group                                                                                                                           | No. Records | Most Recent | Closest Record |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------------|-------------|----------------|
| Bats:<br>Brown long-eared bat <i>Plecotus auritus</i><br>Common pipistrelle <i>Pipistrellus pipistrellus</i><br>Noctule <i>Nyctalus noctula</i> | 10          | 2019        | 900m East      |
| Other Priority Species:<br>European hedgehog <i>Erinaceus europaeus</i><br>Brown hare <i>Lepus europaeus</i>                                    | 72          | 2022        | 850m East      |
| Birds (Schedule 1 on Wildlife and Countryside Act, 1981 (as amended))                                                                           |             |             |                |
| Kingfisher <i>Alcedo atthis</i>                                                                                                                 | 1           | 2014        | 1.6km North    |
| Invertebrates<br>12 <i>Odonata</i> sp.<br>3 <i>Coleoptera</i> sp.                                                                               | 87          | 2022        | 800m SE        |

### Suitability Assessment

- 3.4.2. The potential for the Site and surrounding habitat to support legally protected and/or Priority Species is discussed for each species/species group below.

#### Bats

- 3.4.3. The data search returned records of three bat species, common pipistrelle, noctule and a *Myotis* species, in the area surrounding the Survey Area. This included a brown long-eared bat roost in woodland 900m east from the Survey Area.

- 3.4.4. There was little suitable commuting or foraging habitats for bats within the Survey Area. However, suitable commuting, foraging and possible roosting habitat is present in the form of the woodland to the east of the Survey Area. Overall, while there was some suitable habitat present, it was not considered to be continuous or well connected to the wider landscape and therefore the habitat within the Survey Area was considered to be of low suitability for foraging and commuting bats. However, due to the proximity of potentially high suitability habitat, the impact of the Proposed Development on bats must be considered.
- 3.4.5. All trees and buildings within the Survey Area were assessed for bat roosting suitability, the results of which are provided in Section 3.5.

### **Badger**

- 3.4.6. No records of badger activity, field signs or setts were returned in the data search. There were no signs of badgers within the Survey Area and the surrounding habitat is of low suitability due to the extensive hardstanding and industrial activity. Due to both factors, badgers are not considered further in this PEA.

### **Other mammals**

- 3.4.7. The data search returned results for both European hedgehog and brown hare. However, neither were within the Survey Area nor surrounding industrial area. There were no signs of mammal activity within the Survey Area and the surrounding habitat is of low suitability due to the extensive hardstanding and industrial activity. Due to these factors, neither species are considered further in this PEA.

### **Birds**

- 3.4.8. The only bird record returned from the data search was of a single kingfisher over 1km from the Survey Area. No suitable nesting habitats for birds was present and as such nesting birds are not considered further in this PEA.

### **Reptiles**

- 3.4.9. There were no records of reptiles returned in the data search. This combined with the lack of suitable habitat within the Survey Area results in reptiles are not being considered further in this PEA.

### **Invertebrates**

- 3.4.10. Eighty seven records were returned for invertebrates, consisting of 15 species. Thirteen of these species were semi-aquatic, including 12 dragonflies or damselflies (*Odonata*) and one water beetle. The remaining species were an alder leaf beetle and a weevil species, there is no suitable habitat within the survey area for either species. As there are no aquatic or other suitable habitats within the Survey Area, these species are not considered further in this PEA.

## Invasive Non-native Animal Species

- 3.4.11. The data search returned 11 records of Eastern grey squirrel *Sciurus carolinensis*, a widespread invasive species. However, there was a lack of suitable habitat within the Survey Area and grey squirrels are not considered further in this PEA.

## 3.5 Ground Level Tree Assessment and Preliminary Roost Assessment – Buildings and Structures

### GLTA

- 3.5.1. The semi-mature white poplar tree within the g4 modified grassland was classified as None, due to the absence of PRFs on the tree and the absence of any connecting habitats.

### PRA – Buildings and Structures

- 3.5.2. Four buildings were identified within the Survey Area and assessed for bat roosting suitability in line with BCT's Good Practice Guidelines (Collins, 2023). A summary of the PRA results is shown below in Table 3-7, with a detailed table of results in Appendix F, along with photographs and descriptions of the buildings. Results are displayed in Figure 4.

**Table 3-5 - Results of PRA**

| Overall Suitability | Building Reference |
|---------------------|--------------------|
| High                | B3                 |
| Moderate            | B1, B2             |
| Low                 |                    |
| Negligible          | B4                 |

## 4 Key Ecological Considerations, Opportunities and Recommendations

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- 4.1.1. This section first presents the key ecological considerations relevant to the Proposed Development, as drawn from the results section, and the implications they may have for the scheme. The recommendations sub-section then sets out measures to avoid any identified features where possible. Where avoidance is not possible and/or further surveys or detailed assessment of potential effects are required to determine the biodiversity value of the site and/or appropriate mitigation measures, these are identified next. The following two sections outline preliminary mitigation and compensation measures that may be needed, where known. The final sub-section identifies requirements and opportunities for enhancement beyond the mitigation and compensation measures required to address ecological effects.

