Brindle &Green

Ecological Impact Assessment

Land at Ashby Road, Hinckley, Leicestershire

Report Reference: BG24.214

September 2025

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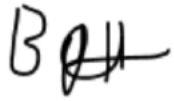
2nd Check by	Byron Humphries ACIEEM Senior Ecologist		29/11/2024
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Draft REV2	Lloyd Wyatt Consultant Ecologist	Minor amendments.
Draft REV3	Lloyd Wyatt Consultant Ecologist	Amendments to Biodiversity Net Gain calculations and inclusion to Phase 2 results.
Final	Lloyd Wyatt Consultant Ecologist	Inclusion of breeding bird survey data and evaluation. Finalisation of report.

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1 Summary

1.1 EcIA Contents

1.1.1 The production of an Ecological Impact Assessment (EcIA) is considered the best practice methodology (by the Chartered Institute of Ecology and Environmental Management (CIEEM)) for documenting all ecological issues associated with proposed development and supersedes the more out of date method of preparing individual reports for differing species and habitats. The aim is to consider any impacts alongside each other, to provide a coordinated solution when considering mitigation, and to set out clear and well-defined enhancement prescriptions that work in line with the plans for development. Through assessing the scale of impact (Page 23) the aim is to result in a scheme that is assessed as making a positive contribution to biodiversity at a local level at the very least.

1.1.2 This EcIA draws on the results of the Preliminary Ecological Appraisal (PEA) undertaken and reported upon previously (BG24.214 PEA, July, 2024) and adds the results of additional protected species that have been completed since. In the case of this site, the PEA identified habitats suitable for supporting roosting bats, foraging and commuting bats, breeding birds, reptiles, Great crested newts (GCN), badgers and water vole, as well as considering the usual impacts associated with other species of principle importance listed under section 41 of The Natural Environment and Rural Communities (NERC) Act 2006.

1.1.3 Protected species surveys undertaken during the active season of 2024 failed to identify the presence of water vole, badgers, reptiles or roosting bats within the application boundary. Further surveys targeted at great crested newts (GCN) were undertaken during the 2025 season and failed to identify the presence of this species. this report will be updated with the results upon completion of the surveys. The breeding bird surveys completed in the 2025 survey season recorded a total of 24 bird species within the application boundary, with nine species were considered notable, owing to their BAP or BoCC status.

1.1.4 This report was compiled following the revised Guidelines for EcIA in the UK and Ireland (CIEEM, 2018).

2 Introduction

2.1 Context

2.1.1 Brindle and Green Ltd were commissioned by Davidsons Developments to provide an Ecological Impact Assessment (EcIA) at Land at Ashby Road, Hinckley (Figure 1). This EcIA report documents the constraints identified within the Preliminary Ecological Appraisal undertaken by Brindle and Green Ltd (BG24.214) and adds the results of additional protected species and habitat surveys undertaken during 2024. The EcIA includes the following sections:

- Baseline Ecological Conditions
- Assessment of effects and mitigation measures
- Enhancement strategy
- Summary of residual effects

2.1.2 The application site is approximately 5.53ha and situated north of Hinckley, Leicestershire. The project site is dominated by arable cropland bound by a series of hedgerows. The redline boundary is bound to the west by Ashby Road (A447) whilst the A47 carriageway lies approximately 90m south with residential development associated with Hinckley town located beyond. To the north and east arable farmland dominates the local environment interspersed with further mature hedgerows, treelines and scattered trees.

2.1.3 The site is the subject of an outline application for residential development with all matters reserved apart from the main vehicular access from Ashby Road. An illustrative layout is provided in Appendix 6 of this report, which shows development blocks for dwellings and gardens and also areas of open space/landscaping.

2.1.4 This report prescribes additional mitigation measures during construction and post-construction phases to avoid, reduce or reverse adverse impacts and achieve biodiversity gains.

2.1.5 Results presented within this report have been prepared by an experienced ecologist and are therefore the view of Brindle and Green Limited. The survey is based on information provided by our client, the development proposals, and the results of the desk study and our survey of the site.

3 Methodology

3.1 Desk Study

3.1.1 Table 1 lists organisations and/or resources used as part of the desk study process. Data regarding any known statutory or non-statutory sites in addition to any records for protected species were requested from the following sources:

Table 1: Ecological Data Resources

Consultant	Requested Data	Search Radius	Date Requested
Local Ecological Records Centre *Leicestershire and Rutland Environmental Records Centre (LRERC)*	Protected and notable species records Local, National and International Site Designations	2km	19/09/2024
MAGIC Maps	National and International Site Designations Granted EPS Development Licences	2km	15/06/2024

3.2 Extended Phase 1 Habitat Survey

3.2.1 A Phase 1 habitat survey was undertaken following survey guidance (JNCC 2007) to establish the presence and distribution of habitat types within the site and potential ecological constraints to development. A Phase 1 Habitat Map was produced (Appendix 1) and a plant species list (Appendix 2) summarising all plants identified on site was produced during the survey and all scientific nomenclature was produced according to Stace (2010).

3.2.2 This survey was extended to note the potential for habitats on-site to support protected and/or notable species and for evidence of any such species. The habitats on site were assessed for their suitability to support protected species in relation to the habitat types found at the site. Any incidental sightings of field signs were noted at the time of survey. Where evidence of, or the confirmed presence of a protected species was identified, further, species specific surveys are recommended to ensure that the presence or otherwise of a legally protected species is fully considered prior to the determination of any planning approval or to guide an EPS development licence.

3.2.3 Hedgerows on site were assessed following the Hedgerow Survey Handbook (DEFRA 2007) and defined as species-rich if the structural species making up a surveyed 30m section of hedgerow

included at least four native woody species. Results were compiled and assessed against qualifying criteria within the Hedgerow Regulations (1997) and also the UK Biodiversity Action Plan.

3.2.4 Legislation, guidance and methodology for species relevant to this site are presented in full within Appendix 3 of this report.

3.2.5 The survey was undertaken by Kinzie Watts MSc (Hons), Natural England Hazel Dormouse Licence Class 1 (2021-53219-CLS-CLS) Natural England Great Crested Newt licence (2021-53259-CLS-CLS), Principal Ecologist and Lloyd Wyatt BSc (Hons), Consultant Ecologist on the 24th of April 2024.

3.3 Phase 2 Surveys

3.3.1 Within the Preliminary Ecological Appraisal (PEA), The following ecological phase 2 surveys were recommended to allow a full impact assessment on the ecological value of the application site.

- Breeding Bird Survey
- Ground Level Tree Assessment for Roosting Bats
- Bat Activity Survey
- Reptile Survey
- Great Crested Newt Survey
- Badger Survey
- Water Vole Survey

Breeding Bird Survey

3.3.2 Breeding Bird Surveys (BBS) will be carried out in accordance with a modified version of Gilbert G, Gibbons DW, Evans J. (1998) Bird Monitoring Methods: Breeding Bird Survey (BBS) (pages 389-393) and Breeding Bird Survey Methodology (Bird Survey Guidelines for assessing Ecological Impacts).

3.3.3 Survey visits were timed to ensure the optimal recording of breeding bird species. All habitats on site, unless otherwise stated, were examined for breeding bird activity. All visits and counts also consider bird activity within habitat associated with the application site.

3.3.4 Surveys were undertaken by a single surveyor walking a transect route encompassing the site boundary and the habitats within the interior of the application site. The transect is walked at a slow pace with frequent pausing to record birds heard or observed.

3.3.5 Bird locations and behaviours were mapped onto A3 OS Detail Maps using British Trust for Ornithology (BTO) codes. The transect route can be modified where a risk of undue disturbance to breeding birds was identified.

3.3.6 Observers assessed the number of proven, probable and possible breeding birds following the criteria set out below:

3.3.7 Breeding is proved if:

- a nest or used nest is found
- a nest with young is seen or heard
- recently fledged young are located
- adults are seen entering or leaving a nest-site, or an adult is seen incubating
- an adult is seen carrying a faecal sac or food for young

3.3.8 Breeding is probable if:

- a pair of birds is seen in suitable nesting habitat during the breeding season
- a male is heard singing at the same place on two or more occasions
- courtship and/or display are seen
- a bird is seen visiting a probable nest-site
- birds exhibit agitated behaviour or give alarm-calls
- nest-building is observed

3.3.9 Breeding is possible if:

- birds are seen in the breeding season
- birds are seen in possible nesting habitat during the breeding season
- a singing male is heard once during the breeding season

3.3.10 Six visits have been undertaken on 03/04/2025, 08/04/2025, 03/05/2025, 23/05/2025, 24/06/2025 and 01/07/2025 between 04:30 and 08:00 BST under favourable weather conditions. Survey visits were timed to ensure the recording of both resident and migrant breeding birds. The surveys were carried out by Harry Huddart (BSc) Natural England Great Crested Newt Licence (2022-10607-CL08-GCN), Senior Ecologist.

Ground Level Tree Assessments

3.3.11 Trees within the application site were subjected to a ground level tree assessment of their suitability to support potential roost features such as knot holes and cracks in the limbs providing suitability bats. Their suitability was categorised based upon Bat Conservation Trust guidance (Table 2) following visual assessment and categorised into one of four categories.

Table 2: Guidelines for assessing the suitability of a tree to support roosting habitat amended from Collins, J (2023)

Ground Level Tree Assessment	
Negligible	Absence of PRF features suitable to support roosting bats
PRF - I	PRF only suitable for individual bats or small numbers of bats due to size or lack of suitable surrounding habitats
PRF - M	PRF suitable for multiple bats and may therefore be used by a maternity colony
Known roost	Known roost present through local records, evidence, sightings, etc

3.3.12 The survey was carried out on 01/08/2024 by Byron Humphries BSc (Hons), ACIEEM, NPTC Certified Tree Climber, Senior Ecologist. The survey was overseen by Lucinda Sweet PhD, MCIEEM, Natural England Bat Licence Class 2 (2019-39122-CLS-CLS), Director.

Bat Activity Survey

3.3.13 Bat activity surveys were carried out following the guidelines outlined within Natural England's Bat Mitigation Guidelines (Mitchell-Jones, 2004) and the Bat Conservation Trust Good Practice Guidelines (Colins, 2023). Three dusk transect surveys were undertaken, one per season in Summer (August) , Autumn (October) 2024 and Spring (May) 2025.

3.3.14 Two surveyors walked a pre-planned route at a constant speed along the linear features of the application site, in order to collect bat activity data. Surveyors stopped at predetermined point count locations along the transect where activity was recorded for a 5-minute period. If a bat crossed during the transect, it was recorded, and the direction of activity recorded before continuing the transect. Surveyors were equipped an Echo Meter Touch detector connected to an iPhone. Where possible, species were identified using information from visual and audio cues,

all sonograms were recorded on to the iPhone and were analysed using Analook software to confirm species identification.

3.3.15 A remote bat detector (SM4) was positioned upon the transect route, in order to collect bat activity data while unattended, over a prolonged period of time. The detector was set to activate 15 minutes prior to sunset and de-activate 15 minutes following sunrise. An automated survey was carried out for a 5-day period per month July to October. The SM4 data aims to provide context to the transect surveys carried out each month. To this purpose, five consecutive nights worth of SM4 data were collected and analysed, where possible including each of the nights on which transect surveys were undertaken.

3.3.16 The dusk transects surveys began at sunset and lasted for up to two hours following sunset. The Summer survey was conducted on 13/08/2024 by Emily Stone BA (Hons), MSc (Hons), Qualifying Member of CIEEM, Consultant Ecologist, and Becky Wilson Seasonal Ecologist. The Autumn survey was conducted on 09/10/2024 by Joe Allsop MSc BSc (Hons), Qualifying Member of CIEEM, Natural England Great Crested Newt Licence (2023-11512-CL08-GCN), Consultant Ecologist, and Jenna Churchill BSc (Hons), Assistant Ecologist.

3.3.17 The third Spring transect survey was completed on 20/05/2025 by Joe Allsop MSc BSc (Hons), Qualifying Member of CIEEM, Natural England Great Crested Newt Licence (2023-11512-CL08-GCN), Consultant Ecologist and Abigail Lawal, Seasonal Ecologist.

3.3.18 Survey conditions, and results can be found within Appendix 9B

Reptile Survey

3.3.19 A seven-visit, presence or likely absence survey was undertaken during suitable conditions in September 2024. Reptiles are active between March and October with optimal survey conditions during April and May or September. Surveys were undertaken during suitable weather conditions when the air temperature was between 9 - 18oC (Froglife, 1999).

3.3.20 Reptile refugia (1m x 1m) constructed from roofing felt were used to observe basking and sheltering reptiles. Refugia were laid at a density of between 5 and 10 per hectare of suitable habitat (Froglife, 1999).

