

# HARE LANE, CHESTER

## Preliminary Ecological Appraisal Report

*February 2024*



## Report Control Sheet

*Project Name:* Hare Lane, Chester  
*Project Reference:* CW20-1629  
*Report Title:* Preliminary Ecological Appraisal Report  
*Report Reference:* CW20-1629 RPT 001  
*Printing Instructions:* Print at A4 Portrait, Double Sided.

| <i>Rev</i> | <i>Date</i> | <i>Description</i>                       | <i>Prepared</i> | <i>Reviewed</i> | <i>Approved</i> |
|------------|-------------|--|-----------------|-----------------|-----------------|
| /          | 28/02/2024  | Draft report sent to Client for comment. | OC              | KB              | OC              |
|            |             |  |                 |                 |                 |

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## EXECUTIVE SUMMARY

|   |  |
|---|--|
| <b>Site Address</b>                                 | Hare Lane, Chester, CH3 5LR  |
| <b>Grid Reference</b>                               | SJ 43415 67289   |
| <b>Approximate Site Area</b>                        | 16.8ha   |
| <b>Current Site Use</b>                             | Currently the site forms agricultural land formed of arable fields separated by native hedgerows and bordered by tree lines.   |
| <b>Designated Sites within Zone of Influence</b>    | The site is located within the Impact Risk Zone of The River Dee SSSI. No direct impacts are anticipated and no consultation with Natural England is required for a residential development within the risk zone.  |
| <b>Notable Habitat Features</b>                     | No notable habitats are present within the site. Habitats of importance at a site level include waterbodies, native hedgerow and line of trees.  |
| <b>Notable Species Applicable to the Assessment</b> | <ul style="list-style-type: none"> <li>• Bats (Potential roosting, foraging and commuting)</li> <li>• Breeding birds</li> <li>• Common amphibians and great crested newts</li> <li>• Hedgehog</li> <li>• Reptiles</li> <li>• Badgers</li> </ul>  |
| <b>Mitigation Recommendations</b>                   | <ul style="list-style-type: none"> <li>• Consideration for common amphibians and hedgehogs during habitat clearance.</li> <li>• Reasonable Avoidance Measures for reptiles.</li> <li>• Lighting consideration for bats.</li> <li>• Precautionary Working Methods for badger</li> <li>• Updated inspection of trees to be removed for bat roosting potential.</li> </ul>  |
| <b>Recommended Further Surveys and Assessment</b>   | <ul style="list-style-type: none"> <li>• Great Crested Newt Environmental DNA Surveys (15th April – 30th June)</li> <li>• Bat Activity Surveys (April – October)</li> <li>• Breeding Bird Surveys (March – July)</li> </ul>  |
| <b>Recommended Ecological Enhancements</b>          | <ul style="list-style-type: none"> <li>• Retention and enhancement of existing waterbodies on site.</li> <li>• Retention and enhancement of existing hedgerows and treelines on site.</li> <li>• Planting of linear features such as hedgerows and trees between garden plots where possible, to add commuting features within the site.</li> <li>• The inclusion of 'hedgehog highways' to facilitate movement across the site. This includes holes of 13 x 13cm at the bases of fence panels, leaving a sufficient gap beneath gates and/or leaving brick spaces at the bases of brick walls.</li> </ul> |

## CONTENTS

|          |   |           |
|----------|---|-----------|
| <b>1</b> | <b>INTRODUCTION.....</b>  | <b>4</b>  |
| 1.1.     | SCOPE & PURPOSE.....  | 4         |
| 1.2.     | LOCATION.....   | 4         |
| 1.3.     | OBJECTIVES.....   | 4         |
| <b>2</b> | <b>METHODOLOGY.....</b>   | <b>5</b>  |
| 2.1.     | DESK STUDY.....   | 5         |
| 2.2.     | VEGETATION AND HABITAT ASSESSMENT.....                            | 5         |
| 2.3.     | FAUNA ASSESSMENT.....   | 5         |
| 2.4.     | PRELIMINARY BAT ROOST ASSESSMENT AND BAT ACTIVITY ASSESSMENT..... | 5         |
| 2.5.     | SURVEY LIMITATIONS.....   | 6         |
| 2.6.     | PROPORTIONALITY.....  | 7         |
| <b>3</b> | <b>SURVEY RESULTS.....</b>  | <b>8</b>  |
| 3.1.     | SITE CONTEXT.....   | 8         |
| 3.2.     | DESIGNATED SITES.....   | 8         |
| 3.3.     | PRIORITY HABITATS.....  | 8         |
| 3.4.     | HABITATS.....   | 8         |
|          | ARABLE.....   | 8         |
|          | MODIFIED GRASSLAND.....   | 8         |
|          | BROADLEAVED WOODLAND.....   | 9         |
|          | WATERBODIES.....  | 9         |
| 3.5.     | SPECIES.....  | 10        |
|          | FLORA.....  | 10        |
|          | INVERTEBRATES.....  | 10        |
|          | AMPHIBIANS.....   | 10        |
|          | REPTILES.....   | 10        |
|          | BIRDS.....  | 11        |
|          | BATS.....   | 11        |
|          | BADGER.....   | 12        |
|          | OTHER TERRESTRIAL MAMMALS.....                                    | 12        |
|          | NON-NATIVE INVASIVE SPECIES.....                                  | 12        |
|          | SPECIES DISCOUNTED FROM ASSESSMENT.....                           | 12        |
| <b>4</b> | <b>MITIGATION RECOMMENDATIONS.....</b>                            | <b>13</b> |
| 4.1.     | DESIGNATED SITES.....   | 13        |
| 4.2.     | HABITATS.....   | 13        |
|          | WATERBODIES.....  | 13        |
|          | HEDGEROWS AND TREE LINES.....                                     | 13        |
| 4.3.     | SPECIES.....  | 13        |
|          | AMPHIBIANS.....   | 13        |
|          | REPTILES.....   | 14        |
|          | BREEDING BIRDS.....   | 14        |
|          | BATS.....   | 14        |
|          | TERRESTRIAL MAMMALS.....  | 15        |
|          | NON-NATIVE INVASIVE SPECIES.....                                  | 15        |
| <b>5</b> | <b>FURTHER SURVEYS AND CONCLUSION.....</b>                        | <b>17</b> |
| 5.1.     | FURTHER SURVEYS.....  | 17        |
| 5.2.     | OTHER MITIGATION MEASURES.....                                    | 17        |
| 5.3.     | CONCLUSION.....   | 17        |
| <b>6</b> | <b>BIBLIOGRAPHY.....</b>  | <b>18</b> |