### 4.2 Key Ecological Considerations

- 4.2.1. Bats are key considerations in relation to the Proposed Development.
- 4.2.2. The sections below discuss each ecological feature recorded as part of the desk study or field survey in relation to the Proposed Development.

#### Designated Sites

- 4.2.3. No nationally designated sites were identified within 2km of the Site; however, the Site is within the IRZ for Mersey Estuary SSSI. SSSIs are subject to strict protection under the Wildlife and Countryside Act 1981 (as amended) (**Appendix A**). The categories outlined by the IRZ that require consultation with Local Planning Authorities include aviation proposals, any industrial/agricultural development that could cause air pollution and general combustion processes. The Proposed Development is not anticipated to fall into any of these categories and therefore is not expected to affect the SSSI. Therefore, no further consultation will be required in relation to designated sites.
- 4.2.4. One LNR was identified within 2km of the Site, Mill Wood, and Alder Wood, 900 metres away. These woods include a large area of ancient woodland.
- 4.2.5. The Proposed Development is expected to be limited to the Site boundary only and due to the scale, localised nature, and distance of the Proposed Development from the LNR and non-statutory designated sites, no effects are anticipated.
- 4.2.6. None of the other designated sites identified in Section 3.2 of this PEA, form a key consideration relevant to development due to distance from the Site and lack of connectivity or potential effect pathways.

## Habitats

- 4.2.7. The majority of habitats within the Survey Area were of low ecological value, comprising species-poor grassland, hardstanding, and buildings. There are no Priority Habitats within the Survey Area and as such there are no specific considerations with regards to habitats for the Proposed Development. Whilst there is a parcel of ancient woodland within 1km of the site, due to the scale and localised nature of the Proposed Development, there is a lack of connectivity or potential effect pathways.

## Protected and Priority Species

- 4.2.8. The results of the desk study, habitat survey and protected species assessment highlighted the potential presence of several protected or Priority Species within the Survey Area, or within the immediate surroundings of the Survey Area. These species form key considerations for the Proposed Development. The legal protection afforded to these species is described in **Appendix A**.

### Bats

- There is potential for bat roosts to be present in three buildings within the Survey Area. (Two moderate suitability, one high suitability).
- Bats are protected under the Habitats Regulations 2017 (as amended) and the Wildlife and Countryside Act 1981 (as amended). Certain species of bats, including the Bechstein's bat *Myotis bechsteinii*, greater *Rhinolophus ferrumequinum* and lesser horseshoe bats *Rhinolophus hipposideros*, noctule bat, brown long eared bat, and soprano pipistrelle bat *Pipistrellus pygmaeus* are also listed as Species of Principal Importance (SPI)/Priority Species. See **Appendix A** for a summary of the legislation.
- The Proposed Development could result in a loss of bat roosts, if present, in Building 1 which is to be demolished. Current designs show retention of buildings which may have potential to support bat roosts, however depending on construction location and methods any retained roosts could be damaged or disturbed during works.
- Therefore, bats are a key consideration for the Proposed Development and recommendations are made below with respect to these species.

## 4.3 Recommendations

- 4.3.1. Recommendations are provided where relevant under the following three sub-sections.
- Additional surveys, assessment, and consultation;
  - Avoidance; and
  - Mitigation and compensation.

## Additional surveys, assessment, and consultation

### Bats

- 4.3.2. It is recommended that further surveys for bats are undertaken on the buildings identified as having bat roosting suitability. The survey requirements are outlined below in Table 4-1.
- 4.3.3. The further surveys would comprise of up to three dusk emergence surveys depending on suitability with a minimum of three weeks between visits.

**Table 4-1 - Further Bat Survey Requirements**

| Building Reference                    | Suitability | Number of Surveys Required | Number of Surveyors |
|---------------------------------------|-------------|----------------------------|---------------------|
| B1 (Building to be demolished)        | Moderate    | 2                          | 4                   |
| B2 (Small outbuilding adjacent to B1) | Moderate    | 2                          | 2                   |
| B3 (Disused fire station)             | High        | 3                          | 4                   |

- 4.3.4. Further surveys have been undertaken and the results of which are to be detailed in a separate bat survey report.

### Avoidance

- 4.3.5. If bat roosts are found in the building to be demolished, B1, in the further surveys, the Proposed Development will not be able to continue legally without a licence from Natural England.

### Mitigation and Compensation

- 4.3.6. General environmental protection measures should be implemented during the construction phase of the proposed scheme. Such measures include those that are outlined on the guidance pages on the government website<sup>11</sup>, and those in the Construction Industry Research and Information Association (CIRIA) environmental good practice on site guide (Kwan et al., 2023). The following general measures are recommended to prevent ecological impacts:
- A Construction Environmental Management Plan should be prepared prior to the start of construction, and followed throughout the duration of construction works to ensure the required mitigation measures are implemented;
  - Measures must be taken to prevent dust, wind blown debris and other emissions from construction affecting land beyond the Site;

<sup>11</sup> For example, Pollution Prevention for Businesses [accessed <https://www.gov.uk/guidance/pollution-prevention-for-businesses>]

- Chemicals and fuels must be stored in secure containers, and located away from drains. Spill kits must be available;
- Excavations must be covered or securely fenced (with no potential access points beneath fencing) when the Site is closed (e.g. overnight), or ramps included, to prevent entrapment of animals;
- Biosecurity measures should be in place;
- Noise and vibration must be controlled and kept to the minimum necessary; and
- Lighting used for construction must be switched-off when not in use and positioned so as not to spill on to adjacent land or retained vegetation within the Site.