3.3.21 One-hundred mats were laid on 13/08/2024 and were left to embed for a minimum period of two weeks, with a series of seven visits undertaken on: 02/09/2024, 04/09/2024, 06/09/2024,

10/09/2024, 13/09/2024, 16/09/2024, and 24/09/2024 by Emily Murchison BSc (Hons) MSc, Qualifying Member of CIEEM, Assistant Ecologist, Magdalena Chaborska BSc (Hons), Qualifying Member of CIEEM, Graduate Ecologist, Josh Bowler BSc (Hons), Graduate Ecologist, Esme Moss, Seasonal Ecologist and Becky Wilson, Season Ecologist.

3.3.22 Survey conditions, and a refugia map can be found within Appendix 9C.

Great Crested Newt Survey

3.3.23 Ten waterbodies were identified within the zone of influence. Five of the waterbodies identified for survey initially assessed via GCN Habitat Suitability Index (HSI) score for each of the waterbodies (Oldham et al, 2000). Access was not provided for five of the ten ponds and so surveys could not be undertaken.

3.3.24 The HSI is scored between 0 and 1 and can be interpreted as follows:

<0.5 = poor
0.5 – 0.59 = below average
0.6 – 0.69 = average
0.7 – 0.79 = good
>0.8 = excellent

3.3.25 A table detailing the HSI categories and individual pond scores can be found in Appendix 9D.

3.3.26 A minimum of 4 presence/absence surveys were undertaken on suitable waterbodies within the zone of influence in conditions as per Natural England guidelines; described in the Great Crested Newt Mitigation Guidelines, English Nature, (2001).

3.3.27 Five waterbodies (Ponds 1,3,6,7 and 9) were surveyed using the following survey methodologies:

- **Bottle Trapping.** This method involves setting bottle traps around the water body margin and leaving the traps overnight. Some studies indicate that bottle trapping is the most reliable method for detecting the presence of great crested newts and other amphibians, particularly when surveying turbid waterbodies, or waterbodies with dense macrophyte cover.

- **Egg Search.** This method involves searching both live and dead submerged vegetation for amphibian eggs. This is often a very effective method for detecting great crested newt presence.
- **Netting.** A professional Hand Net with Wooden Handle (250mm Wide Frame) is used to search for great crested newt adults/immature adults and larvae within the margins of the pond.
- **Torch Survey.** A Smartlite torch with 1 million candle power and 1000m beam is used to illuminate the ponds and allow the surveyor to record any great crested newts observed after sunset.
- **Terrestrial Seach.** A systematic search of suitable terrestrial habitat for GCN surrounding the pond, including any suitable natural or artificial refugia.

3.3.28 Five of the ten ponds could not be surveyed as access was not provided and the pond resided in private property.

3.3.29 Surveys were undertaken on 14/04/2025, 23/04/2025, 07/05/2025, and 20/05/2025 by Joe Allsop MSc BSc (Hons), A current Qualifying Member of CIEEM, Natural England Great Crested Newt Licence (2023-11512-CL08-GCN), Consultant Ecologist, Lloyd Wyatt BSc (Hons), AMIEnvSc, Consultant Ecologist, Sarah Jennison BSc (Hons), Consultant Ecologist, Abigale Lawal, Seasonal Ecologist and Matt Jones, Seasonal Ecologist.

3.3.30 Survey results can be found in Appendix 9a of this report.

Badger Survey

3.3.31 The badger survey was carried out in accordance with guidelines approved by the Chartered Institute of Ecology and Environmental Management, including: Best Practice Guidance - Badger Surveys, Scottish Natural Heritage (2003), Inverness Badger Survey 2003. Commissioned Report No. 096. and Surveying Badgers, The Mammal Society, Harris S, Cresswell P and Jefferies D (1989).

3.3.32 Legislation relating to Badgers can be found in Appendix 5 of this report.

3.3.33 Evidence of badger activity, including faeces, paths, scratching, snuffle holes, hair or footprints, was searched for along all the boundary features within the application site and within the 30m zone of influence where accessible.

Identification of Setts

3.3.34 Any holes discovered were categorised into sett types using the following criteria, quoted from Natural England guidance (NE, 2007):

- Main Setts usually appear well-used, well established and have a large number of holes. Big spoil heaps, often with piles of old bedding are located outside. Main setts tend to have well-worn paths between the sett and foraging areas, and between sett holes. They are generally considered to be breeding setts and are often in use all year round. A social group of badgers will only have one main sett within their territory.

- Annexe Setts are always close to a main sett and are usually connected by one or more obvious well-worn paths. They consist of several holes but are not necessarily in use the whole time, even if the main sett is very active. Should a second litter of cubs be born within the social group, they are likely to be raised within an annexe sett.

- Subsidiary Setts often these setts have very few holes, are usually at least 50m from a main sett and do not have an obvious path connecting them with another sett. Subsidiary setts are not continuously active.

- Outlying Setts usually comprising one or two holes with very little spoil outside (thus indicating that the tunnel system underground is not extensive), outlying setts have no obvious path connecting them with another sett and are used only sporadically.

3.3.35 Indication of the Level of Activity at each Sett:

- Well used sett entrances contain no debris or vegetation, are obviously regularly used and often show signs of having been recently excavated.

- Partially used setts are those with entrances not in regular use and which may have debris (twigs, leaves, moss etc) around the entrance. However, they could potentially be used regularly in the future with minimal clearance necessary.

- Disused setts show signs of not having been in use for a considerable period of time and would not be used again without extensive clearance by a badger.

3.3.36 A single day-time walkover survey was undertaken on the 25th of July 2024 by Sarah Jennison BSc (Hons), Assistant Ecologist and Jenna Churchill BSc (Hons), Assistant Ecologist.

3.3.37 Survey conditions, and an activity map can be found within Appendix 11.

Water Vole Survey

3.3.38 A single survey was undertaken following guidance set out in Water Vole Conservation Handbook, 2nd Edition. A walkover of the accessible areas of the ditches within and adjacent to the site was undertaken to identify key parameters, identify suitable points for access, areas of likely presence and to check for water vole sightings.

3.3.39 The survey involved establishing sub-sections and recording observations on habitat type and suitability or otherwise, alongside searching for evidence of water vole presence. The habitat suitability was recorded following the method outlined buHarris et al 2009,

3.3.40 Field signs typically involve searching for burrows, latrines, feeding stations, mammal runs and footprints.

Habitat Suitability Assessment (HSA)

3.3.41 Harris et al. 2009 devised a method to assess the suitability of habitat for water voles. Under this approach the presence or absence of well-documented environmental features favoured by water voles is recorded, providing an indication of the habitat suitability on site. The resulting scores are categorised as follows:

- Less than 3 Unsuitable (no potential for enhancement)
- 3-5 Sub-optimal (potential for enhancement)
- Greater than 5 Optimal

3.3.42 The survey was undertaken on the 25th of July 2024 by Sarah Jennison BSc (Hons), Assistant Ecologist and Jenna Churchill BSc (Hons), Assistant Ecologist.

3.4 Biodiversity Impact Assessment

3.4.1 The biodiversity accounting system is underpinned by a metric that calculates the ecological value of both development impact and habitat restoration/creation.

3.4.2 The Statutory Biodiversity Metric is designed by DEFRA in consultation with a range of experts. The metric is based on an assessment of habitat type and condition. Habitat types are classified into three bands of 'distinctiveness' which are: priority habitats as defined in the NERC Act 2006 (high), semi-natural habitats (medium) and managed habitats, such as arable farmland (low).

3.4.3 Compensation arrangements must be like-for-like or better, i.e. the loss of semi-natural habitats can only be compensated for through the creation of priority or other semi-natural habitats, not through creation of lesser quality habitat. 'Trading up' options allow for the loss of poor-quality habitat, such as farmland, to be compensated for with the creation of high-quality habitat.

3.4.4 The ecological value of the habitat lost to development is a function of its distinctiveness, its condition and the area lost – scores are assigned to all three variables and multiplied together to arrive at the number of units lost. To compensate for a loss, the same or more units must then be delivered through habitat creation or restoration onsite or at another site that is going to be managed for wildlife (the 'receptor' site or compensation site).

3.4.5 The number of units delivered by the compensation receptor sites are also a function of the type, condition and area of the habitat being created or restored. But additionally, there are a further range of 'multipliers' applied to the creation of habitat because there are a number of risks to take account of – spatial, temporal and delivery.

3.4.6 Linear habitats (such as hedgerows) are measured separately to the rest of the site habitats and included within a separate section – hedge baseline and hedge creation. The aim is to achieve a 10% net-gain for hedgerow as well as for biodiversity units.

Mapping and Assessment

3.4.7 For the baseline calculations the habitats were mapped using the phase 1 map and condition assessed using the criteria outlined within the Statutory Biodiversity Metric habitat condition assessment sheets. The phase 1 habitats were translated into the UKHab classification system to input into the metric. The classification of habitats and conditions follow the outline in the DEFRA Technical Support document associated with the latest edition of the metric.

3.4.8 Habitats and hedges were mapped within QGIS software to allow area calculations. The Illustrative layout was overlayed and measured using the georeferencing tool. Polygons and lines used to measure existing habitat areas were classified by their proposed habitat type to provide reference.

Strategic significance

3.4.9 A desk study utilising publications within the local plan (LPA) as well as open-source data available from Multi Agency Geographic Information for the countryside (MAGIC) was searched to determine the strategic significance of the site.

3.5 Limitations

3.5.1 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. Due to seasonal constraints additional surveys will be required in 2025 to complete the suite of works.

3.5.2 The 30m zone of influence for badger could not be fully assessed in the southwestern corner of the site as it fell within private gardens. However, no evidence of badger activity was recorded in this area.

3.5.3 The initial assessment was undertaken outside of the optimal survey period for phase 1 survey. Certain habitat types such as cropland can be surveyed at any time of the year where the species that they comprise vary very little. It is confidently assessed that the habitat assessment of this site is representative of the flora year-round. Additionally, no further habitats were recorded during the phase 2 survey works carried out during the optimal survey window.

3.5.4 The reptile survey visit on the 2nd of September was conducted in suboptimal weather conditions, with a recorded temperature of 23 degrees. While this was above the optimal temperature range, they were the most suitable weather conditions able to survey during that time period. Additionally, the other visits were all undertaken during optimal conditions and no reptiles were found.

3.6 Report Lifespan

3.6.1 Given the transient nature of the subject, we would consider the survey results contained to be accurate for 18 months.

3.7 Evaluation Methodology

3.7.1 The site and protected and notable species within the zone of influence were classified into one of the following 6 groups (Table 2) following the Guidelines for Ecological Impact Assessment

(CIEEM, 2016), depending on the size, rarity, diversity and fragility for a species population. The evaluation also considers County and nationally prepared documents such as LBAP and Red Data books.

Ecological Impact Assessment

3.7.2 The Ecological impacts of a development were assessed using data collected from historic records and current field surveys to and were categorised following EcIA guidelines (CIEEM, 2016) as follows:

- Highlight Protected or notable species which could be impacted as part of the development (Section 5).
- Determine the severity of the impact and effect without specific mitigation measures (Section 6).
- Outline a mitigation strategy highlighting areas of potential environmental improvement, which upon implementation aims to avoid or reduce negative impacts and effects (Section 6).
- Assess the feasibility and likelihood of success of the mitigation strategy (Section 7).
- Assess the residual impact of the development assessing that the mitigation has been successfully implemented and all prescriptions have been implemented (Section 7).

Classifying the extent of impacts and effects

3.7.3 The extent of impacts and effects need to be described in an unambiguous, consistent manner. The direction of change 'Positive' or 'Negative' should be assessed in relation to the overall biodiversity outcome, and should consider the duration, timing and reversibility of the constraint and be classified into one of the following five categories:

Table 3: Description of the extent of impacts

Impact	Description
Positive (Significant)	Activity will create a beneficial effect over a long term, created a valued ecological feature
Positive (Not Significant)	Activity will create a beneficial effect without markedly improving the conservation status
Neutral	Effects or neutral or no net change will occur
Negative (Not Significant)	Negative effect without causing long-term irreversible damage

Impact	Description
Negative (Significant)	Significant Negative effect including loss or long-term irreversible damage to integrity or status of a valued ecological feature

Table 4: Definitions of each of the six evaluation brackets, indicating the importance of each habitat type and an example of their possible habitat status

Evaluation Value	Example of habitat or species
International	An internationally designated site or candidate site, including habitat or species included within Special Protection Areas (SPA) / Special Areas of Conservation (SAC), Ramsar Sites, listed under Annex 1 of the Habitats Directive.
National	Sites designated at UK level, e.g. Sites of Special Scientific Interest (SSSI), supporting species considered nationally threatened or rare. A regularly occurring regionally or county significant population/number of any nationally important species A feature identified as of critical importance within Section 41 of the NERC Act (2006).
Regional	Key Habitat type included within BAP. A regularly occurring, locally significant number of a regionally important species.
County	Designated sites, such as Sites of Biological Importance (SBIs) or viable habitat / species populations of value at a county level (LBAP).
District	District level designated sites, such as Local Wildlife Sites (LWS) or habitats / species populations of value at a district (Which have features qualifying for LWS status). Sites/features that are scarce within the district or which appreciably enrich the district habitat resource.
Local / Site	Habitats or species populations of value in a local (i.e. within ~ 5km of the site) context. Habitats of poor to moderate biological diversity e.g. established conifer plantations, species poor hedgerows and un-intensively managed grassland which supports species which are common to the local area and whose loss can be easily mitigated.