## 1 INTRODUCTION

### 1.1. SCOPE & PURPOSE

1.1.1. Collington Winter Environmental Ltd was commissioned by Redrow Homes to undertake a Preliminary Ecological Appraisal (PEA) at Hare Lane, Chester. This report has been prepared to inform a high-level indicative masterplan of the site to determine future development.

1.1.2. The author of this report is Olivia Collington BSc (Hons), MEnvSc, CEnv Director at Collington Winter Environmental Ltd. Olivia is highly experienced managing schemes and has produced many ecological reports to inform planning management plans.

### 1.2. LOCATION

1.2.1. Please refer to Figure 1.1 for the site location.

Figure 1.1 Site Location



### 1.3. OBJECTIVES

1.3.1. The objectives of the Preliminary Ecological Appraisal are as follows:

- Identify the major habitats present.
- Ascertain the presence or potential presence of any legally protected or notable species or habitats.
- Identify any mitigation or further survey required and opportunities for strategic wildlife enhancements and long-term management.

## 2 METHODOLOGY

### 2.1. DESK STUDY

2.1.1. An initial desk-based assessment of the site was undertaken to collate baseline data. The desk study included:

- Local records were ordered on 14<sup>th</sup> February 2024, however were not returned or available at the time of writing this report.
- Review of Magic.gov.uk website for details of any designated sites, notable habitats and presence of European Protected Species Licences.
- Review of aerial and OS maps for habitat information, as well as determining locations of potential waterbodies to be considered in the assessment.
- Review of potential habitat links on and off site, to determine the potential zone of influence of the proposed development.
- On site consultation with the landowner which provided valuable information regarding historic land use and known species and habitats present within the site.

2.1.2. Please note, a lack of records for a species does not confirm absence. Instead, local surveys may not have been undertaken or records not submitted.

### 2.2. VEGETATION AND HABITAT ASSESSMENT

2.2.1. An Ecological Appraisal of the site was undertaken by Olivia Collington. The survey was undertaken on the 21<sup>st</sup> February 2024. The weather was overcast (8/8 oktas), with light precipitation, wind speed 3 and 7°C.

2.2.2. The walkover survey was undertaken broadly in line with standard UK HAB Methodology (2023). The assessment is undertaken with consideration of methodology as per "Preliminary Ecological Appraisal" (CIEEM, 2018).

2.2.3. A UK HAB Plan has been produced and is presented in the Appendix of this report. Standard methodology has been used, though adjustments have been made based on judgement to demonstrate habitats in a clearer manner, or where standard guidance does not fit the conditions found on site.

### 2.3. FAUNA ASSESSMENT

2.3.1. A search for signs of protected and notable species of fauna was undertaken during the site walkover. This included both field signs of species, as well as potential for species to be present based on habitat availability.

2.3.2. The searches broadly included the following:

- Assessment of waterbodies on site and within 250m of the site boundary, and terrestrial habitats for suitability to support notable amphibians.
- Searches for field signs of, and habitat suitability for bats.
- Suitability of habitats to support reptiles, and searches for incidental field signs.
- Searches for field signs of badger (*Meles meles*), including setts, mammal paths, snuffle holes, badger hair and latrines to indicate activity.
- Searches of watercourses for signs of water vole (*Arvicola amphibius*), white-clawed crayfish (*Austropotamobius pallipes*) and otter (*Lutra lutra*), and assessment of habitat availability for the species.
- Assessment of the suitability of habitats to support notable birds and recording any field sightings of birds during the walkover.
- Assessment of the sites ability to support notable invertebrates and flora.
- Searches for non-native invasive species.

### 2.4. PRELIMINARY BAT ROOST ASSESSMENT AND BAT ACTIVITY ASSESSMENT

2.4.1. A Preliminary Bat Roost Assessment (PRA) of the site was undertaken by Olivia Collington who holds a Class 1 Bat Survey Licence from Natural England (Reference 2020-46960-CLS-CLS).

2.4.2. The survey was undertaken following guidance set out in Collins (2023). This includes undertaking a detailed internal and external inspection of any features to compile information on potential and actual bat entry/ exit points,

roosting locations and evidence of bats.

2.4.3. Any buildings/structures were assessed as per categories listed in Table 4.1 (Collins, 2023).

2.4.4. The commuting and foraging assessment methodology is based on information contained within the Bat Conservation Trust guidelines 4th edition (Collins, 2023). The categorisation within this report is based on that set out in Table 4.1 (Collins, 2023), which is used as a basis for determining the requirement for further surveys and/or mitigation.