4.3.7. The following specific measures are also likely to be required depending on findings of further surveys:

- If any loss or damage of bat roosts or disturbance to bats cannot be avoided, this will require a licence from Natural England. Details of mitigation, compensation and working methods would be detailed within the agreed licence with Natural England, however they may include:
  - Provision of alternative compensatory roosting opportunities, through the erection of bat boxes;
  - Methods for destruction / disturbance of any identified roosts, including pre-construction inspection and ecological supervision carried out by a licenced ecologist; and
  - Any future maintenance and monitoring of replacement roosts, if required. Monitoring can include visual inspections and / or dusk emergence surveys.

## 4.4 Opportunities for Enhancement

4.4.1. The national and local policy relating to enhancements to improve biodiversity is set out in **Appendix A**.

4.4.2. Recommended enhancement opportunities which could be taken to increase the biodiversity value of the Proposed Development include the following:

- Should any habitats be retained on Site, they could be enhanced in the form of planting native plant species, as opposed to ornamental, non-native species;
- There is the opportunity to increase the value of the site for biodiversity by creating new native habitats and maintaining them in the long term for conservation;
- Future management of areas of grassland could include factors such as less frequent mowing and planting with wildflowers;
- The provision of bat and bird boxes on suitable retained buildings and/or trees to enhance landscape opportunities for these species. The installation of bat boxes should include boxes facing different aspects, to provide a range of temperature conditions with an ecologist engaged to ensure that positions are suitable;



- Ecological enhancements will also deliver other green infrastructure benefits such as storm water attenuation, carbon sequestration and enhancing climate resilience for example through reducing the urban heat island effect; and
- Sensitive/low UV lighting to reduce impact on bats if found to be present.

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## 6 Figures

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Figure 1 - Site Location Plan

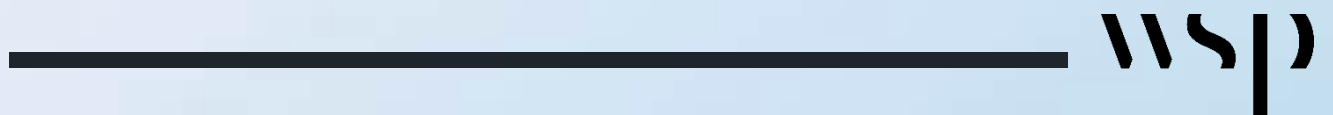
Figure 2 - Designated Sites

Figure 3 - Habitat Survey

Figure 4 - PRA Results

# Appendix A

## Legislation and National Policy



## Legislation and National Policy Context

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This appendix provides an overview and context of the below legislation and national policy and guidance, as applies in England.

Legislation:

- The Wildlife and Countryside Act 1981 (as amended) (the “WCA”);
- The Conservation of Habitats and Species Regulations 2017 (as amended) (the “Habitats Regulations”);
- Environment Act 2021;
- The Natural Environment and Rural Communities (NERC) Act 2006 (as amended);
- The Protection of Badgers Act 1992;

National policy and guidance:

- The National Planning Policy Framework (NPPF) 2023;
- National planning policy guidance;
- Environmental Improvement Plan 2023;
- UK Post-2010 Biodiversity Framework (2011-2020); and
- UK Biodiversity Action Plans.

### **The Wildlife and Countryside Act 1981, (as amended) (WCA)**

The Wildlife and Countryside Act 1981 (as amended; hereafter referred to as the ‘WCA’) is the principal mechanism for the legislative protection of wildlife in Great Britain. This legislation is the means by which the Bern Convention and (partially) the European Union Directives on the Conservation of Wild Birds (79/409/EEC) and Habitats Directive are implemented in the UK. The WCA includes provisions, amongst others, for the identification and designation of protected species; for the safeguarding and designation of Sites of Special Scientific Interest (hereafter referred to as SSSI); and for the designation of invasive non-native species and measures to control the spread of these.

Protected birds, animals and plants are listed under Schedules 1, 5, 8 respectively of the WCA. Schedule 9 lists non-native invasive species. A description of these Schedules and their meaning is provided below. Activities that would otherwise constitute an offence under this legislation may be licensed under certain circumstances by Defra or Natural England.

#### Birds

Under the WCA all birds, their nests, and eggs (with exception of species listed under Schedule 2) are protected. It is an offence to:

- Intentionally kill, injure, or take any wild bird;

- Take or destroy an egg of any wild bird; and
- Damage or destroy the nest of any wild bird (whilst being built, or in use).

Birds listed under Schedule 1 of the WCA<sup>12</sup> are afforded additional protection with regard to intentional or reckless disturbance whilst nest-building, or at a nest containing eggs or young, or disturb the dependent young of such a bird.