4 Site Context

4.1 Site Description

4.1.1 The application site can be found at SP 43223 96257, a parcel of arable land situated within Hinckley; Leicestershire within a rural landscape. The redline boundary is bound to the west by Ashby Road (A447) and a stretch of residential housing terminating with Hinckley and Bosworth Community Hospital forming the urban edge of Hinckley. The A47 carriageway lies approximately 90m south forming a barrier to terrestrial species dispersal from residential development associated with Hinckley town beyond. To the north and east arable farmland dominates the landscape interspersed with mature hedgerows, treelines and scattered trees generating connectivity for protected species for up to 1.5km east of the application boundary and fragmented connectivity to the North and Northwest.

4.2 Zone of Influence

4.2.1 The zone of influence is used to describe the geographic extent of potential impacts of a proposed development. This is determined by the type of development proposed in relation to individual species and described within each of the species assessments within section 5 of this report. Maps, aerial photographs, historic data records and field survey results were examined to assess the relationship of the location and its connection to the surrounding environment and habitats beyond the site boundaries.

Figure 1: OS map of the project site and surrounding area. Red line boundary depicts application site.

5 Baseline Ecological Conditions

5.1 Desk Study

Designated Sites

5.1.1 The site was subjected to a search for designated sites within a 2km radius of the site using data supplied by the Local Records Centre Leicester and Rutland Environmental Records Centre (LRERC) and the online desk-based resource MAGIC.

5.1.2 The data supplied by LRERC was received on the 19th September 2024. The search sixteen non-statutory sites within a 2km radius of the site (Appendix 8), the closest and most relevant are summarised in (Table 5).

5.1.3 A search of the online resource Magic Maps found no additional sites with Statutory designations within the 2km radius search with no designations recorded

Table 5: Summary of the closest and most relevant designated Sites within a 2km radius of the application site

Site Name	Grid Ref	Status	Reason for Designation	Distance from site
Non-statutory Sites				
Trees N of Normandy Way	SP421958	LWS (Candidate)	Five ash trees meeting LWS criteria.	682m W
Hinkley Playing Fields hedge 1	SP437955	LWS (Potential)	Species rich hedgerow extending 160m which could qualify as LWS.	746m SE
Little Pit Fishery	SP432952	LWS (Candidate)	Standing water habitat with potential to meet LWS criteria.	796m S
Barwell Grassland and hedgerows east of The Common	SP437969	LWS (Candidate)	This site comprises 5 hedgerows two mesotrophic grassland meadows and a veteran tree.	1032m NE
Burbage Common & Woods	SP446951	LWS (Notified)	Transitional mesotrophic/acid grassland, ancient semi-natural woodland, significant bird & amphibian assemblages.	1520m SE

Protected Species Assessment

5.1.4 Data supplied by LRERC included records of protected species (Appendix 7). Full data sets are available upon request.

Table 6: Summary of relevant protected and priority species records

Species	Grid Ref.	Distance from site	Additional Details
Mammals			
Noctule *(Nyctalus noctula)*	SP4296	0.8km	22 records within 2km of the project site, closest record 0.8km W.
Common Pipistrelle *(Pipistrellus pipistrellus)*	SP4296	0.8km	62 records within 2km of the project site, closest record located 0.8km W.
Leisler's Bat *(Nyctalus leisleri)*	SP4395	0.8km	8 records within 2km of the project site, closest record 0.8km S.
Soprano Pipistrelle *(Pipistrellus pygmaeus)*	SP4395	0.8km	62 records within 2km of the project site, closest record 0.8km S.
Brown Long-eared Bat *(Plecotus auritus)*	SP4395	0.8km	17 records within 2km of the project site, closest record 0.8km S.
Myotis Bat species	SP4295	0.9km	16 records of within 2km of the project site, closest record 0.9km SW.
Barbastelle *(Barbastella barbastellus)*	SP431950	1.1km	Two records detected on a sonogram bat detector closest record 1.1km S.
Natterer's Bat *(Myotis nattereri)*	SP4196	1.3km	Four records within 2km of the project site, closest record 1.3km W.
Water Vole *(Arvicola amphibius)*	SP443952	1.5km	Two records of water vole within Burbage Brook, closest record located 1.5km SE.
Serotine *(Eptesicus serotinus)*	SP449955	1.9km	Two records detected on a sonogram bat detector; closest record located 1.9km SE.
Otter *(Lutra lutra)*	SP4391296749	1km	Healthy looking otter recorded on a camera trap recorded 1km NE.
Birds			
Redwing (*Turdus iliacus*)	SP43839587	0.5km	13 records within 2km of the site the closest records was 0.5km SE
Fieldfare (*Turdus pilaris*)	SP445969	1.5km	8 records within 2km of the project site, closest record 1.5km NE.
Brambling (*Fringilla montifringilla*)	SP447951	1.6km	2 records within 2km of the project site, closest record 1.6km SE.
Herpetofauna			
Grass Snake *(Natrix Helvetica)*	SP435964	0.5km	5 records within 2km of the project site, closest record located 0.5km NE.
Great Crested newt *(Triturus cristatus)*	SP4325095230	0.9km	Three records within 2km of the project site including records of breeding ponds 0.9km S from site.
Smooth Newt *(Lissotriton vulgaris)*	SP440957	0.9km	Six records within 2km of the project site, closest record 0.9km E of the site.

Species	Grid Ref.	Distance from site	Additional Details
Slow worm *(Anguis fragilis)*	SP450957	1.9km	One record of an individual within 2km of the project site, closest record located 1.9km E of the site.

5.1.5 MAGIC Maps revealed a single granted European Protected Species (EPS) Licence within 2km of the site to allow the destruction of a great crested newt resting place in 2017, 1.5km to the southeast.

Priority Habitats

5.1.6 No areas of priority habitat were identified within or immediately adjacent to the application site. The closest area of priority habitat was an area of deciduous woodland, located approximately 180m northeast of the site.

Evaluation

5.1.7 Nearby designated sites are considered to have 'District value' following evaluation (Table 4). Direct impacts on nearby designated sites as a result of the proposed development are considered unlikely. The development proposals are contained within the redline boundary with the closest designated site (Trees N of Normandy way) located 682m west. Given the distance from the site, it is considered that the development will have no adverse impacts on the integrity of this designation.

5.1.8 The site is situated within the Impact Risk Zone (IRZ) for Burbage Wood and Aston Firs Site of Special Scientific Interest (SSSI), located 2.4km southeast and Kendall's Meadow SSSI 4km northwest. However, the proposed development does not meet the criteria for the IRZ, as such no further action is required. It is considered that direct impacts on nearby designated sites as a result of the proposed development are unlikely.

5.2 Extended Phase One Habitat Survey

5.2.1 A Phase 1 Habitat Survey Map is presented in Appendix 1 of this report. The habitat descriptions below should be read in conjunction with the Phase 1 plan and the Target Notes in Appendix 2.

5.2.2 A plant species list for those plants identified during the field survey is provided in the Target notes within Appendix 2.

5.2.3 Table 7 provides a list of habitat types present on site along with their inclusion (or otherwise) as a National and / or Local Habitat of Principle Importance (HPI) (Previously referred to as Biodiversity Action Plan (BAP)).

Table 7: JNCC Habitat Types found on site and inclusion within UK BAP / HPI

Habitat Type	N HPI	L HPI	N/A
Poor semi-improved grassland			✓
Arable			✓
Dense scrub			✓
Native hedgerows	✓	✓	
Scattered trees			✓

Poor semi-Improved Grassland

5.2.4 Species poor semi-improved grassland pertaining 0.08 ha was recorded in the centre of the site, west of hedgerow H2 and around the base of T8 (Figure 2). The sward height was approximately 15cm and was unmanaged. Species included abundant Yorkshire fog (*Holcus lanatus*), annual meadow grass (*Poa annua*), false oat grass (*Arrhenatherum elatius*), perennial rye grass (*Lolium perenne*) and common nettle (*Urtica dioica*). Frequent *Rumex sp.*, cow parsley (*Anthriscus sylvestris*), and white clover (*Trifolium repens*), with occasional hogweed (*Heracleum sphondylium*), spear thistle (*Cirsium vulgare*), ragwort (*Jacobaea vulgaris*) and bramble (*Rubus fruticosus*).

Arable

5.2.5 Cultivated arable land dominated the site, covering approximately 5.51 ha across two fields (Figure 3). These fields were fallow at the time of the survey, with some occasion colonising species from the neighbouring grassland and hedgerow understory, such a perennial ryegrass, false oat grass and common nettle.

Dense scrub

5.2.6 The site supported a strip of scrub located to the southwestern boundary of the site, adjacent to hedgerow H3 (Figure 4). The scrub was dominated by bramble, featuring frequent, common nettle, spear thistle and ragwort. Young hawthorn (*Crataegus monogyna*) and blackthorn (*Prunus spinosa*) saplings were also present within the scrub.

Figure 2: Poor semi-improved grassland situated in the centre of the site.

Figure 3: Arable fields dominating the site, fallow at the time of baseline prior to cultivation

Figure 4: Scrub situated at the western boundary of the site.

Hedgerows

5.2.7 A series of four hedgerows were recorded on site bordering the western boundaries and running between the two arable fields. The understorey of these hedgerow was broadly similar and supported a species composition of ivy (*Hedera helix*), willow herb (*Epilobium sp.*), dog's mercury (*Mercurialis perennis*), common nettle, perennial rye grass and false oat grass. The locations of the hedgerow in Table 9 can be viewed in the Phase 1 Habitat Plan in Appendix 1.

Table 8: Description of hedgerows on site

Hedge Number	Type	Dimensions (Approx.) H x W x L	Description	Likely to Qualify*
H1	Native - Species Poor	1.5m x 2m x 260m	Dominated by blackthorn with occasional field maple (*Acer campestre*) and alder (*Alnus glutinosa*) Evidence of historic management through flailing, no sign of recent management. Provides western boundary feature.	No
H2	Native - Species Poor	2m x 2m x 140m	Dominated by hawthorn with abundant blackthorn, occasional field maple and elder (*Sambucus nigra*) Evidence of historic management through flailing, no	No

Hedge Number	Type	Dimensions (Approx.) H x W x L	Description	Likely to Qualify*
			sign of recent management. Provides a boundary between the two arable fields.	
H3 / H4	Native - Species Poor	3.5m x 2m x 60m	Dominated by hawthorn with abundant blackthorn and occasional holly (*Ilex aquifolium*), privet (*Ligustrum sp.*) and lilac (*Syringa sp.*) (*Sambucus nigra*). Formed a boundary between the site and the residential gardens to the southeast.	No
H7	Non-Native – Species Poor	4.5m x 2m x 70m	Dominated by cherry laurel (*Prunus laurocerasus*) unmanaged and forming the sites southern boundary.	No
H8	Native - Species Poor	3m x 2m x 147m	Dominated by hawthorn with abundant blackthorn, occasional field maple and elder (*Sambucus nigra*) Evidence of historic management through flailing, no sign of recent management. Provides a boundary between the site and the arable fields to the north.	No

Figure 5: Hedgerow H1 located on the western boundary of the site.

Scattered Trees

5.2.8 A large mature English oak (*Quercus robur*) was recorded within the poor semi-improved grassland in the centre of the site and adjacent to hedgerow H2. This tree is referred to as T8 in this report and is located at grid reference: SP 43124 96085. An additional mature oak was present on the northern boundary (T9) at grid reference: SP 43168 96137.

Invasive Weeds Assessment

5.2.9 An assessment of the site was made to establish the potential presence of invasive species included on schedule 9 of the Wildlife and Countryside Act 1981 (as amended). Stands of Horsetail (*Equisetum arvense*) were widespread and present across the site. Although not listed on Schedule 9 of the UK Wildlife Countryside Act, horsetail is invasive in nature with the potential to damage hard landscaping features and outcompete desirable plant assemblages and therefore care should be taken to prevent its spread, and to reduce cover onsite.