**Table 4.1. Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.**

| Potential suitability   | Description  |   |
|-------------------------|--|---|
|                         | Roosting habitats in structures  | Potential flight-paths and foraging habitats  |
| None                    | No habitat features on site likely to be used by any roosting bats at any time of the year (i.e. a complete absence of crevices/suitable shelter at all ground/underground levels).  | No habitat features on site likely to be used by any commuting or foraging bats at any time of the year (i.e. no habitats that provide continuous lines of shade/protection for flight-lines, or generate/shelter insect populations available to foraging bats).   |
| Negligible <sup>a</sup> | No obvious habitat features on site likely to be used by roosting bats; however, a small element of uncertainty remains as bats can use small and apparently unsuitable features on occasion.  | No obvious habitat features on site likely to be used as flight-paths or by foraging bats; however, a small element of uncertainty remains in order to account for non-standard bat behaviour.  |
| Low                     | A structure with one or more potential roost sites that could be used by individual bats opportunistically at any time of the year. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions <sup>b</sup> 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 <sup>c</sup> ). | Habitat that could be used by small numbers of bats as flight-paths such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.<br>Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.   |
| Moderate                | A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions <sup>b</sup> 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 species conservation status, which is established after presence is confirmed).   | Continuous habitat connected to the wider landscape that could be used by bats for flight-paths such as lines of trees and scrub or linked back gardens.<br>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.  |
| 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 <sup>b</sup> and surrounding habitat. These structures have the potential to support high conservation status roosts, e.g. maternity or classic cool/stable hibernation site.   | Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by bats for flight-paths such as river valleys, streams, hedgerows, lines of trees and woodland edge.<br>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.<br>Site is close to and connected to known roosts. |

## 2.5. SURVEY LIMITATIONS

2.5.1. This survey does not constitute a full botanical survey. Key species for each habitat type have been identified to give a broad representation of habitats present within the site.

2.5.2. It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation of the natural environment. This survey does not constitute a full botanical survey. Plant species may have been under-recorded, unidentifiable or not visible due to a number of factors including the time of year the survey was carried out.

2.5.3. February is a suboptimal time for carrying out a Habitat Surveys due to being outside of the optimal plant growing season. Therefore, it is likely that some plants are present on the site but were not evident at the time of the survey and were not recorded. This is not considered to be a significant constraint due to the size and location of the site and limited extent of the habitats; it is considered very unlikely that any rare or priority plant species were missed.

2.5.4. The protected species assessment provides a preliminary view of the likelihood of protected species occurring on the site. This is based on the suitability of the habitat, known distribution of the species in the local area (provided by data searches) and any direct evidence within the survey area.

2.5.5. The findings of this report represent the professional opinion of qualified ecologists and do not constitute professional legal advice. The client may wish to seek professional legal interpretation of the relevant wildlife legislation cited within this document.

## **2.6. PROPORTIONALITY**

2.6.1. Collington Winter Environmental Ltd provide recommendations in line with the British Standard for Biodiversity (BS42020). Within BS42020, proportionality is encouraged for both ecologists and Local Authority Decision Makers and Consultees. Please refer to the below extract from Section 5.5 of BS42020.

*“The work involved in preparing and implementing all ecological surveys, impact assessments and measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development. Consequently, the decision-maker should only request supporting information and conservation measures that are relevant, necessary and material to the application in question. Similarly, the decision-maker and their consultees should ensure that any comments and advice made over an application are also proportionate.*

*NOTE 1 This approach is enshrined in Government planning guidance, for example, paragraph 193 of the National Planning Policy Framework for England [41].*

*NOTE 2 The desk studies and field surveys undertaken to provide a preliminary ecological appraisal (PEA) might in some cases be all that is necessary.”*

## 3 SURVEY RESULTS

### 3.1. SITE CONTEXT

3.1.1. The site is located to the east of the city of Chester, access via Hare Lane. Habitats to the west comprise mainly residential and heavily built-up area, however habitats to the east open into agricultural land. The M53 motorway is located to the east of the site, and though this could be seen as a significant dispersal barrier, the treelined linear commuting route is anticipated to attract wildlife to the area. Access to the other side of the motorway is present for fauna as bridges connect the eastern and western aspects of the M53.

### 3.2. DESIGNATED SITES

3.2.1. The following Site of Scientific Interest (SSSI) is located within 5km from the site boundary:

- River Dee SSSI is located approximately 1.3km west from the site boundary. The River Dee is notified for its nationally important transition through a range of river types from mesotrophic to eutrophic. It is also notified for Atlantic salmon (*Salmo salar*), otter (*Lutra lutra*), club-tailed dragonfly (*Gomphus vulgatissimus*), River Lamprey (*Lampetra fluviatilis*) and fluvial geomorphology. The site includes a section of the river as it meanders across the Cheshire plain downstream from Shocklach, where it forms the national boundary, northwards through Chester to the city's western outskirts.

3.2.2. The following Special Areas of Conservation (SAC) are located within 5km from the site:

- River Dee and Bala Lake (SAC) are located approximately 2.4km west of the site and comprises an area of tidal rivers, mud flats, sand flats, Estuaries, salt marshes, inland water bodies, improved grassland and broad-leaved deciduous woodland. The site is also notified for Atlantic Salmon (*Salmo Salar*) and floating water plantain (*Luronium natans*).

3.2.3. No other statutory sites are located within 5 km of the site boundary.

### 3.3. PRIORITY HABITATS

3.3.1. Consultation with Magic.gov.uk highlighted the presence of the following Priority Habitats within 1km of the site boundary:

- Deciduous woodland is located 0.5km northeast, 0.8km northeast, 1km East, 1.1km East, 0.5km Southeast, 1km Southeast, 1.2km Northwest, 0.9km Northwest, and 0.6km Northwest from the site.
- A priority pond is located 0.7km north from the site.
- No main habitat but additional habitat exists is located 1km north, and 1km southeast from the site.

### 3.4. HABITATS

3.4.1. Please refer to Drawing 20-1629 – 001 for the UK HAB Map for the site. Photographs of the site are presented in the Appendix.