### Protected animals

Species listed in Schedule 5 can either be fully protected or partially protected under Section 9, which makes it unlawful to intentionally or recklessly:

- Part 1: kill, injure, or take;
- Part 2: possess or control (live or dead animal, part, or derivative);
- Part 4 (a): damage or destruct any structure used for shelter or protection;
- Part 4 (b): disturb them in a place of shelter or protection;
- Part 4 (c): obstruct access to place of shelter or protection;
- Part 5 (a): sell, offer for sale, possess, or transport for the purpose of sale (live or dead animal, part, or derivative); and
- Part 5 (b): advertise for buying or selling.

The Environment Act 2021 enables licences to be granted under section 16 of the WCA for reasons of over-riding public interest where there is no other satisfactory solution, and the grant of the licence is not detrimental to the survival of any population of the plant or animal species to which the licence relates. In addition, the Environment Act 2021 has amended section 10 of the WCA such that where a European Protected Species (ESP) licence is obtained under the Habitats Regulations and fully complied with, the above offences under the WCA no longer apply for that species.

### Protected plants

The Act makes it an offence (subject to exceptions) to pick, uproot, trade in, or possess (for the purposes of trade) any wild plant listed in Schedule 8, and prohibits the unauthorised intentional uprooting of such plants.

### Invasive species

Invasive animal species listed under Schedule 9 are prohibited from release into the wild under Section 14 of the WCA, and the Act prohibits planting or “causing to grow” in the wild of any plant species listed in Schedule 9. It should be noted that certain bird species listed on Schedule 1 of the WCA are also listed on Schedule 9 to prevent release of non-native and captive individuals, this includes barn owl, red kite, goshawk, and corncrake.

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<sup>12</sup> To view the current list of Schedule 1 listed birds, visit: <http://www.legislation.gov.uk/ukpga/1981/69/schedule/1>

### SSSIs

SSSIs are subject to strict protection under the Wildlife and Countryside Act 1981 (as amended). Certain operations within SSSIs or affecting SSSIs require approval (known as assent); these are specific to each SSSI.

### **Conservation of Habitats and Species Regulations 2017 (Habitat Regulations)**

The Conservation of Habitats and Species Regulations 2017 (as amended) consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. They also transpose elements of the EU Wild Birds Directive in England and Wales.

### European Protected Species (EPS)

All species listed under Annex IV of the Habitats Directive require strict protection and are known as European Protected Species (EPS). Under Regulation 43 of the Habitats Regulations, it is an offence to:

- Deliberately capture, injure, or kill any wild animal of an EPS;
- Deliberately disturb wild animals of any such species\*;
- In particular any disturbance which is likely to a) impair their ability to survive, breed, reproduce, rear, or nurture their young, hibernate or migrate, or b) affect significantly the local distribution or abundance of the species to which they belong;
- Deliberately take or destroy the eggs of such an animal; and
- Damage or destroy a breeding site or resting place of such an animal.

It is also an offence to be in possession of or to control, transport, sell or exchange, or offer for sale or exchange, any live or dead animal or part of an animal of an EPS which has been taken from the wild, or anything derived from such an animal or any part of such an animal.

If the ecologist determines that impacts to an EPS are unavoidable then the works may need to be carried out under a site specific mitigation licence from Natural England (NE). Activities that would otherwise constitute an offence under this legislation may be licensed by Natural England for certain purposes. Low Impact Class licences are also available for bats and great crested newts, enabling Registered Low Impact Consultants to undertake certain low impact activities reducing the EPS application paperwork and process length. District licencing is also available for great crested newts.

## National Site Network

Certain EPS are also listed under Annex II of the Habitats Directive and are designated and afforded protection under the Habitats Regulations by the establishment of core areas of habitat known as Special Areas of Conservation. This means these species are a relevant consideration in a Habitats Regulations Assessment (HRA). The Birds Directive seeks to maintain populations of all wild bird species across their natural range (Article 2). All bird species listed under Annex I<sup>13</sup> of the Birds Directive are rare or vulnerable and afforded protection by the classification of Special Protection Areas (SPAs), these are also designated under all regularly occurring migratory species, with regard to the protection of wetlands of international importance (Article 4). This means these bird species and communities are a relevant consideration in HRA.

The Habitats Regulations require projects or plans to be screened by the competent authority (usually the Local Planning Authority) for likely significant effects upon SPA, SAC, and candidate SACs (cSACs). Guidance and policy also requires potential SPAs (pSPAs) and Ramsar sites be subject to the same assessment. If the competent authority is unable to conclude that significant effects are not likely, the Proposed Development must be subject to Appropriate Assessment in accordance with the Habitats Regulations.

## **Environment Act 2021**

The Environment Act legislates enhancing the environment through measures and targets for improving air quality and waste management, increase recycling, restoring habitats and preventing species decline. This includes a new legally binding target on increasing abundance of British species by 2030, makes a requirement for Local Nature Recovery Strategies, and updates the NERC Act 2006 (see below). The Act also sets out the requirement for the Secretary of State to prepare an Environmental Improvement Plan and sets out a framework for mandatory Biodiversity Net Gain in England.