5.3 Existing Biodiversity Value

5.3.1 The application site contains habitats ranging from very low to medium distinctiveness as categorised within statutory biodiversity metric. Details of distinctiveness, condition and reason for condition are detailed within Table 10

Table 9: Summary of condition assessment for habitat and hedgerow baselines.

	Distinctiveness	Condition	Reason
Habitats			
Modified Grassland	Low	Poor	Fails essential criterion A, cannot achieve higher than poor condition.
Cropland	Low	N/A	Condition assessment is not applicable to this habitat type.
Mixed Scrub	Medium	Poor	Fails criteria A, B and E.
Rural Trees	Medium	Good	Passes all six criteria
Hedgerows			
Native hedgerow (H1)	Low	Good	Passes criteria A1, A2, B1, B2, C1 and D1
Native hedgerow (H2)	Low	Good	Passes criteria A1, A2, B1, B2, C1 and D1
Native hedgerow (H3/H4)	Low	Good	Passes criteria A1, A2, B1, B2, C1 and D1
Non-native ornamental hedgerow (H7)	Very low	Poor	Can only achieve poor condition within the biodiversity metric

	Distinctiveness	Condition	Reason
Habitats			
Native hedgerow (H8)	Low	Poor	Passes criteria A1, A2, D1 and D2

5.3.2 The total area of the site is 5.53ha. The existing habitats within the application boundary were valued at 11.83 'Biodiversity Units' and 3.58 'Hedgerow Units'.

Site Evaluation

5.3.3 The habitats on site have been evaluated as being of low ecological value in relation to the local surroundings and assessed to have up to 'District' value in a regional context (Table 3). The site was dominated by arable cropland which is frequently occurring in the wider locality and offers limited biodiversity value, given the and limited species diversity and intensive management style.

5.3.4 The hedgerows on site provided value to terrestrial species and connectivity with wider landscape. All native hedgerows are UK Biodiversity Action Plan (BAP) priority habitats and are Habitats of Principal Importance under the provisions of the NERC Act 2006.

5.4 Protected and Notable Species

Notable Plants

5.4.1 The zone of Influence for botanical species was determined to include habitat parcels within or adjacent to the application boundary of the site. The PEA survey was undertaken outside of the optimal botanical survey period; however, given the types of habitats present on site it is confidently considered that the habitat assessment of this site is representative of the flora year-round.

Evaluation

5.4.2 No notable plants were recorded within the application site and as such, this ecological receptor is not considered further within this report.

Breeding Birds

5.4.3 The zone of influence for breeding birds pertains to the suitable habitats located within the application site and immediately adjacent to its boundary. The extensive areas of arable in

combination with occasional scattered trees and hedgerows within the zone of influence supported suitable nesting and foraging habitat for a wide range of bird species.

5.4.4 During the PEA eight bird species were recorded either foraging or commuting over the site. These included Blackbird (*Turdus merula*), Carrion crow (*Corvus corone*), Robin (*Erithacus rubecula*), Woodpigeon (*Columba palumbus*), Wren (*Troglodytes troglodytes*), Blue tit (*Cyanistes caeruleus*), Pheasant (*Phasianus colchicus*) and Skylark (*Alauda arvensis*)

5.4.5 Over the course of the six counts, a total of 24 bird species were recorded within the application boundary (Table 10). Of these, nine species were considered notable, owing to their BAP or BoCC status, including dunnock (*Prunella modularis*), greenfinch (*Carduelis chloris*), house sparrow (*Passer domesticus*), song thrush (*Turdus philomelos*), whitethroat (common) (*Curruca communis*), swift (*Apus apus*), woodpigeon (*Columba palumbus*), wren (*Troglodytes troglodytes*), and yellowhammer (*Emberiza citronella*).

5.4.6 A total of one 'Confirmed' breeding species namely skylark was recorded within the site boundary. A total of four 'Probable' breeding species namely, blackbird, dunnock, robin, and yellowhammer. Five 'Possible' breeding species including blackcap, greenfinch, great tit, common whitethroat and wren. Fourteen species were classified as non-breeders onsite.

5.4.7 Bird activity was primarily focused within the hedgerows within the site boundary and around the periphery of the site. Notable species such as dunnock, greenfinch, house sparrow, common whitethroat and yellowhammer were all found to be associated with hedgerows across the site on multiple occasions. The hedgerows that surrounded the site were short (circa 1.2m tall), densely vegetated and has associated ditches, which provided good refuge and nesting suitability for yellowhammer and dunnock. Skylarks were seen singing in the southern arable field during V1, V3, V4 and V6 of the survey, denoted to a maximum of two individuals per survey across the site. Within the neighbouring fields to the north and east further singing skylarks were seen holding territories and breeding behaviour such as courting and individuals chasing one another was also observed in the northern most field. House sparrows were seen calling throughout the survey effort along the western boundary, with the hedgerow providing some suitable refuge, however they were seen frequently commuting between the site and offsite private gardens. Common bird species such as blue tit, great tit, and blackbird were seen calling and foraging in hedgerows across the site, primarily used for maintaining territories over the breeding season.

Incidental Sightings

5.4.8 Linnet (*Linaria cannabina*), song thrush (*Turdus philomelos*) and yellow wagtail (*Motacilia flava*) were all recorded within the adjacent offsite habitat. However, no presence was observed onsite. These have been included for fullness of report as suitable habitats are present within the site boundary (Table 11).

Table 10: Recorded species located within or adjacent to the application site and their and associated status during the preliminary appraisal and subsequent breeding bird survey.

BTO Codes	Species	Scientific Name	Breeding Status					UK BAP	
B.	Blackbird	*Turdus merula*	Probable						
BC	Blackcap	*Sylvia atricapilla*	Possible						
BT	Blue tit	*Cyanistes caeruleus*	Not Breeding						
C.	Carrion Crow	*Corvus corone*	Not Breeding						
CC	Chiffchaff	*Phylloscopus collybita*	Not Breeding						
CH	Chaffinch	*Fringilla coelebs*	Not Breeding						
D.	Dunnock	*Prunella modularis*	Probable					✓	
GO	Goldfinch	*Chloris carduelis*	Not Breeding						
GR	Greenfinch	*Chloris chloris*	Possible						
GT	Great tit	*Parus major*	Possible						
HS	House sparrow	*Passer domesticus*	Not Breeding					✓	
J.	Jay	*Curruca glandularis*	Not Breeding						
JD	Jackdaw	*Corvus monedula*	Not Breeding						
LW	Lesser Whitethroat	*Curruca curruca*	Not Breeding						
MG	Magpie	*Pica pica*	Not Breeding						
PH	Pheasant	*Phasianus colchicus*	Not Breeding	*Introduced (Not Listed)*					
R.	Robin	*Erithacus rubecula*	Probable						

BTO Codes	Species	Scientific Name	Breeding Status					UK BAP	
S.	Skylark	*Alauda arvensis*	Probable					✓	
SL	Swallow	*Hirundo rustica*	Not breeding						
SI	Swift	*Apus apus*	Not breeding						✓
WH	Whitethroat (Common)	*Curruca communis*	Possible						
WP	Woodpigeon	*Columbus palumbo*	Not Breeding						
WR	Wren	*Troglodytes troglodytes*	Possible						
Y.	Yellowhammer	*Citronella emberiza*	Probable					✓	

Table 11: Recorded species located within the wider ownership boundary during the breeding bird survey but were not observed within the site boundary across the six visits.

BTO Codes	Species	Scientific Name	Breeding Status					UK BAP	
YW	Yellow Wagtail	*Motacilia flava*	Not Breeding					✓	
ST	Song Thrush	*Turdus philomelos*	Possible					✓	
LI	Linnet	*Linaria cannabina*	Possible					✓	

Evaluation

5.4.9 The site has been assessed against relevant Leicestershire Species Local Wildlife Selection Criteria Sites for birds:

'Important, assemblages of breeding bird species occur in a limited number of habitats in Leicester, Leicestershire and Rutland. Scores have been assigned as follows to each species according to their estimated populations according to the Leicestershire Red Data Book of birds: 1= 10,00 pairs / 2= 1,001 – 10,000 pairs / 3= 101 -1,000 pairs / 4= 11 – 100 pairs / 5 = 1 – 10 pairs / 6 less than annual. '

5.4.10 The site was considered to have 'Site' value to wintering birds and did '*not qualify*' to be selected as a Local Wildlife Site (LWS) as per the above criteria. While, not uncommon within the wider landscape predominantly immediately north and east, the vast areas of open arable land. The site has also been assessed to determine if any species onsite are located within the Local Biodiversity Action Plan for Leicester, Leicestershire and Rutland (LBAP - 2016 – 2026). No species present with the LBAP were noted onsite, other than a singular swift commuting over the site from east to west

5.4.11 The habitat assemblages on site which support hedgerows, extensive arable and some scattered trees were considered suitable to provide breeding habitat for a variety of species including those of conservation concern such as dunnock, yellowhammer and skylark. The sites suitability also pertains to the ecological connectivity to wider agricultural landscape.

Bats

5.4.12 Habitats within the application boundary were considered suitable for foraging and commuting bats. The zone of influence for bats is within the redline boundary and connective adjacent habitats. The data search returned 195 records of bat foraging and commuting activity, with the closest record located 0.8 km west of the site pertaining to common pipistrelle and noctule. The data search also highlighted records for, *Myotis sp.,* brown long-eared, natterer's bat, soprano pipistrelle, and barbastelle within 2km of the site.

Bat Tree Assessment

5.4.13 Mature and semi-mature trees were recorded within and adjacent to the application site. These trees were subsequently subjected to a ground level tree assessment, which concluded they provided 'Negligible' suitability for roosting bats based upon Bat Conservation Trust guidance (Appendix 5). Despite some of the trees being mature in nature, they did not support suitable cracks, fissures or holes to support roosting bats.

Foraging and Commuting Bats

5.4.14 The hedgerows, trees, scrub and grassland on site provide resources for foraging bats. Linear features such as the hedgerows provide connective habitat across the site and provide commuting pathways to the wider environment, including a network of mature hedgerows within the predominantly rural landscape to the east and west.

5.4.15 Following BCT guidance (Appendix 5), the site was assessed as providing 'Moderate' suitability for commuting and foraging bats,

5.4.16 Night-time Bat Walkover (NBW) surveys were carried out in Summer and Autumn 2024 with an additional Spring survey conducted in Spring 2025. Remote static monitoring was also conducted for four consecutive months July – October 2024 and in May - July during the spring season 2025.

5.4.17 The activity levels during the two walked transect surveys were low, pertaining to infrequent passes of individuals at points 1 and 2 on the western boundary (Appendix 9B), relating to a single species, common pipistrelle. The summer transect recorded commuting activity by common pipistrelles utilising the western boundary of the site between Points 1, 2 and 3 (Appendix 9B). The autumn transect recorded low activity across the site with only a single common pipistrelle recorded foraging between points 5 and 6 along the eastern boundary (Appendix 9B). The spring transect returned similar result to the previous autumn survey, with activity predominantly along the sites eastern boundary and exclusively pertaining to common pipistrelle. Additionally, the spring transect recorded small amounts of foraging activity around T8 in the centre of the site which supports the data collected by the remote detectors.

5.4.18 A total of twenty-five nights of SM4 remote bat detector data were analysed in total; five nights from each month between July and October, with an additional five night from May 2025. The remote detector was positioned along a prominent vegetative feature within hedgerow H2 through the centre of the site at grid reference: SP 43153 96106, which will be altered to facilitate the development. It should be highlighted here that no notable bat activity was recorded along this feature during the walked transect surveys.

5.4.19 Activity was variable between each night recorded by the remote detector, but the following trends were observed.

5.4.20 The activity recorded by the SM4s varied across the season; the greatest number of calls were in September, with 1956 registrations, whilst October observed the lowest number of calls, with 15 registrations recorded.

5.4.21 High levels of common pipistrelle activity recorded between June and September the short time intervals between recorded calls relate to frequent extended foraging activity in the area

around H1 and the adjacent grassland around the large mature oak tree (T8). Similar activity was recorded for soprano pipistrelle and myotis species, although in fewer numbers.

5.4.22 Despite the high numbers of echolocation calls recorded by the SM4s, the dusk walked transect surveys revealed very low numbers of individual bats were recorded foraging and/or commuting at any one time, suggesting that the high activity levels recorded on the SMZC relate to activity, where smaller numbers of individuals are circling, particularly along the central hedgerow (Appendix 9B). The data collected from the SM4s remote detectors differs from the findings of the summer and autumn transect surveys, revealing a higher level of activity around the central hedgerow than observed on the transects. However, this activity was also recorded in the spring transect.