#### ARABLE

3.4.2. The majority of the site comprised arable land split into field parcels by native hedgerows associated with ditches. Negligible field margins were present surrounding the arable habitat.

#### MODIFIED GRASSLAND

3.4.3. The northernmost fields were found to comprise modified grassland which appeared managed and comprised species including perennial rye grass (*Lolium perenne*) white, clover (*Trifolium sp*), common dandelion (*Taraxacum officinale*), ribwort plantain (*Plantago lanceolata*), broad leaved dock (*Rumex obtusifolius*), and greater plantain (*Plantago major*).

3.4.4. The field parcel to the east, separated by Hare Lane was found to be more managed with a shorter sward height. Limited species were visible within this parcel.

### BROADLEAVED WOODLAND

3.4.5. To the western boundary of the site, a small broadleaved woodland copse was present, referenced as “G3” in the arboriculture report which comprised common hawthorn (*Crataegus monogyna*), blackthorn (*Prunus spinosa*), elder (*Sambucus nigra*) and mature oak (*Quercus sp.*). Additional copses labelled as “G1 and G2” in the AIA which comprised goat willow (*Salix caprea*), had standing water underneath and comprised seasonal wetland features.

### STANDING WATER

3.4.6. Three waterbodies were present within the site. WB1 comprised the area of standing water underneath G1 to the north of the site. It was heavily shaded by goat willow and connected to the drainage ditch under H1. It may be that WB1 is only present during periods of high rainfall.

3.4.7. WB2 was located to the centre and provided open water habitat and was dominated by common reed (*Phragmites australis*). Duckweed (*Lemna minor*) was present within the body of water, though negligible emergent vegetation was present.

3.4.8. WB3, similar to WB1 was located under a dense area of willow scrub and is anticipated to only be present during high periods of rainfall. It was heavily shaded, and no emergent or marginal vegetation was present.

### NATIVE HEDGEROW ASSOCIATED WITH DITCH

3.4.9. The arable field parcels were separated by native hedgerows which typically comprised ash (*Fraxinus excelsior*), hawthorn, elder and oak. Some of the hedgerows contained occasional mature trees along their length.

3.4.10. All hedgerows were associated with drainage ditches underneath which were flooded at the time of survey due to a recent period of heavy rainfall. No emergent or marginal vegetation was present in any of the ditches, and none of the ditches connect to off site watercourses.

### LINE OF TREES

3.4.11. The site was bordered by broadleaved lines of trees. Please refer to line of tree references in the Tree Constraints Plan (Collington Winter, 2024):

G6 – To the southern site boundary comprised sycamore (*Acer pseudoplatanus*), horse chestnut (*Aesculus hippocastanum*), common hazel (*Corylus avellana*), hawthorn, beech (*Fagus sylvatica*), ash, blackthorn, oak and elder.

G7 – To the south east of the site comprised common beech and pedunculate oak (*Quercus robur*).

G8 – Along the west of Hare Lane comprised silver birch (*Betula pendula*), dogwood (*Cornus sanguinea*), common hazel, hawthorn, ash, blackthorn, oak and goat willow.

G9 – Along the western boundary of the site and comprised hawthorn, blackthorn and elder.

G10 – Along the eastern aspect of Hare Lane, comprised alder, silver birch, hazel, hawthorn, ash, aspen (*Populus tremula*), pedunculate oak and common lime (*Tilia x europaea*).

G11 – Along the eastern aspect of the eastern field comprised sycamore, common hawthorn and elder.

G12 – To the north of the site comprised common hawthorn and elder.

G15 – To the centre of the grassland fields to the north, comprised of blackthorn.

G16 – Along the northern aspect of Green Lane, comprised common hawthorn and blackthorn.

G17 – Along the eastern aspect of Ring Road A41 comprised common hawthorn and blackthorn.

### 3.5. SPECIES

#### FLORA

3.5.1. The habitats on site comprised mainly arable land or managed modified grassland which do not have the potential to support notable flora species. The ponds were heavily shaded and lacked vegetation structure and are not anticipated to support any notable flora. The hedgerows were typically species poor and similarly are not anticipated to support any notable flora.

#### INVERTEBRATES

3.5.2. The habitats on site provide negligible potential to support notable invertebrates in any significant numbers. The ponds and hedgerows were species poor, and unlikely to support notable invertebrates in any significant numbers.