Section 98 of the Environment Act specifies that measures outlined in Schedule 14 of the Environment Act, to make provision for biodiversity gain to be a condition of planning permission in England, are to apply. Schedule 14 specifies that biodiversity gains are to be assessed using the metric published by the SoS and that a 10% gain will be mandatory. The Act requires that gains must be secured for a minimum of 30 years post completion of development. This is implemented through the insertion of Schedule 7A into the Town and Country Planning Act 1990, which provides the statutory framework. The Act includes this requirement for Nationally Significant Infrastructure Projects (NSIPs), being secured under Section 99 and Schedule 15 of the Planning Act 2008. It is expected that the mandatory requirement for a 10% gain for NSIPs will come into force in November 2025.

As a result, under the Town and Country Planning Act 1990, every grant of planning permission is deemed to have been granted subject to the pre-commencement condition

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<sup>13</sup> To view birds listed under Annex I visit:

[http://ec.europa.eu/environment/nature/conservation/wildbirds/threatened/index\\_en.htm](http://ec.europa.eu/environment/nature/conservation/wildbirds/threatened/index_en.htm)

that the biodiversity gain objective is met ('the biodiversity gain condition'). The biodiversity gain objective is for development to deliver at least a 10% increase in biodiversity value relative to the pre-development biodiversity value of the onsite habitat. Secondary legislation includes a number of biodiversity net gain regulations which provide the detail around implementing mandatory BNG, including provisions around irreplaceable habitats, and amendments which set out the requirements of the Biodiversity Gain Hierarchy. It also sets out exemptions for categories of development to which biodiversity net gain does not apply, as follows:

- Householder development. Development which is subject of a householder application as defined within Article 2(1) of the Town and Country Planning (Development Management Procedure) (England) Order 2015.
- Development granted planning permission by a development order under section 59. This includes permitted development rights.
- Development subject to the de minimis exemption. Development that does not impact a priority habitat and impacts less than 25 square metres of onsite habitat, and 5 metres of linear habitats such as hedgerows.
- Self-build and custom build development. Development which: consists of no more than 9 dwellings and is carried out on a site which has an area no larger than 0.5 hectares, and consists exclusively of dwellings which are self-build or custom housebuilding as defined in section 1(A1) of the Self-build and Custom Housebuilding Act 2015.
- Urgent Crown development granted permission under section 293A of the Town and Country Planning Act 1990.
- Development of a biodiversity gain site. Development which is undertaken solely or mainly for the purpose of fulfilling, in whole or in part, the biodiversity gain condition which applies in relation to another development.
- Development related to the high speed railway transport network. Development forming part of, or ancillary to, the high speed railway transport network comprising connections between all or any of the places or parts of the transport network specified in section 1(2) of the High Speed Rail (Preparation) Act 2013.

## **Natural Environment and Rural Communities (NERC) Act 2006 (as amended)**

The Natural Environment and Rural Communities Act (NERC Act) provides that any public body or statutory undertaker in England must have regard to the purpose of conservation of biological diversity in the exercise of their functions. The intention is to help ensure that biodiversity becomes an integral consideration in the development of policies and plans.

The Environment Act 2021 makes changes to the NERC Act which updates the general duty to conserve biodiversity by adding a duty to not only conserve but also enhance biodiversity. Public authorities are also expected to produce reports on the action they have taken under this duty when designated by the Secretary of State. Under Section 40 of this legislation, every public body (including planning authorities) must further the general biodiversity objective, which is described as ‘the conservation and enhancement of biodiversity in England through the exercise of functions in relation to England’.

Section 41 of the NERC Act requires the Secretary of State (SoS) to “publish a list of the living organisms and types of habitat which in the Secretary of State's opinion are of principal importance for the purpose of conserving biodiversity”. These are referred to as Habitats/Species of Principal Importance. The habitats and species listed in accordance with Section 41 largely replicate those listed on the UK Biodiversity Action Plan (BAP) which occur in England (however there are exceptions).

### **The Protection of Badgers Act 1992**

It is an offence to wilfully take, kill, injure, possess, or ill-treat a badger. Under the Act their sets are protected against intentional or reckless interference. Set interference includes damaging or destroying a sett, obstructing access to any part of the sett, or disturbance of a badger whilst it is occupying a sett. The Act defines a badger sett as ‘any structure or place, which displays signs indicating the current use by a badger’ and Natural England (NE) takes this definition to include seasonally used setts that are not occupied but that show sign of recent use by badgers (Natural England, 2009<sup>14</sup>).

If impacts to badgers or their setts are unavoidable then authorised sett disturbance requires a licence. Activities that would otherwise constitute an offence under this legislation may be licensed by Natural England for certain purposes.

### **National Planning Policy Framework 2023**

The National Planning Policy Framework 2023 (the ‘NPPF’) sets out the Government’s planning policies for England and it contains relevant policies specific to biodiversity and nature conservation (most notably in section 15). It sets out provisions for biodiversity, including protected sites and species, for which local planning authorities (LPAs) must have regard.

The NPPF requires local authorities in England to take measures to:

- Protect and enhance sites of biodiversity;
- Recognise the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services;
- Maintain the character of the undeveloped coast;

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<sup>14</sup> Natural England, June 2009, Protection of Badgers Act 1992 (as amended), Guidance on ‘Current Use’ in the definition of a Badger Sett WMLG17, Natural England, Peterborough.