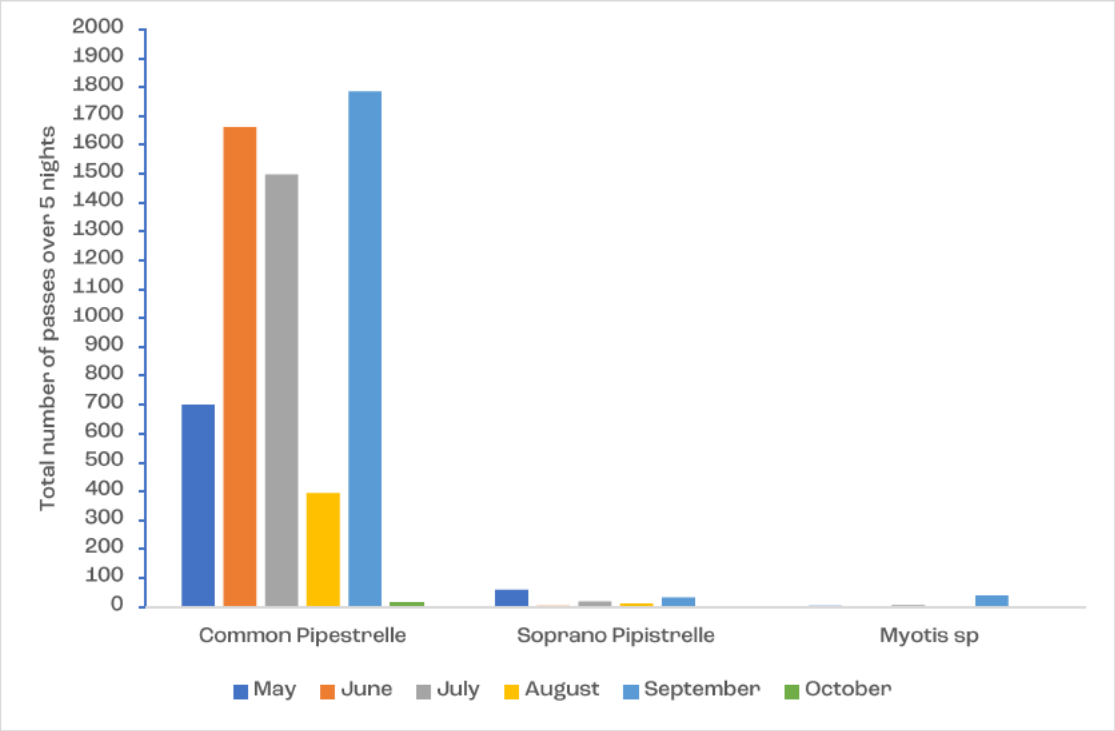


Figure 6: Bat calls recorded by SM4s Remote detector located within the central boundary.

Evaluation

5.4.23 The site has been assessed as being of Site value for roosting bats following the ground level tree assessment. The foraging and commuting habitat within the application site was assessed to be of Local Value following assessment (Wray et al 2010).

Amphibians

5.4.24 The zone of influence for great crested newts (*Triturus cristatus*) and other amphibians was determined following the desk study. A radius of 500 metres was searched for the presence of suitable waterbodies to support amphibians using 4 different methods (OS Mapping via Pro Map, Google Earth Pro, Google Maps and an On-Site Walkover). The desk study showed records of GCN within 750m of the application site but did not reveal any GCN records for ponds within 500m of the site.

5.4.25 There were no ponds within the application boundary, however the site supported suitable terrestrial habitat for this species due to the presence of field margins as well as hedgerows and scrub providing suitable cover. Ten ponds were present within the zone of influence (Figure 7).

5.4.26 These ponds were all located outside of the site boundary and within private property. Contact was attempted with the associated landowners with permission granted to Ponds P1, P3, P6, P7 and P9. These ponds were assessed and assigned a GCN Habitat Suitability Index (HSI) score (Oldham et al, 2000) displayed within Table 11.

5.4.27 Further survey work was undertaken at five of the identified Ponds (P1, P3, P6, P7, and P9). Pond 7 was found to be dry on all four survey visits; Pond 3 was dry on three of the four visits and pond 9 dry on two of the four visits.

5.4.28 Although not a target species, incidental records of common toad (*Bufo bufo*), a priority species under Section 41 of The Natural Environment and Rural Communities (NERC) Act 2006 were recorded during the suite of reptile surveys, with a peak count of 1 individual recorded on 02/09/2024 and 06/09/2024.

Table 12: Pond Locations and Suitability for Great Crested Newts.

Pond No.	Grid Ref.	Habitat Suitability Index Score	Distance from Site
1	SP 43287 96683	Average – 0.64	430m N
2	SP 43332 96654	Within private land – Access not granted	430m N
3	SP 43632 96426	Poor – 0.38	525m NE
4	SP43699613	Within private land – Access not granted	383m E

Pond No.	Grid Ref.	Habitat Suitability Index Score	Distance from Site
5	SP43509609	Within private land – Access not granted	176m E
6	SP43769594	Poor – 0.45	472m SE
7	SP43269586	Poor – 0.38	2m S
8	SP42959613	Within private land – Access not granted	83m W
9	SP42979634	Poor – 0.37	79m NW
10	SP42779655	Within private land – Access not granted	366m NW

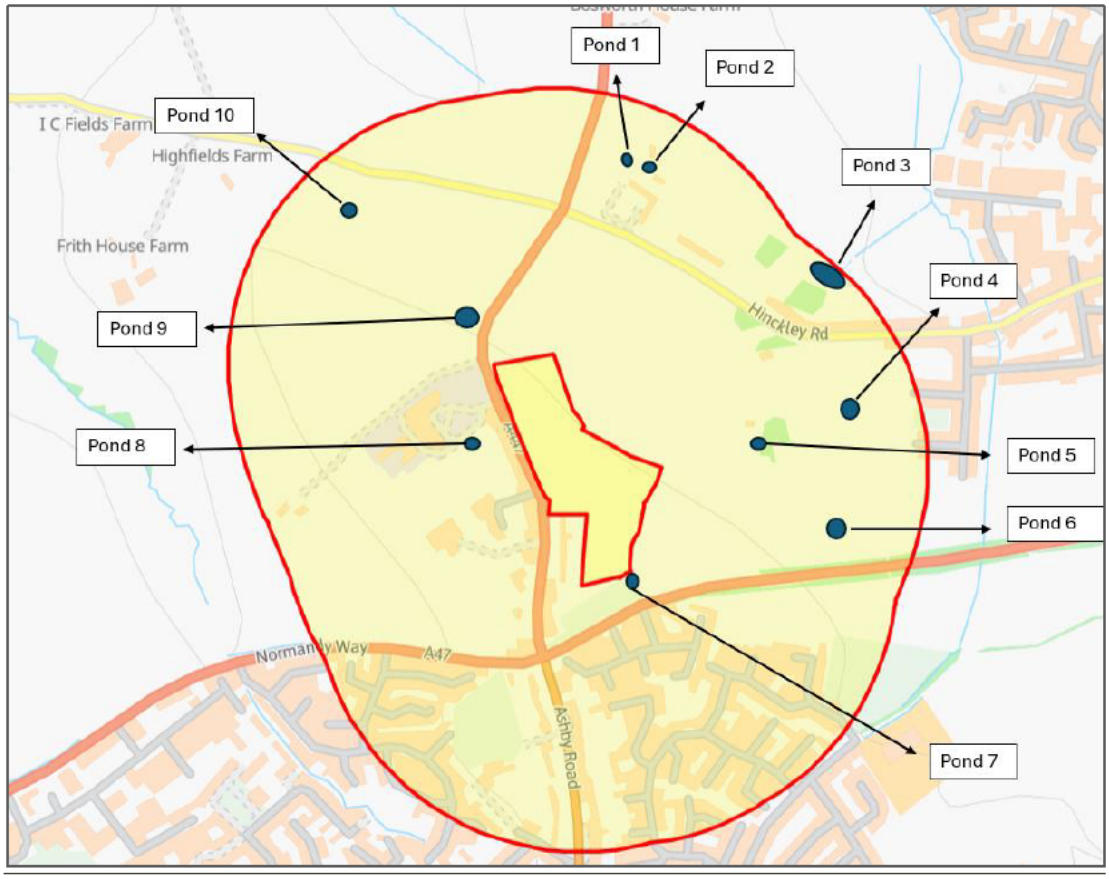


Figure 7: Map depicting ponds within 500m of the application boundary

5.4.29 None of the ponds surveyed were found to support breeding GCN during the survey visits. However, pond 1 and pond 6 both, supported small populations of smooth newts (*Lissotriton vulgaris*)

5.4.30 For full results, weather conditions at the time of survey, pond descriptions and HSI calculations please consult Appendix 9a

Evaluation

5.4.31 The site is considered to have 'Local' value for amphibians, with common toad present on site, but great crested newts confirmed as absent from nearby waterbodies surveyed. Additionally smooth newt were recorded as present within waterbodies within the zone of influence.

Reptiles

5.4.32 The zone of influence for reptiles was within the site and 500metres of connective habitat. The variable sward structure of the grassland margin, scattered trees and hedgerows provided shelter to support reptiles. In addition, the site was well connected to the surrounding landscape by hedgerows and ditches, particularly to the west and the north.

5.4.33 Although no evidence of reptiles was found onsite at the time of the PEA, the data search returned records of grass snake (*Natrix helvetica*) within 2km of the site with the closest 0.5km northeast. The extensive and variable habitats onsite had the ability to support reptile populations, particularly grass snake and slow-worm.

5.4.34 The reptile survey showed no evidence to suggest that there was a permanent population of reptiles with suitable habitat patches onsite (Table 13).

Table 13: Results of the seven visits undertaken during September 2024 (Refugia Locations can be found within Appendix 9C).

Survey Date / Time	Temp °C	Cloud Cover	Humidity	Wind Speed	Findings
02/09/2024	23	7	70%	BF2	No Reptiles - 1 common toad
04/09/2024	13	4	80%	BF2	No Reptiles
06/09/2024	17	4	92%	BF1	No Reptiles - 1 common toad
10/09/2024	16	2	73%	BF1	No Reptiles
13/09/2024	8	2	89%	BF1	No Reptiles
16/09/2024	14	0	89%	BF1	No Reptiles
24/09/2024	13	4	89%	BF1	No Reptiles

Evaluation

5.4.35 The optimal habitat on site provides 'Site Value' for this protected species group, following evaluation criteria (Table 2).

Badger

5.4.36 The zone of influence relating to badgers was considered to be within the application site and 30m of the immediate connective habitat. Records relating to certain protected species including badger sett locations are sensitive in nature, and due to the risk of public interference are kept confidential.

5.4.37 Further detail on the extent of the findings of badger activity within and adjacent to the site boundary are presented in confidential Appendix 11.

Water Vole

5.4.38 The zone of influence was estimated to be 30 metres to the west of the application boundary. The desk study highlighted two records of this species within 2km of the site, closest being 1.5km southwest from 2002.

5.4.39 A systematic search of the ditches within the 30m zone of influence found no signs of recent water vole activity such as latrines, runways, or feeding remains.

5.4.40 A Habitat Suitability Assessment (HSA) following Harris et al 2009 was undertaken (Appendix 9C) which attributed a suitability score of 0 for all four ditches assessed. The ditches were uniform in terms of habitat suitability, with all ditches recorded as dry during the assessment and lacking steep banks suitable for burrowing due to the substrate being highly compacted, emphasised by intense agricultural practices occurring within the adjacent arable fields. The bankside vegetation was limited, offering a lack of year-round food availability for the species and nest building opportunities indicating that the ditches are unlikely to support resident water vole populations

Evaluation

5.4.41 No evidence to suggest that water vole will utilise waterbodies within the zone of influence, as such this ecological receptor is not considered a constraint to the application.

Mammal Species of Principle Importance

5.4.42 The NERC Act 2006, Section 41 highlights 17 species of principle importance within England. Although these species were not surveyed directly as a result of their distribution and habitat preferences, evidence for activity by these species was searched for during the Phase 1 habitat and Phase 2 protected species surveys.

5.4.43 The zone of influence was considered to be within ecological connective habitat along the boundaries of the site, within 30 metres of the boundary.

5.4.44 Common pipistrelle were found to be commuting and foraging on site, predominately along the hedgerow defining the western and central boundaries (Appendix 9B).

5.4.45 The site also offered habitat capable of supporting foraging and commuting West European hedgehog, namely areas the hedgerows defining the boundaries as well areas of scrub and semi-improved grassland. However, no evidence of activity was found during the initial PEA or the subsequent phase two surveys.