#### AMPHIBIANS

3.5.3. The following EPSLs for great crested newt were located within 5km from the site boundary, based on Magic.gov.uk:

| Case reference of granted application | Species on the licence* | Distance from site (KM) and Direction | Licence Start Date | Licence End Date | Does the Licence           |                                |                                  |                                     |                                       |
|---------------------------------------|-------------------------|---------------------------------------|--------------------|------------------|----------------------------|--------------------------------|----------------------------------|-------------------------------------|---------------------------------------|
|                                       |                         |                                       |                    |                  | impact on a breeding site? | allow damage of breeding site? | allow damage of a resting place? | allow destruction of breeding site? | allow destruction of a resting place? |
| 2016-20115-EPS-MIT-1                  | GCN                     | 0.8 N                                 | 30/03/2016         | 30/07/2020       | N                          | N                              | Y                                | N                                   | Y                                     |
| EPSM2009-699                          | GCN                     | 1.2 N                                 | 14/04/2009         | 31/3/2010        | N                          |                                |                                  | N                                   | Y                                     |
| 2015-14501-EPS-MIT                    | GCN                     | 3.3 S                                 | 30/09/2015         | 30/04/2019       | N                          | N                              | Y                                | N                                   | Y                                     |
| 2017-27762-EPS-MIT                    | GCN                     | 4.9 SW                                | 03/04/2017         | 31/07/2020       | N                          | N                              | Y                                | N                                   | Y                                     |
| EPSM2010-2300                         | GCN                     | 5.2 NW                                | 01/03/2011         | 31/07/2013       | N                          |                                |                                  | N                                   | Y                                     |
| EPSM2013-5397                         | GCN                     | 3.6 NW                                | 07/06/2013         | 30/06/2022       | N                          |                                |                                  | N                                   | Y                                     |
| 2018-36992-EPS-MIT                    | GCN                     | 4 NW                                  | 27/09/2018         | 31/07/2026       | N                          | N                              | Y                                | N                                   | Y                                     |
| 2018-36504-EPS-MIT                    | GCN                     | 3.8 NW                                | 04/09/2018         | 30/07/2026       | N                          | N                              | Y                                | N                                   | Y                                     |
| EPSM2009-978                          | GCN                     | 4.4 N                                 | 01/02/2010         | 30/10/2010       | N                          |                                |                                  | N                                   | Y                                     |
| EPSM2011-3200                         | GCN                     | 4.2 N                                 | 23/06/2011         | 31/08/2011       | N                          |                                |                                  | N                                   | Y                                     |

3.5.4. Three waterbodies were present within the site boundary, which have been subject to a Habitat Suitability Assessment. A further two ponds were located within 250 m of the site which were not accessed during the survey due to being located on third party land.

3.5.5. WB1 and WB3 were found to have a HSI score of “Poor” (0.33) based on total shading, annual drying, negligible emergent vegetation and poor water quality. WB2 was found to hold “Below Average” suitability (0.51) for great crested newt.

3.5.6. The site comprised of arable land to the east and native hedgerows associated with ditches. which may provide suitable foraging resources and cover for common amphibians such as common toads (*Bufo bufo*). The three water bodies located on site may provide suitable conditions for breeding common amphibians.

3.5.7. The presence of great crested newts within the site cannot be discounted, based on local known records. The site is well connected to ponds to the east of the site.

#### REPTILES

3.5.8. The site provided limited value for reptiles, with the majority being comprised arable land or managed modified grassland. The boundary treeline, as well as hedgerows associated with ditches may provide some value for the species including grass snake (*Natrix Helvetica*) and slow worm (*Anguis fragilis*).

3.5.9. It is unlikely that reptiles are present on site in large numbers but the species cannot be discounted.

## BIRDS

- 3.5.10. The site provide value for a range of passerine species by way of the native hedgerows, line of trees and scattered trees. The site is well connected to the wider area and species associated with agricultural landscapes are anticipated to be present.
- 3.5.11. The site provides some value for foraging birds of prey such as barn owl (*Tyto alba*), though no trees or buildings were present which provide suitable nesting features for the species.
- 3.5.12. Ground nesting birds could use the arable habitats, though the field parcels were typically small which makes the site less favourable for the species group.

## BATS

- 3.5.13. The following EPSL were located within 5km from the site boundary:

| Case reference of granted application | Species on the licence*                 | Distance from site (KM) | Licence Start Date | Licence End Date | Does the Licence           |                                |                                  |                                     |                                       |
|---------------------------------------|---|-------------------------|--------------------|------------------|----------------------------|--------------------------------|----------------------------------|-------------------------------------|---------------------------------------|
|                                       |   |                         |                    |                  | impact on a breeding site? | allow damage of breeding site? | allow damage of a resting place? | allow destruction of breeding site? | allow destruction of a resting place? |
| 2014-3797-EPS-MIT                     | C-PIP                                   | 0.9 SE                  | 16/10/2014         | 01/10/2015       | N                          | N                              | N                                | N                                   | Y                                     |
| EPSM2010-2388                         | C-PIP; BLE; WHISK                       | 3 SE                    | 28/10/2010         | 31/08/2012       | N                          |                                |                                  | N                                   | Y                                     |
| 2019-43800-EPS-MIT                    | S-PIP; BLE; NATT; WHISK                 | 3.5 SW                  | 12/12/2019         | 31/03/2025       | Y                          | Y                              | Y                                | N                                   | N                                     |
| 2015-18102-EPS-MIT-1                  | C-PIP                                   | 4.8 SW                  | 23/03/2016         | 30/04/2016       | N                          | N                              | N                                | N                                   | Y                                     |
| EPSM2009-586                          | BLE                                     | 3.7 NW                  | 30/04/2009         | 29/04/2011       | N                          |                                |                                  | N                                   | Y                                     |
| 2017-31806-EPS-MIT-1                  | C-PIP; NOCT; S-PIP                      | 3.8 NW                  | 08/10/2018         | 30/08/2028       | N                          | N                              | N                                | N                                   | Y                                     |
| EPSM2009-1544                         | BLE                                     | 3.9 NW                  | 04/01/2010         | 30/09/2011       | N                          |                                |                                  | N                                   | Y                                     |
| 2017-27753-EPS-MIT                    | BLE; C-PIP                              | 4.7 NW                  | 01/03/2017         | 30/04/2022       | Y                          | Y                              | Y                                | N                                   | N                                     |
| EPSM2010-1725                         | C-PIP; BLE; NATT                        | 5.3 NW                  | 24/02/2010         | 30/09/2011       | Y                          |                                |                                  | Y                                   | Y                                     |
| 2020-44369-EPS-MIT                    | BLE                                     | 3.5 NW                  | 01/04/2020         | 13/02/2030       | Y                          | N                              | N                                | Y                                   | Y                                     |
| 2018-35802-EPS-MIT                    | BLE; C-PIP; DAUB; L-HORSE; NATTS; S-PIP | 2.7 N                   | 10/07/2018         | 09/07/2028       | N                          | N                              | N                                | N                                   | Y                                     |
| 2018-36018-EPS-MIT                    | BRAN; C-PIP; S-PIP                      | 4.1 N                   | 01/09/2018         | 30/04/2029       | N                          | N                              | N                                | N                                   | Y                                     |
| 2018-36566-EPS-MIT                    | BLE; C-PIP                              | 5.3 S                   | 23/08/2018         | 20/08/2028       | Y                          | Y                              | N                                | N                                   | N                                     |