- Minimise impacts and provide net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- Prevent new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability; and
- Remediate and mitigate despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

When determining planning applications, local planning authorities should apply principles including:

- 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;
- Typically refusing development on land within or outside a Site of Special Scientific Interest that is likely to have an adverse effect on it (either individually or in combination with other developments). The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- Typically refusing development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) unless there are wholly exceptional reasons (for example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat), and a suitable compensation strategy exists. Irreplaceable habitats are defined in the glossary as: *“habitats which would be technically very difficult (or take a very significant time) to restore, recreate or replace once destroyed, taking into account their age, uniqueness, species diversity or rarity. They include ancient woodland, ancient and veteran trees, blanket bog, limestone pavement, sand dunes, salt marsh and lowland fen”*; and
- Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

Planning Practice Guidance (PPG) has been published alongside the NPPF, and is regularly updated, to provide guidance on the implementation of the planning policies. It is also a matter of government policy under the NPPF that Ramsar Sites are given the same protection as European Sites (habitats sites), and therefore should be considered in the HRA process.

## **National Planning Practice Guidance (PPG)**

Explains the processes and tools that can be used through the planning system in England. In relation to terrestrial biodiversity, guidance on Appropriate Assessment (i.e. the assessment of effects on sites designated under the Conservation of Habitats and Species Regulations 2017), BNG, and Environmental Impact Assessment are relevant, alongside the “Biodiversity, Geodiversity and Ecosystems” section of the Natural Environment guidance section. It states that a key purpose of a public authorities’ duty under the NERC Act 2006 is to embed consideration of biodiversity as an integral part of policy and decision making throughout the public sector, which should be seeking to make a significant contribution to the achievement of the commitments made by government in its 25 Year Environment Plan.

The guidance advises how to identify suitable mitigation and adaptation measures in the planning process. This would require the implementation of appropriate measures by the local planning authorities. The guidance particularly recommends development of brownfield sites over greenfield sites, implementation of green infrastructure networks in development, avoidance of effects on important ecological sites and species and use of appropriate mitigation where necessary.

The BNG PPG sets out the statutory framework for mandatory BNG.

## **Environmental Improvement Plan 2023 (Defra, 2023)**

This is the government’s first revision of its 25 Year Environment Plan. It sets out a new plan for delivering ten goals to improve the environment, with interim targets to measure progress. Part of the plan includes new National Nature Reserves, Nature Recovery Networks, implementing the Environment Act 2021 including Local Nature Recovery Strategies and Biodiversity Net Gain. The apex goal is to improve nature, with other goals to help achieve it including:

- Goal 1 - Thriving plants and wildlife
- Goal 2 - Clean air
- Goal 3 - Clean and plentiful water
- Clean 4 - Managing exposure to chemicals and pesticides
- Goal - 5 Maximise our resources, minimise our waste
- Goal 6 - Using resources from nature sustainability
- Goal 7 - Mitigating and adapting to climate change
- Goal 8 - Reduced risk of harm from environment waste
- Goal 9 – Enhancing biosecurity
- Goal 10 – Enhanced beauty, heritage, and engagement with the natural environment

## **The UK Post-2010 Biodiversity Framework (2011-2020) (JNCC and DEFRA, 2012)**

The UK Post-2010 Biodiversity Framework covers the period from 2011 to 2020 and was developed in response to two main drivers: the Convention on Biological Diversity's Strategic Plan for Biodiversity 2011-2020, and its five strategic goals; and 20 'Aichi Targets'. The Framework lists the UK's most threatened species and habitats and sets out targets and objectives for their management and recovery. The targets set in this framework are still valid, even though the period has now elapsed. The Biodiversity Framework shows how the work of the four UK countries joins up with work at a UK level to achieve the 'Aichi Targets' and the aims of the EU Biodiversity Strategy. It identifies the activities required to complement each country's biodiversity strategy, and where work in the country strategy contributes to international obligations.

### **UK Biodiversity Action Plans**

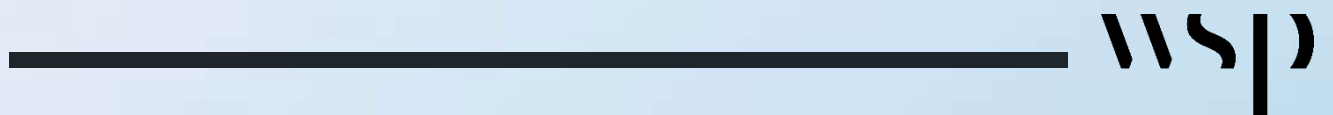
The United Kingdom Biodiversity Action Plan (UKBAP) has been replaced by the UK Post-2010 Biodiversity Framework, however, it contains useful information on how to characterise important species assemblages and habitats which is still relevant. The UKBAP, first published in 1994 and updated in 2007, is a government initiative designed to implement the requirements of the Convention of Biological Diversity to conserve and enhance species and habitats. The UKBAP contains a list of priority habitats and species of conservation concern in the UK, and outlines biodiversity initiatives designed to enhance their conservation status. The priority species generally correlate with those listed in accordance with Section 41 of the NERC Act (with some exceptions).

BAPs in the UK have no statutory status but provide a framework for implementing conservation requirements. Species listed as Priority species in the UK BAP which are also listed as Species of Principal Importance are afforded a degree of protection under the NERC Act (2006) (see above).