Evaluation

5.4.46 An evaluation of common pipistrelle distribution on site can be found within Section 5.3.3. The habitats considered suitable for foraging. Overall, the habitats within the application boundary offered 'Local' value to this species group.

6 Assessment of effects and mitigation measures

6.1 The proposed development

6.1.1 The site is the subject of an outline application for residential development with all matters reserved apart from the main vehicular access from Ashby Road. An illustrative layout is provided in Appendix 6 of this report, which shows development blocks for dwellings and gardens and also areas of open space/landscaping.

6.1.2 The illustrative layout suggests that most of the land will be cleared to facilitate site development and landscaping. The hedgerows which border the site will remain intact and will be unaffected by the development, except for hedgerows H1 and H2 which will have sections removed to allow access and allow for a new footway.

6.2 Potential Impacts to habitats and notable species on site

6.2.1 Where evaluations within Section 5 have highlighted potential impacts to protected and notable species or habitats further assessment has been made to quantify the effect of the potential constraints. Plants, roosting bats and water vole are not considered further within this section as they not considered to be a constraint to the application.

Designated sites

6.2.2 The site lies within the Impact Risk Zones (IRZ) for Burbage Wood and Aston Firs SSSI, located 2.4km southeast and Kendall's Meadow SSSI 4km northwest, however, the proposed development does not meet the criteria for the IRZ, as such no further action is required.

6.2.3 The proposed development will be contained within the site boundary which is dominated by low value locally frequent habitats that are regularly managed. As such, it is considered unlikely that local statutory designated sites (all positioned over 1km for the site) will be directly impacted by the proposals. The five LWS highlighted on the data search are at distances greater than 500m with no distinct continuous connective habitat present to link them to the development site.

6.2.4 The development will see the construction of new residential properties, which could lead to increased recreational pressures on local designations and areas of green space. Without

mitigation, the development would present an unlikely Negative (Not Significant) effect to the local non-statutory designated sites in close proximity to the application boundary.

Mitigation Measures

6.2.5 No mitigation measures are required for designated sites, as both direct and indirect impacts are not anticipated to the designated sites within 2km.

Habitats

6.2.6 The hedgerows around the periphery of the site, and importantly the native hedgerow running central through the site are to be retained by the development, with the exception of 12.5m of hedgerow H1 and 17m of hedgerow H2 that will be lost to provide access. However, significant ground clearance will be required within the application boundary to facilitate the new residential development, which will result in the loss of the arable land dominating the site. Whilst the majority of the remaining habitats onsite were considered to be of low value, habitats such as the native hedgerows hold value to local biodiversity. Given the scale of the proposed ground clearance within the application boundary, in the absence of mitigation, a Negative (Not Significant) effect on habitat condition within the site is anticipated.

Mitigation Measures

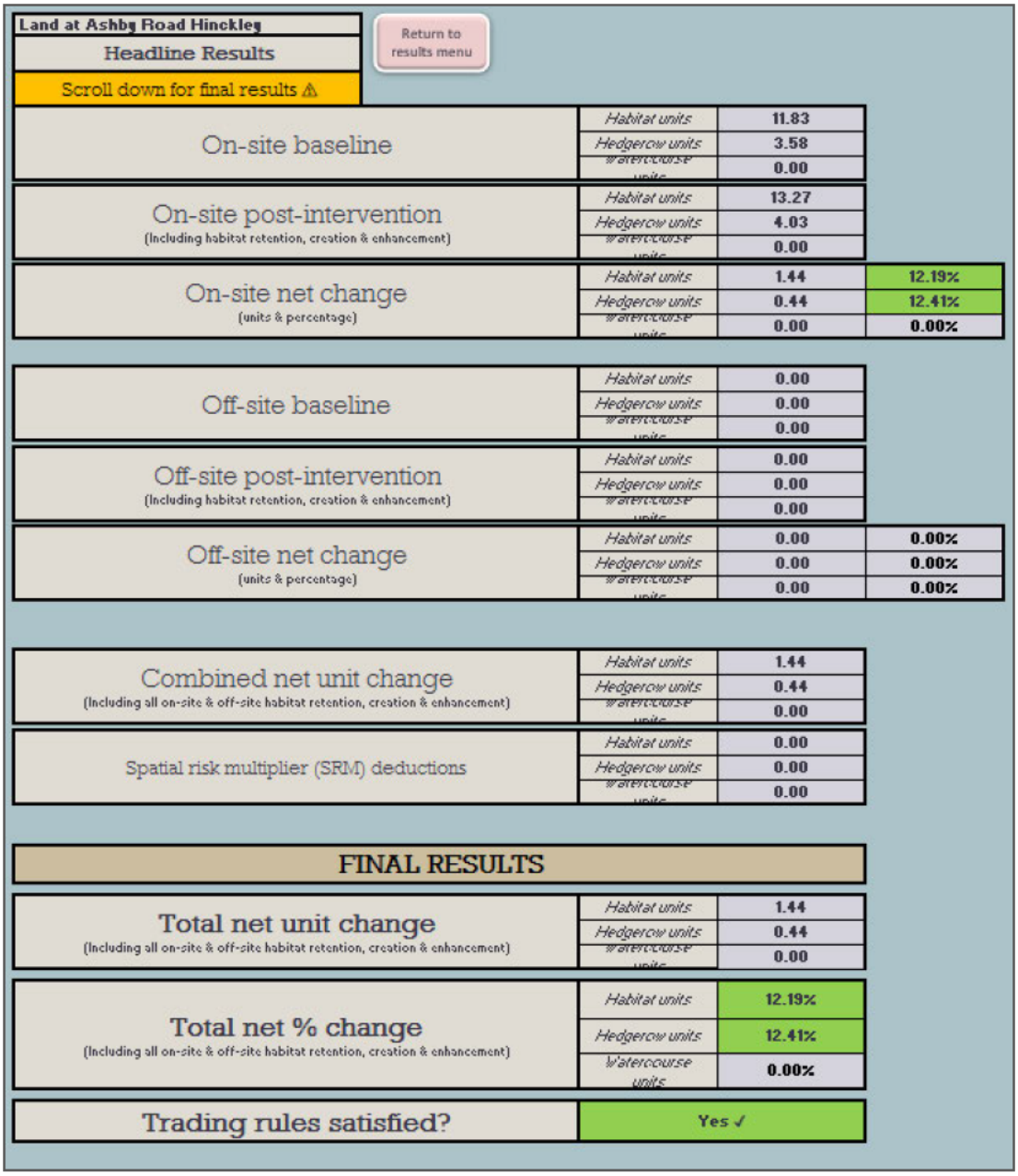
6.2.7 The illustrative layout includes proposals for open space creation to elevate the habitat quality from low value arable land to grassland habitats and is modelled to result in 13.27. 'Habitat Units', and 4.03 'Hedgerow Units', which is a net gain of +1.44 'Habitat Units' (+12.19%), and a gain of +0.44 'Hedgerow Units' (+12.41%).

6.2.8 A Construction Ecological Management Plan CEMP and Tree Protection Plan will be produced to safeguard the trees, hedgerows and ditches during construction.

6.2.9 The effect from site clearance is be expected to be short-term and reversible via the implementation of the landscape scheme supporting native planting within open spaces to support the targets for biodiversity net gain (see section 7). These habitats will be created and managed for the long-term benefits as outlined within a supporting Habitat Management and Monitoring Plan (See compensation section 7)

6.2.10 The area of grassland in the centre of the site around tree T8 will be enhanced from low distinctiveness 'Modified Grassland' in 'Poor' condition to medium distinctiveness 'Other Neutral Grassland' in 'Poor' condition. The area will be harrowed to a maximum depth of 10cm, and overseeded with a neutral grassland seed mix, such as Emorsgate EM3 (or similar approved). This grassland will be unlikely to achieve higher than poor due to disturbance, however it will be managed to have varied sward height, less than 20% cover of scrub, less than 5% cover of bracken and free of invasive species.

Figure 8: Headline Results from DEFRA metric



Land at Ashby Road Hinckley			
Headline Results	Return to results menu		
Scroll down for final results ⚠			
On-site baseline	Habitat units	11.83	
	Hedgerow units	3.58	
	Watercourse units	0.00	
On-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	13.27	
	Hedgerow units	4.03	
	Watercourse units	0.00	
On-site net change (units & percentage)	Habitat units	1.44	12.19%
	Hedgerow units	0.44	12.41%
	Watercourse units	0.00	0.00%
Off-site baseline	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site post-intervention (Including habitat retention, creation & enhancement)	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
Off-site net change (units & percentage)	Habitat units	0.00	0.00%
	Hedgerow units	0.00	0.00%
	Watercourse units	0.00	0.00%
Combined net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	1.44	
	Hedgerow units	0.44	
	Watercourse units	0.00	
Spatial risk multiplier (SRM) deductions	Habitat units	0.00	
	Hedgerow units	0.00	
	Watercourse units	0.00	
FINAL RESULTS			
Total net unit change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	1.44	
	Hedgerow units	0.44	
	Watercourse units	0.00	
Total net % change (Including all on-site & off-site habitat retention, creation & enhancement)	Habitat units	12.19%	
	Hedgerow units	12.41%	
	Watercourse units	0.00%	
Trading rules satisfied?	Yes ✓		

Birds

Breeding Birds

6.2.11 The areas of extensive arable, hedgerows, occasional scattered trees have been identified as being suitable for use by breeding birds. A Negative (Not significant) effect is anticipated as a result of the development through the loss of suitable nesting habitat across the site. The scope of these impacts and the required mitigation may increase pending further survey work. The impacts to ground nesting birds such as skylark are expected due to the presence of one territory within the site boundary. The surrounding landscape offers abundant alternative comparable nesting habitat. However, without mitigation site clearance has the potential for nest abandonment and death of individuals may occur.

Mitigation Measures

6.2.12 Given their protection, development must be sympathetic to the value of this habitat and potential impacts on breeding birds, their eggs, nests and young. The breeding bird season is generally accepted as being between March and September, works should be avoided during this period where possible, and developers will consider and implement the options (below) appropriate to their scheme to reduce the effect to Positive (Not significant):

- Undertake any vegetation clearance between the months of October and February where possible (Outside of the breeding season);
- Any vegetation proposed for removal between the months of March and September will be subjected to a search for active birds' nests 24 hours prior to commencement of works. This should confirm whether all or some clearance is achievable.
- In addition to a pre-works check the clearance of vegetation between the months of March and September will be supervised by a suitably qualified ecologist.
- Should bird nesting activity occur within the application site during any works then activity in that area will cease until the bird(s) have vacated the site (a minimum of 4 weeks). Such measures should be adhered to so as to prevent unnecessary disturbance to breeding birds or their young.

- Additional tree planting will occur across the site to provide increased nesting resource for common and opportunistic species. The hedgerow running through the centre of the site will be impacted due to the creation of a link road between the northern and southern residential. To mitigate for the loss of hedgerow and connectivity onsite, two species rich hedgerows will be created that will provide an overall net gain in hedgerow units and therefore improve nesting resource once established.

- Due to the presence of a skylark territory within the site boundary, it is proposed to mitigate for the loss of foraging and suitable nesting habitat within the arable land parcels. A singular 'skylark plot' is created within the neighbouring arable field as per the AHW4: Skylark Plots – Gov.uk Guidance. This is achieved by leaving a 4m x 4m undrilled section of arable land minimum of 16m^2. This provision needs to be created within a 5ha field not bound by hedgerows or woodland – located between tramlines and away from telegraph poles and pylons. This will provide a nesting and wintering foraging resource for skylark that will be displaced as part of the proposed works. In addition to this grassland habitat is being created along the north-eastern boundary that will provide invertebrate rich areas that will provide additional foraging resource for skylark post development. The exact location of this can be determined following the receipt of the final plans and will be secured under a planning condition.

6.2.13 The hedgerows bounding the site will be managed in accordance with the HMMP and biodiversity net gain target (Figure 8), in order to provide opportunities for nesting and breeding birds. Additionally, proposed areas of native planting, especially those in the north will provide compensatory foraging habitat in the form of mixed dense scrub.

Foraging and Commuting Bats

6.2.14 The illustrative layout suggests that the linear features located along the sites eastern boundaries are to be retained following the development, with 12.5m of hedgerow H1 and 17m of hedgerow H2 lost to provide access. However, this hedgerow loss is not expected to cause interruption of any existing commuting pathways as the activity recorded during the bat surveys was concentrated on the eastern boundary and around T8, both of which are being fully retained. Furthermore, the behaviours of foraging and commuting bats could be adversely affected by disturbance as a result of artificial lighting used during the construction phase as well as post construction lighting schemes. The potential indirect disturbance by light pollution

is considered a Probable Negative (Not significant) effect. The retention of existing foraging sites and commuting pathways on site and within the local area would be desirable. Given the high mobility of bat species the impacts associated with the development are not considered to be long-term.