| Species on the licence* | Species name         | Latin                            |
|-------------------------|----------------------|----------------------------------|
| C-PIP                   | Common pipistrelle   | <i>Pipistrellus pipistrellus</i> |
| BLE                     | Brown long-eared bat | <i>Plecotus auritus</i>          |
| DAUB                    | Daubenton's bat      | <i>Myotis daubentonii</i>        |
| S-PIP                   | Soprano Pipistrelle  | <i>Pipistrellus pygmaeus</i>     |
| NATTS                   | Natterers Bat        | <i>Myotis nattereri</i>          |
| WHISK                   | Whiskered Bat        | <i>Myotis mystacinus</i>         |
| NOCT                    | Noctule Bat          | <i>Nyctalus noctula</i>          |
| BRAN                    | Brandt's Bat         | <i>Myotis brandtii</i>           |
| L-HORSE                 | Lesser Horseshoe Bat | <i>Rhinolophus hipposideros</i>  |

- 3.5.14. The habitats on site are anticipated to attract foraging and commuting bats based on the linear features present, as well as habitats such as waterbodies. The site was assessed as having moderate value for foraging and commuting bats.
- 3.5.15. Several trees within the site were found to have bat roosting potential, as shown on the UK HAB Plan in the Appendix. The trees were of a size and age or displayed features such as dense ivy coverage or lost/ cracked limbs which could support roosting bats. Further trees may be present with bat roosting potential in the boundary tree lines.

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### BADGER

- 3.5.16. No signs of badger presence were recorded within the site or the (accessible) surrounding 30 m during the site visit. The site provides high value habitats for badger and is well connected to the local landscape. Badger is anticipated to be present locally.

### OTHER TERRESTRIAL MAMMALS

- 3.5.17. Given the habitats present within the site including hedgerows and treelines, it is anticipated that hedgehog could be present within the site.

### NON-NATIVE INVASIVE SPECIES

- 3.5.18. No non-native invasive species were observed during the survey. However, February is a sub-optimal period for identification, and it is possible specimens may have been missed.

### WATER VOLE AND OTTER

- 3.5.19. The ditches on site underneath hedgerows provided negligible value for water vole and otter, being heavily shaded, lacking emergent vegetation and having shallow banksides. The ditches are associated with drainage, and only expected to hold water during periods of heavy rainfall. The ditches do not connect to any offsite water features.

- 3.5.20. The site was assessed as providing negligible value for otter and water vole.

### SPECIES DISCOUNTED FROM ASSESSMENT

- 3.5.21. Hazel Dormouse (*Muscardinus avellanarius*) mainly occur in southern counties, especially in Devon, Somerset, Sussex, and Kent. There are few recorded localities north of the Midlands, though they are present in parts of the Lake District and in scattered Welsh localities (Matthews et al, 2018). The species are not generally known to be present within the local area (Wembridge et al., 2016). The habitats on site are of limited value due to limited areas of extensive woodland and scrub. As such, the species are reasonably discounted from site.
- 3.5.22. Red squirrel (*Sciurus vulgaris*) has been discounted from the assessment. Red squirrel populations are limited to small areas of northern England and are not known to be present in the Walsall area; with no previous records returned in the data search. It is anticipated that high abundances of grey squirrel (*Sciurus carolinensis*) are present within this region (Shuttleworth/RSST n.d.). This species will displace red squirrel through competition as well as cause increased red squirrel mortality through the spread of squirrel pox (The Mammal Society, 2020).

## 4 MITIGATION RECOMMENDATIONS

### 4.1. DESIGNATED SITES

- 4.1.1. Two designated sites are located within 5km from the site including a SSSI and a SAC. The closest site relates to River Dee SSSI located approximately 1.3km west of the site boundary. No consultation is required with Natural England based on information provided by Magic.gov.uk for new residential developments. No direct impacts on the River Dee are anticipated as a result of the residential development and the site is not connected directly or indirectly via watercourses.
- 4.1.2. The development will create an increase in anthropogenic pressure through dog walkers and other recreational activities which could impact the SSSI. However, the scheme is to provide a suitable area of Public Open Space to mitigate this impact.

### 4.2. HABITATS

#### *WATERBODIES*

- 4.2.1. The waterbodies on site should be retained and enhanced, if possible, through any design. WB2 to the centre of the site was a mature pond with established vegetation, though dominated by common reed which could be thinned to allow other marginal vegetation to establish.
- 4.2.2. WB1 and WB3 were shallow and heavily shaded by willow scrub. Management of the scrub would provide enhancement to the waterbody.

#### *HEDGEROWS AND TREE LINES*

- 4.2.3. The linear features comprising hedgerows and treelines should be retained within the scheme where possible to retain linear commuting routes for wildlife. Enhancements to these habitats would include supplementary native planting to create species rich hedgerows.
- 4.2.4. If the hedgerows can't be retained, alternative linear planting should be provided to maintain the linear commuting routes within the site, both at east/ west and north/ south orientations.