The national BAP is supplemented by local BAPs which identify habitats and species of particular value or concern at the local level.

# Appendix B

## Summary of Ecological Desk Study Data



## SUMMARY OF ECOLOGICAL DESK STUDY DATA

**Table B-1 - Non-Statutory Designated Sites Within 1km of the Site**

| Site Name                          | Designation         | Size (ha) | Distance and Orientation from Site | Description                                                                                               |
|------------------------------------|---------------------|-----------|------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Mill Wood and Alder Wood           | LNR                 | 17.95     | 900m southeast                     | A publicly accessible ancient woodland.                                                                   |
| Crab tree rough and Hop yard woods | Local Wildlife Site | 4         | 900m east                          | Area of broadleaved woodland with ponds and grasslands with the suitability to support protected species. |

**Table B-2 - Protected and Notable Species (Excluding Birds) for Which Records Have Been Identified Within 2km**

| Species Common Name   | Species Latin Name               | No. of Records | Distance and Orientation from Site | Legal / Conservation Status <sup>15</sup> |
|-----------------------|----------------------------------|----------------|------------------------------------|-------------------------------------------|
| Brown hare            | <i>Lepus europaeus</i>           | 2              | 850m east                          | LBAP, NERC                                |
| Brown long-eared bat  | <i>Plecotus auritus</i>          | 1              | 900m east                          | W&CA, LBAP, NERC, HabReg                  |
| Common frog           | <i>Rana temporaria</i>           | 14             | 1.3km northwest                    | W&CA                                      |
| Common pipistrelle    | <i>Pipistrellus pipistrellus</i> | 8              | 900m northeast                     | W&CA, LBAP, HabReg, NERC                  |
| Common toad           | <i>Bufo bufo</i>                 | 10             | 900m north                         | W&CA, NERC, UKBAP                         |
| Eastern grey squirrel | <i>Sciurus carolinensis</i>      | 11             | 1.3km northwest                    | W&CA                                      |

<sup>15</sup> HabReg = Conservation of Habitats and Species Regulations (2017), W&CA = Wildlife and Countryside Act (1981), NERC = Schedule 41 Natural Environment and Rural Communities Act (2006), LBAP = Local Biodiversity Action Plan, RD1 (UK) = UK Red Data Book listing based on IUCN guidelines, RD2 (UK) = UK Red Data Book listing not based on IUCN guidelines (Nationally Rare and Scarce).

| Species Common Name | Species Latin Name          | No. of Records | Distance and Orientation from Site | Legal / Conservation Status <sup>15</sup> |
|---------------------|-----------------------------|----------------|------------------------------------|-------------------------------------------|
| Noctule             | <i>Nyctalus noctula</i>     | 1              | 1.7m northwest                     | W&CA, LBAP, NERC, HabReg                  |
| Smooth newt         | <i>Lissotriton vulgaris</i> | 5              | 1.7m northwest                     | W&CA                                      |
| European hedgehog   | <i>Erinaceus europaeus</i>  | 70             | 950m north                         | NERC, RD1(UK), UKBAP                      |

**Table B-3 - Protected and Notable Birds for Which Records Have Been Identified Within 2km**

| Species Common Name | Species Latin Name   | No. of Records | Legal / Conservation Status <sup>49</sup> |
|---------------------|----------------------|----------------|-------------------------------------------|
| Kingfisher          | <i>Alcedo atthis</i> | 1              | W&CA, HabReg                              |

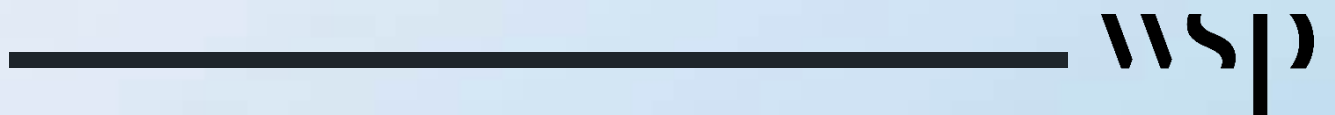
**Table B-4 - Protected and Notable Invertebrates for Which Records Have Been Identified Within 2km**

| Species Common Name       | Species Latin Name           | No. of Records | Legal / Conservation Status <sup>49</sup> |
|---------------------------|------------------------------|----------------|-------------------------------------------|
| Alder leaf beetle         | <i>Agelastica alni</i>       | 46             | RD1(UK)                                   |
| Azure damselfly           | <i>Coenagrion puella</i>     | 2              | LBAP                                      |
| Banded demoiselle         | <i>Calopteryx splendens</i>  | 1              | LBAP                                      |
| Blue-tailed damselfly     | <i>Ischnura elegans</i>      | 11             | LBAP                                      |
| Brown-bodied chaser       | <i>Libellula depressa</i>    | 4              | LBAP                                      |
| Brown hawker              | <i>Aeshna grandis</i>        | 6              | LBAP                                      |
| <i>Cercyon littoralis</i> | <i>Cercyon littoralis</i>    | 1              | RD2(UK)                                   |
| Common blue damselfly     | <i>Enallagma cyathigerum</i> | 2              | LBAP                                      |
| Common darter             | <i>Sympetrum striolatum</i>  | 1              | LBAP, RD1(UK)                             |