Mitigation Measures

6.2.15 To mitigate effects to commuting and foraging bats to a 'Neutral' outcome, the physical characteristics and current management of the boundary features will be maintained and protected, notwithstanding the removal of sections of hedge to facilitate the access all retained hedges will be maintained and protected throughout the works via a CEMP.

6.2.16 The extent of disturbance to bat commuting lines should be reduced where possible by removing vegetation outside of the bat activity season and employing a sensitive lighting scheme during construction works that diverts light away from the boundary features. Post construction, artificial lighting should not be installed in close proximity to hedgerows, preventing long-term disturbance to commuting lines. If flood lighting is required, this should be directed away from boundary vegetation with overspill into dark corridors along the eastern and northern boundary should not exceed 1lux.

Amphibians

6.2.17 Great crested newts are considered absent from the surveyed ponds, and consequently absent from suitable terrestrial habitat recorded within the application boundary. However, it remains possible that the development may have an unlikely Negative (Not Significant) impact upon local amphibians common toad recorded on site and smooth newts in ponds within the zone of influence for the development.

Mitigation Measures

6.2.18 The scheme offers space to allow for continued connectivity for amphibians along the northern and eastern boundary and creation of habitat to the north of the site.

6.2.19 Common toad and smooth newt will be protected through works by following reasonable avoidance measures (RAMs) secured within a CEMP.

- Any tall grass/vegetation to be directionally strimmed in a two-phase process during the active season (March – October) to allow for any potential herptiles to disperse, the first cut to reduce the height to 30cm, then the second cut to 10-15cm.

- All materials to be stored off the ground (for example on pallets) to minimise the likelihood of herptiles accessing them for refugia.

- All spoil/waste materials to be removed from site at the end of each working day (or stored in a skip).

- If, during the works period, any GCN are found on site, works will temporarily cease, and a suitably qualified ecologist will be contacted for advice.

Reptiles

6.2.20 The reptile survey showed no evidence to suggest that there was a permanent population of reptiles onsite. However, given the suitability of the habitat matrix on site and records in the local area, it remains possible that reptiles may utilise the habitats within the application site on an intermittent basis. In the absence of mitigation, direct harm or injury could be sustained to individuals during ground clearance posing an Unlikely Negative (not significant). The loss of suitable habitat provides a Neutral (not significant) effect on the reptile population, because the effect is considered to be short term and reversible on site, and there is an abundance of suitable habitat within the immediate landscape.

Mitigation Measures

6.2.21 The following reasonable avoidance measures will be followed during the construction phase to prevent reptiles colonising any potential habitat incidentally created by spoil, open trenches or arisings.

- Any tall grass/ruderal vegetation to be directionally strimmed in a two-phase process during the active season (March – October) from south to north to allow for any potential herptiles to disperse into the suitable habitat beyond. The first cut to reduce the height to 30cm, then the second cut to 10-15cm.

- All materials to be stored off the ground (for example on pallets) to minimise the likelihood of herptiles accessing them for refugia.

- All spoil/waste materials to be removed from site at the end of each working day (or stored in a skip).

- If any evidence of reptiles is uncovered during development works, then works will cease and the advice of an ecologist sought.

Badgers

6.2.22 Under the Protection of Badgers Act 1992, in England and Wales it is an offence to wilfully kill, injure, disturb or take any badger, or intentionally or recklessly damage, destroy, or obstruct access to any part of a badger sett.

6.2.23

6.2.24

Mitigation measures

6.2.25 Prior to the onset of any construction or ground clearance activities, a walkover survey will be conducted within the zone of influence (the site and 30 metres perimeter of boundary) prior to the commencement of works to identify if badgers have become active within the proposed development.

In addition, the following appropriate precautions will be employed during construction works to prevent harm to this protected species.

- An ecological 'toolbox talk' will be provided to all site personnel prior to development works commencing. The 'toolbox talk' will include information pertaining to the ecology and

protection of badgers, a brief description of field signs and who to contact should badgers be encountered during development works.

- Any excavations left overnight are to be covered at the end of each working day, or include a means of escape, such as wood planks. In addition, any temporarily exposed open pipe systems are to be capped in such a way as to prevent badgers gaining access.

- Spoil heaps and brash piles will not be stored on site. These will be removed to prevent the opportunistic use by badgers.

- Should badgers or any evidence of badgers be encountered during the walkover or construction phase, all works will cease, and the advice of an ecologist sought.

Water Vole

6.2.26 The survey returned no evidence of water vole within the site, or the wider area surveyed. Water vole were found to be absent from the habitats within and immediately adjacent to the red line boundary, however, these ditches will be safe guarded through a CEMP.

Mammal Species of Principle Importance

6.2.27 The application site is likely to support foraging Western European Hedgehog particularly along the hedgerows defining the site eastern boundaries, as well as within the scrub and area of grassland. The ground clearance works necessary to prepare the site could result in injury or death of this species of principle importance, presenting a Negative (Not significant). The illustrative layout suggests that the hedgerows around the eastern periphery of the site are to be retained following the development. Reducing the likelihood of a significant effect to this species, however further mitigation should be implemented to safeguard this species.

Mitigation Measures

6.2.28 Habitat considered suitable for supporting Western European hedgehogs will be retained around the eastern periphery of the site and vegetative connectivity through the site will be maintained. If individuals are found during ground clearance works, works should cease until the individual has been moved into the northern boundary of the site. Once removed, the area will be searched, and works can recommence.

6.2.29 Reasonable Avoidance Measures (RAMs) will be secured within a CEMP to minimise the risks to individuals that may be utilising the site. RAMs will include:

- Any temporary exposed open pipes to be capped to prevent hedgehogs gaining access
- Undertake works during daylight hours
- Search areas of deadwood, brash, and discarded items by hand before removing
- If burning any cleared vegetation, carry out immediately after piping to prevent hedgehog moving in prior to burning
- Any exposed excavations to be left overnight are to be covered at the end of each working day, or included a means of escape for any fallen animals (e.g. scaffolding plank).

6.2.30 Clearance of potential hedgehog hibernacula such as log piles and brash piles, will be avoided between the months of November – February where possible, to minimise risk of harm to this priority species. If clearance is required, it will be done by hand only.

6.3 Residual effects of proposed development

6.3.1 The measures proposed within the above sections will mitigate all Negative effects to a level where the constraint is not considered significant or negative in terms of Ecological Impact Assessment. Upon completion there should be no adverse residual effects as a result of the development.

6.4 Cumulative effects

6.4.1 The mitigation and impact avoidance measures proposed for each ecological receptor should be secured through planning condition or obligation. At the time of writing there are no further consented developments within the local area according to Hinckley and Bosworth Borough Council, and the closest, EPS licence is over 1.5km southeast, so a cumulative effect is not predicted. Upon successful implementation of these measures the site will increase in value of in terms of local biodiversity.

7 Compensation, Enhancement and Monitoring

7.1 Compensation

7.1.1 Compensatory measures detailed below are required within this scheme of works, to avoid significant residual or cumulative effects as a result of the development. and to achieve a biodiversity net gain

7.2 Enhancement

7.2.1 In light of the National Planning Policy Framework (NPPF) that seeks net biodiversity gain within developments and the Natural Environment and Rural Communities (NERC) act that stipulates an authority's duty to conserve and enhance biodiversity the following enhancements are suggested (All enhancements should be overseen by an appropriate experienced ecologist):

Habitats

7.2.2 The construction of a Habitat Management and Monitoring Plan (HMMP) and Biodiversity Gain Plan (BGP) for the site will secure enhancements and appropriate landscape treatments to enhance biodiversity within areas of open space and achieve a net gain secured for 30 years through approved planning consent and condition.

Habitat Creation

7.2.3 The development will result in approximately 5.53ha of habitat creation (Appendix 10), Table 14 outlines habitat creation post development to achieve target conditions

Table 14: Area based habitat types and conditions to be created set out within the Statutory Biodiversity Metric

Habitat	Area (Ha)	Target condition	Units Delivered	Justification for Target Condition
Created Habitats				
Developed land; sealed surface	2.04	N/A	0.00	Proposed new residential dwellings, garages, parking, access roads and pavements, condition scoring not possible through the Statutory Biodiversity Metric.
Vegetated Garden'	0.788	N/A	1.50	Proposed residential gardens for the new dwellings, condition scoring not possible through the Statutory Biodiversity Metric.

Habitat	Area (Ha)	Target condition	Units Delivered	Justification for Target Condition
Modified Grassland	0.647	Poor	1.25	Proposed grassland verges and amenity areas across the site to support low maintenance grassland mix not expected to reach higher than poor due to disturbance and lack of species diversity among the swards. Also likely to be highly trafficked and regularly mown
Modified Grassland	0.164	Moderate	0.57	Area along the south and south-west boundarie to be sown with higher diverse species mix to create at least 6-8 species per metre square. The area will be free of invasive species, less than 5% cover of physical damage, less than 20% scrub and bracken cover.
Other Neutral Grassland	1.4	Poor	5.21	Three areas of grassland on the northern, southern and western boundaries to be seeded with meadow mix with reduced cutting regime, unlikely to achieve higher than poor due to disturbance. Area will be managed to have varied sward height, less than 20% cover of scrub and less than 5% cover of bracken and free of invasives.
Other Neutral Grassland	0.16	Moderate	1.07	Area within the northeastern open space, protected from footfall and reduced cutting regime set out within a HMMP. Species mix will closely match characteristics of UKHab composition (essential for achieving moderate condition). The area will support less than 20% cover of scrub, and less than 20% cover of bracken. It will be managed to be free of invasive species and provide a varied sward structure.
Pond (non-priority habitat)	0.24	Moderate	1.73	A single pond will be created in the open space to the north of the site. Less than 10% of the water surface is covered in duck weed (*lemna Sp.*) and there are no invasive plant or animal species. Emergent, submerged or floating plants will cover >50% of water less than 3m deep. The pond will not be artificially stocked with fish and no more than 50% shaded by trees or scrub.
Individual Urban Trees	0.2239	Moderate	0.68	55 small trees will be planted across the scheme, predominantly associated with avenue planting and areas of public open space and will achieve an anticipated DBH <30cm. The trees will be well managed, however will be in areas of open space close to the new residential properties, therefore anthropogenic disturbance and damage is expected.

Habitat	Area (Ha)	Target condition	Units Delivered	Justification for Target Condition
Individual Urban Trees	0.0163	Poor	0.05	4 small trees will be planted along the roadside of the main access road that will achieve an anticipated DBH <30cm. The trees will be well managed, however will be in areas of open space close to the new residential properties, therefore anthropogenic disturbance and damage is expected. And the areas of vegetation under the canopy will be limited.
Mixed scrub	0.044	Moderate	0.29	Areas of mixed scrub created in the north east around the attenuation pond. Planted with a mix of native woody species and managed to achieve criteria A,C and D.
On-site habitat enhancement				
Other Neutral Grassland	0.04	Poor	0.16	Area of grassland surrounding the large oak tree T8. Fail essential criterion A and therefore cannot achieve greater than 'poor' condition. Planted with EM2 or similar and managed to achieve criteria A, B, C and D

Compensation

7.2.4 The scheme is expected to provide a greater than 10% net gain in both habitat and hedgerow units onsite within the redline boundary. Therefore, additional off-site compensation for these receptors in not required.

Birds

7.2.5 During the construction phase No. 17A Triple Cavity swift boxes (LBAP species for Leicestershire), Habibat starling nest boxes, and 1SP Schwegler sparrow terraces will be integrated onto north or north-easterly elevations of the new residential units across the site. The boxes will be included in a 1:1 ratio (in line with BS42021:2022) and positioned at a height of between 4 and 5 metres with an unobstructed flight line to and from the boxes during the autumn.

7.2.6 The HMMP should secure the inclusion of soft landscape treatments in the form of native trees, hedgerows and shrubs, planted across the site to offset any loss of vegetation and to provide supplementary habitat for overwintering and breeding birds within the area.

7.2.7 The enhance the site, it is recommended that ecotones are created around the edge of the retained, created and enhanced grassland between hedgerow and grassland habitat. Annual

mowing maintenance detailed within a HMMP will keep the grassland edges open and encourage flowering species which will in turn increase invertebrate diversity boosting foraging resources for species such as linnet, song thrush, dunnock and blackbird.

Bats

7.2.8 Post construction landscape treatments should be sympathetic to bat species and seek to enhance open space for bat species.

7.2.9 New roosting provision should be provided within a minimum 10% of new residential dwellings (Appendix 10). During construction, Vivara Pro Build-in Woodstone Bat Tubes (or similar approved) should be positioned on elevations facing a south – south easterly direction away from artificial light sources, at an eave height of above 4 metres and with a clear direct light lines.