### 4.3. SPECIES

#### *AMPHIBIANS*

- 4.2.5. Great crested newts are known to be present in the local area, and the waterbodies on site could have value for the species in their aquatic phase. Further survey is required to determine presence/ absence of the species (See Section 5).
- 4.2.6. Within any masterplan, it is recommended that the two waterbodies on site are retained and enhanced. If great crested newts are found to be present, a Mitigation Strategy will be required to detail mitigation for the species.
- 4.2.7. Mitigation can form two options:
- On site mitigation through retention of waterbodies, and creation of a GCN Habitat Area to be protected throughout works. A Natural England European Protected Species Licence would be required.
  - Enrol the scheme on the Natural England District Level Licencing Scheme. Once enrolled, there is no requirement to perform any on site mitigation for the species.
- 4.2.8. It is recommended that consideration of common amphibian presence during habitat clearance is considered. Any debris is to be cleared by hand, and any common amphibians located moved carefully, by hand, to outside of the impacted area.

*REPTILES*

4.2.9. The site presented opportunities for sheltering reptiles associated with the hedgerows and treelines.

4.2.10. Any vegetation should be cleared under Reasonable Avoidance Measures (RAMs). The RAMs are as follows:

- An experienced Ecological Clerk of Works (ECoW) shall be appointed to ensure RAMs are enforced.
- A copy of this method statement must be kept on site (we suggest having a laminated copy in the site office/ compound);
- A walkover of the area should be undertaken by the ECoW to determine any change in status of the habitats/structures on site prior to the initiation of any works.
- A toolbox talk by the appointed ECoW will be given to the site manager and all contractors working on site with respect to the surrounding habitats and potential for protected/notable species. A copy of species factsheets relating to reptiles and breeding birds will be provided for display within the site office.
- Suitable vegetation is to be strimmed under ECoW to approximately 15cm in a northern to southern direction. It is to be checked by the ECoW following strimming to identify individuals. If discovered, they will be removed from the working area and covered. Once the areas are deemed reptile free, they are to be strimmed to ground level and maintained at this length for the remaining works.
- Any excavations will be backfilled on the same day as excavation or checked by the ECoW immediately prior to backfilling. This also considers avoiding temporary water bodies which may be attractive to amphibians. If it is not possible to backfill on the same day, a ramp, will be provided in all excavations or alternatively, all excavations should be well-covered with plywood.
- No piles of loose construction materials are to be created during works – all material will be kept on hardstanding, stored on pallets, removed immediately from the site or checked by an ECoW prior to being removed.
- In the event reptiles are discovered, works will halt immediately and the ECoW will be contacted for advice. Contractors are not to handle reptiles unless informed to do so by the ECoW.

4.3.1. The precautionary destructive search work will be undertaken during the summer at a time of year when reptiles are active. The ecologist will be present during the strimming works. Any reptiles found during the destructive search will be relocated to the retained grassland to the south of the site.

4.3.2. During the construction period, the development zone will be maintained clear of vegetation in order to remove the likelihood of any reptiles re-colonising the site.

*BREEDING BIRDS*

4.2.11. Nesting birds are anticipated to utilise the hedgerows and treelines for nesting. It is recommended that further breeding bird surveys be undertaken to determine the sites value for ground nesting birds (See Section 5).

4.2.12. Any vegetation management should be undertaken outside of the breeding bird season (March to September, inclusive). If this is not possible, a suitably qualified ecologist should undertake a nesting bird check no more than 48 hours prior to removal. If nesting activity is observed, the nest(s) should be left in situ until the young have fledged. A suitable buffer will be maintained and determined by the ecologist.

4.2.13. The masterplan should seek to retain suitable breeding bird habitat through the retention of the hedgerows and treelines. It is recommended that bird boxes targeting local species in incorporated into the proposed development to allow for the continuity of nesting opportunities. Provision of new residential gardens and associated soft landscaping is anticipated to enhance the site for passerine species.

*BATS*

4.2.14. Individual trees identified on site with bat roosting potential are all located within the hedgerows and tree lines, and therefore it is anticipated that these could be retained by any masterplan. If any trees do require removal, then an updated inspection should be undertaken by a suitably experienced ecologist. Further survey in the form of climbed inspection or nocturnal emergence surveys may be required.

- 4.2.15. It is recommended that the masterplan seeks to retain the hedgerows and treelines, thereby retaining the linear commuting features on the site. Night Time Bat Walkover surveys are recommended to determine key commuting and foraging routes for bats and determine appropriate mitigation (See Section 5).
- 4.2.16. Slow-flying species such as brown long-eared bat, which are known to be in the local area, are sensitive to lighting and may be impacted by the proposed development, should no mitigation for lighting be considered.
- 4.2.17. Any proposed lighting/existing lighting should follow the guidance outlined in the Institute for Lighting Engineers document “Guidance for the Reduction of Obtrusive Lighting” (2005) and BCT’s “Bats and Artificial Lighting at Night” (2023).
- 4.2.18. An External Lighting Scheme had not been produced on the writing of this report. As such, the following recommendations are to be considered within the scheme during its condition, to minimise impacts of lighting. The recommendations are as follows:
- Keep site lighting to minimum levels.
  - Luminaries should lack UV elements and preferably LED lighting with a warm white light should be used over cool white light (ideally <2700Kelvin).
  - Lighting should feature peak wavelengths greater than 550nm.
  - Light placement should be downward facing to prevent excess horizontal or vertical light spill.
  - The use of integrated fittings such as cowls, shields, louvres and hoods, that effectively contain light spill from unintended areas.
  - The use of hard landscaping features to block light and create dark corridors.
  - Avoid illuminating habitats of value.
  - Use of timed security lights should be set on motion-sensors and using short, 1-minute timers, to minimise light use.
  - Column heights of lighting can be considered to minimise light spill.

#### *TERRESTRIAL MAMMALS*

- 4.2.19. European Hedgehog are anticipated to be present within the site and are a Species of Principal Importance. During habitat removal, any areas of dense vegetation should first be carefully hand searched to check for the species. If identified during management, should be relocated carefully by hand to a location away from the working area. If any injured either species are located, they should be taken to a local vet.