| Species Common Name        | Species Latin Name         | No. of Records | Legal / Conservation Status <sup>49</sup> |
|----------------------------|----------------------------|----------------|-------------------------------------------|
| Emperor dragonfly          | <i>Anax imperator</i>      | 2              | LBAP                                      |
| Large red damselfly        | <i>Pyrrhosoma nymphula</i> | 2              | LBAP                                      |
| Migrant hawk               | <i>Aeshna mixta</i>        | 1              | LBAP                                      |
| <i>Polydrusus formosus</i> | <i>Polydrusus formosus</i> | 3              | RD2(UK)                                   |
| Red-eyed damselfly         | <i>Erythromma najas</i>    | 3              | LBAP                                      |
| Southern hawk              | <i>Aeshna cyanea</i>       | 2              | LBAP                                      |

# Appendix C

## Plant Species Recorded





## Plant Species Recorded

Table C-1 - Plant Species Recorded

| Common Name                                                     | Latin Name                 | Frequency (DAFOR) |
|-----------------------------------------------------------------|----------------------------|-------------------|
| <b>g4 Modified Grassland (80-Unmanaged, 32-Scattered Trees)</b> |                            |                   |
| Annual meadow-grass                                             | <i>Poa annua</i>           | A                 |
| Perennial rye-grass                                             | <i>Lolium perenne</i>      | F                 |
| White clover                                                    | <i>Trifolium repens</i>    | F                 |
| Ribwort plantain                                                | <i>Plantago lanceolata</i> | F                 |
| Creeping buttercup                                              | <i>Ranunculus repens</i>   | F                 |
| Common sorrel                                                   | <i>Rumex acetosa</i>       | R                 |
| Creeping thistle                                                | <i>Cirsium arvense</i>     | O                 |
| Daisy                                                           | <i>Bellis perennis</i>     | R                 |
| Field maple                                                     | <i>Acer campestre</i>      | R                 |
| Silver birch                                                    | <i>Betula pendula</i>      | R                 |
| White poplar                                                    | <i>Populus alba</i>        | R                 |

# Appendix D

## Target Notes

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WSP



## Target Notes

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None Recorded

# Appendix E

## Photographs



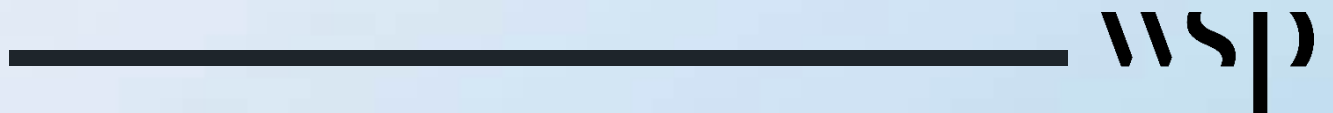
## Photographs

**Table E-1 - Indicative Photographs of Habitats Recorded Within the Survey Area**

|                                                                                       |                                                                                          |
|---------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
|      |        |
| <p>Photograph 1 – Modified grassland (g4) with scattered trees alongside the road</p> | <p>Photograph 2 – urban hardstanding (u1) network of roads, pavements and buildings.</p> |

# Appendix F

## **PRA Results – Buildings and Structures**



**Table F-1 - PRA Buildings Results**

| Building Reference | Overall Bat Roosting Suitability | Building Description                                                                                                                                                                                                                                 | PRF Description                                                                                                                                                                                                                                                                                                                             | Photograph                                                                           |
|--------------------|----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| B1                 | Moderate                         | Brick built, one storey office/storage building with corrugated metal cladding on upper half on 3 aspects. Corrugated metal flat roof can't be seen from ground. Windows on lower level. Security lights on all sides 1m above roof height every 5m. | Multiple gaps in brickwork and around ducting on north and east aspect leading into cavity wall 1.5-5 metres high and a range of sizes.<br>Gaps in brick under roofline allowing potential access under roof and/or false ceiling.<br>Gaps under metal cladding on north, south and west aspects allowing potential roosting opportunities. |   |
| B2                 | Moderate                         | Small, single-storey brick and wooden storage building. Security lighting from neighbouring B1.                                                                                                                                                      | Missing brick in gap under roof on all 4 corners of building allowing potential access into roof. Roosting potential on all 4 corners.                                                                                                                                                                                                      |  |

| Building Reference | Overall Bat Roosting Suitability | Building Description                                                                                                                                                                                     | PRF Description                                                                                                                                                                                                                                                                                                                                                                  | Photograph                                                                           |
|--------------------|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| B3                 | High                             | Disused fire station, brick built two-story building. Flat felt roof with small glass skylights. Single storey section to north used as offices and has false ceiling. Security lighting on all aspects. | Three sets of large shutter doors left open allowing access into building with many potential roost features inside.<br>Small, high gap at end of metal sheeting leading into cavity wall.<br>Three access points into single storey section of building, two holes in brickwork into cavity wall, open vent leading into roof cavity. Minimal security lighting on this aspect. |   |
| B4                 | Negligible                       | Temporary metal warehouse with plastic tent roof.                                                                                                                                                        | No features, recently erected                                                                                                                                                                                                                                                                                                                                                    |  |



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