#### *NON-NATIVE INVASIVE SPECIES*

- 4.2.20. No non-native invasive species were identified during the survey. However multiple records were recorded within the area, and it is possible specimens may have not been recorded during the survey. If any flora species listed on Schedule 9 of the Wildlife & Countryside Act are identified on site, they should be appropriately eradicated by a specialist contractor.

#### *BADGER*

- 4.2.21. The following Precautionary Working Methods will also be adhered to during the construction phase to ensure that no badgers are impacted by the proposed development (Badger Trust, 2023):
- A pre-commencement of work badger survey should be conducted by a suitably qualified ecologist to ensure the current badger situation is known and that the recommendations are correct.
  - All site personnel should be fully briefed concerning the method statement, the presence of badgers, the mitigation measures to be followed, the relevant legislation, the penalties imposed and who to contact should they need to.
  - Trees and shrubs should be felled so that they fall away from the direction of a sett and outside exclusion zones.
  - Ensure excavations or trenches left overnight are covered or have an escape route such as a shallow gradient at one or both ends.
  - Ensure excavations or trenches are inspected each morning and evening to ensure no badgers have become trapped.
  - Open pipework with a diameter of more than 120mm should be properly covered or capped at the end of the working day to prevent badgers from entering and becoming trapped.
  - During the work, the storage of any chemicals should be contained in such a way that they cannot be

accessed or knocked over by any roaming badgers.

- The storage of topsoil or other “soft” building materials within the site should be given careful consideration. Badgers will readily adopt such mounds and dig setts which would then be afforded the same protection as established setts. To avoid the adoption of such mounds, they should be subject to daily inspections before work commences or alternative measures put in place, such as being fenced off for higher-risk areas.
- Litter, tools and potentially dangerous materials on site should be cleared at the end of the working day. Care should be taken that there are no sharp metal objects or pointed protrusions on the ground which could seriously injure a badger due to their poor eyesight.
- Ensure no dogs are brought to the work site.
- Security lighting should be kept to a minimum and away from setts to avoid disturbance to any badgers on site.
- Fires should be lit only in secure compounds away from areas of badger activity and should be fully extinguished at the end of the working day.
- Badger paths must not be blocked to ensure access to foraging areas is maintained.

4.2.22. Adherence to these measures should be confirmed to planners at regular intervals by the project ecologist.

## 5 FURTHER SURVEYS AND CONCLUSION

### 5.1. FURTHER SURVEYS

#### *GREAT CRESTED NEWT ENVIRONMENTAL DNA*

5.1.1. It is recommended that the waterbodies on site, and within 250 m (where access can be obtained) be subject to environmental DNA analysis to determine presence/ absence of great crested newts. This can only be undertaken between 15th April – 30th June.

#### *NIGHT TIME BAT WALKOVER SURVEYS*

5.1.2. The site was assessed as providing moderate value for foraging and commuting bats. Therefore, in Accordance with Best Practice guidelines (Collins, 2023), a minimum of one transect survey per season should be undertaken. The surveys should be undertaken between April - October during suitable weather conditions. The surveys consist of a walked transect through the site 2 hours after dusk or pre dawn, collating data of species assemblage and flight paths within the site, to determine value of the habitats for bats. The transect surveys will be accompanied with the deployment of static bat detectors at strategic locations within the site, in accordance with best practice guidance.

#### *BREEDING BIRDS SURVEYS*

5.1.3. A minimum of three breeding bird surveys are recommended between March-July to identify bird species using habitats within the site. The surveys will follow methodology listed in Bird Survey Guidelines (2021). The visits will include a walked transect of the site no later than 1 hour after sunrise. A report will be produced detailing the results of the surveys, and any further mitigation required for the species.

### 5.2. OTHER MITIGATION MEASURES

5.2.1. Mitigation measures have been outlined to proceed with the proposed development and include:

- Consideration for common amphibians and hedgehogs during habitat clearance.
- RAMs for reptiles.
- Bird boxes targeting local species should be incorporated into the scheme to mitigate for the loss of suitable breeding bird habitat.
- Lighting consideration for bats.
- Soft felling for the individual trees on site (if required).
- Precautionary Working Methods for badgers and updated walkover.
- Updated inspection of any trees to be removed for bat roosting potential.

### 5.3. CONCLUSION

5.5.1. The site was found to comprise arable and modified grassland fields, separated by hedgerows and treelines which were the most valuable habitats on site. Three waterbodies are present on site, as well as a series of drainage ditches. The site was found to have value or potential value for amphibians (including great crested newt), bats, breeding birds, reptiles, hedgehog and badger.


5.5.2. Specific enhancement recommendations for the site include the following:

- Planting of linear features such as hedgerows and trees between garden plots where possible, to add commuting features within the site.
- The inclusion of 'hedgehog highways' to facilitate movement across the site. This includes holes of 13 x 13cm at the bases of fence panels, leaving a sufficient gap beneath gates and/or leaving brick spaces at the bases of brick walls.
- Retention and enhancement of existing hedgerows and tree lines on site.
- Retention and enhancement of existing waterbodies on site.

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| Description  | Photographs  |
|--|--|
| <p>Arable fields present across much of the site.</p>  |    |
| <p>Example of native managed hedgerow and waterlogging present within the field parcels.</p> |   |
| <p>WB2 to the south of the site. Common reed dominated the margins.</p>                      |  |

Example mature tree with bat roosting potential to boundary of the site.



Wet drainage ditch present under native hedgerow.



WB1 located to the north of the site dominated by dense willow scrub. Anticipated to be seasonally wet.



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