Reptiles, Herptiles and Small Mammals

7.2.10 Construction of suitable hibernacula within the open space positioned within the north-western corner of the application site (Appendix 10). The hibernacula consist of an excavated hollow infilled with materials such as building rubble and/or tree roots. Small drainage pipes are placed around the edges of the hollow that lead from the surface into voids and spaces within the building rubble and/or tree roots. This allows access into the voids within the material used. The hollow is then covered over with loose turfs of soil and allowed to revegetate naturally.

7.3 Monitoring

7.3.1 As a result of the impact of the proposed development, post-construction monitoring is required on the retained grassland in the north-east of the site, as well as the areas of grassland creation, SUDs areas and individual tress across the site. Monitoring will be undertaken annually until year 5, then every 5 years for 30years as part of the HMMP and safeguards of Biodiversity Net Gain.

7.3.2 If works do not commence within two years of the Phase 1 habitat survey, and 1 year of the phase 2 surveys the baseline conditions may need to be reassessed.

8 Conclusions

8.1.1 The application site on Land at Ashby Road, Hinckley has been the subject of a series of habitat and protected species surveys undertaken following best practice guidelines. The site was found to support habitats ranging between 'site' and 'county' value at an ecological level (Table 4).

8.1.2 The Phase 1 habitat survey and Phase 2 surveys confirmed that, breeding birds, bats, amphibians, reptiles, badgers, hedgehogs and water vole had the potential to be negatively affected by the proposed development and as such mitigation measures have been created to safeguard the status of these protected and notable species, reducing the effect to neutral or a positive effect.

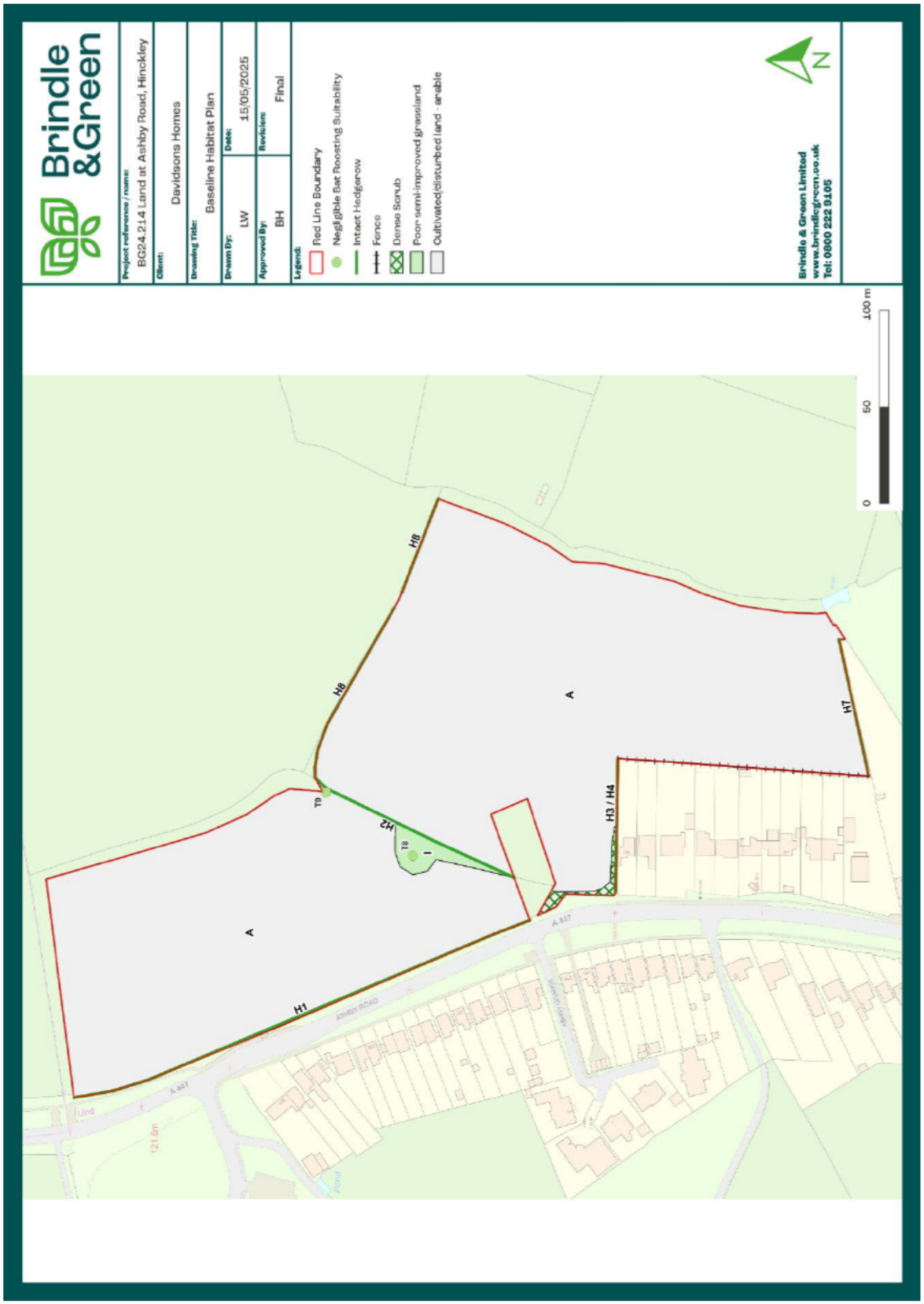
8.1.3 The mitigation strategies outlined above should be secured through planning condition or obligation, to ensure that a negative effect for local wildlife populations and biodiversity is avoided and potentially enhanced through the landscape plan and prevent residual effects. These strategies will be secured within a Construction Ecological Management Plan, as a planning condition of an approved application

8.1.4 The arable land and grassland on site recorded during the baseline survey are considered to be locally frequent and of relatively low ecological value, while the native hedgerows are of higher quality. However, the sections of these hedgerows lost during the development will be compensated for by the creation of new native hedgerows around the proposed areas of open space. As a result, the loss of these habitats is not considered to be significant. The retention and enhancement of grassland in the centre of the of the site post construction, as well as creation of large areas of open space to the north, will improve the structural and botanical diversity on site, enhancing the application site for a number of local species populations.

8.1.5 The implementation of enhancements listed within Section 7.2 would secure positive gains to local biodiversity when compared to the baseline ecological conditions of the application site. A will be secured via a Habitat Management and Monitoring Plan (HMMP).

8.1.6 The mitigation proposals detailed in Section 6 successfully address the potential impacts from the development to comply with both wildlife legislation and policy.

Appendix 1 – Phase 1 Habitat Plan



Appendix 2 - Phase 1 Species List

Table 15: Plant Species List with DAFOR Scale

Scientific nomenclature follows Stace (2010) for vascular plant species and common names follow BSBI List of British & Irish Vascular Plants and Stoneworts.

Please note that this plant species list was generated as part of a Phase 1 Habitat survey and does not constitute a full botanical survey.

Abundance was estimated using the DAFOR scale as follows:

D = dominant, A = abundant, F = frequent, O = occasional, R = rare, LF = locally frequent

Common Name	Scientific Name	Estimated Abundance (DAFOR)
Alder	*Alnus glutinosa*	F
Annual Meadow Grass	*Poa annua*	A
Blackthorn	*Prunus spinosa*	D
Bramble	*Rubus fruticosus*	D
Cherry Laurel	*Prunus laurocerasus*	D
Cleavers	*Galium aparine*	O
Common Dandelion	*Taraxacum officinale*	F
Common Nettle	*Urtica dioica*	A
Common Ragwort	*Jacobaea vulgaris*	O
Cow Parsley	*Anthriscus sylvestris*	F
Creeping Bent	*Agrostis stolonifera*	O
Creeping Buttercup	*Ranunculus repens*	F
Dock	*Rumex sp.*	F
Dog's mercury	*Mercurialis perennis*	O
English Oak	*Quercus robur*	R
False Oat-grass	*Arrhenatherum elatius*	A
Field Maple	*Acer campestre*	F
Green Alkanet	***Pentaglottis sempervirens***	O
Hawthorn	*Crataegus monogyna*	D
hogweed	*Heracleum sphondylium*	F
Holly	*Ilex aquifolium*	O
Ivy	*Hedera sp.*	F
Perennial Rye Grass	*Lolium perenne*	A
Privet	*Ligustrum sp*	O
Spear Thistle	*Cirsium vulgare*	F
White Clover	*Trifolium repens*	F
Willow herb	*Epilobium sp.*	A
Yarrow	*Achillea millefolium*	O
Yorkshire Fog	*Holcus lanatus*	A

Appendix 3 – General References

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Appendix 4 – Legislation, Policy and Guidance

Articles of British wildlife and countryside legislation, policy guidance and both Local and National Biodiversity Action Plans (BAPs) are referred to. The articles of legislation are:

- The Wildlife and Countryside Act 1981 (as amended)
- The Conservation of Habitats and Species Regulations 2017 (as amended)
- Department for Communities and Local Government. National Planning Policy Framework. (2023)
- EC Council Directive on the Conservation of Wild Birds 79/409/EEC
- The Protection of Badgers Act 1992
- The Natural Environment and Rural Communities Act 2006 (Including National and Local Biodiversity Action Plan (LBAP / HPI))
- Hedgerow Regulations 1997
- The Environment Act 2021

Appendix 5 – Legislation, Guidance and Methodology

Breeding Birds

All nesting birds are protected under the Wildlife and Countryside Act 1981, which makes it an offence to intentionally kill, injure or take any wild bird or take, damage or destroy its nest whilst in use or being built, or take or destroy its eggs. In addition, for species listed on Schedule 1 of the Wildlife and Countryside Act 1981 it is an offence to intentionally or recklessly cause disturbance at, on or near an 'active' nest.

The bird breeding season is typically accepted to start in February/March and continue through until September/October, however breeding birds can be found all year round depending on the given species and climatic conditions.

A sites habitat composition, locality, association to designated sites as well as current usage and management are all considered in the decision as to whether further bird related surveys are required. In addition, surveys may be recommended based on incidental bird records collected during a Preliminary Ecological Appraisal, species identified within an ecological data search or target species listed within a local biodiversity action plan.

Bird surveys are carried out in accordance with:

- Gilbert G, Gibbons DW, Evans J. (1998) Bird Monitoring Methods. RSPB.

Bats

Roosting Bats

All bats in the United Kingdom and their habitats are fully protected under the Wildlife and Countryside Act 1981 (as amended), and the Conservation of Habitats and Species Regulations 2017 (as amended). It is an offence to damage or destroy any bat roost, intentionally or recklessly obstruct a bat roost, deliberately, intentionally or recklessly disturb a bat or intentionally kill, injure or take any bat.

Areas of concern; can be encountered in many types of structure and care should therefore be taken when undertaking maintenance or demolition of suitable structures and trees.

Site assessments of buildings, commuting and foraging habitat and trees are undertaken in accordance with:

- Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines, (4th edition). Bat Conservation Trust, London. ISBN-978-1-7395126-0-6 (**Table 16**, **Table 17** and **Table 18**).

Preliminary Ecological Surveys look for evidence of bat presence such as feeding remains, bat droppings, roosting individuals and staining around potential access points. The suitability of site features are also assessed because absence of bat evidence, is not confirmation of a negative result.

Within trees, features searched for include; natural holes, woodpecker holes, cracks/splits in major limbs, loose bark, hollows, and dense cover of ivy over the tree. If evidence is found, or a building supports features conducive to supporting roosting bats then further presence / absence bat surveys and/or roost characterisation surveys will be recommended.

Foraging and Commuting bats

Habitat features on site are assessed for their suitability to support foraging and commuting bat populations. This assessment is independent from the suitability of the site to support roosting bats, and provides information on the likeliness of bat foraging activity within the local environment, and the dependence of individuals on these features for commuting to alternative roosting sites, foraging and migration.

Table 16: Guideline for assessing the suitability of a structure to support roosting habitat amended from Collins, J (2023)

Category	Description of Roosting Habitat	Number of additional presence / absence surveys required
None	No habitat features on site likely to be used by roosting bats at any time of year (complete absence of potential roosting features).	None
Negligible Suitability	Suitable cavities may exist, but these are less than ideal. Uncertainty remains as bats can use these features on occasion.	None
Low Suitability	A structure with one or more potential roost sites that could be used by individual bats opportunistically. The feature and surrounding habitat do not provide enough shelter, conditions* space for larger roost types such as a maternity or hibernation roost.	One survey between May and August

Category	Description of Roosting Habitat	Number of additional presence / absence surveys required
Moderate Suitability	A structure considered to have one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions* and surrounding habitat but are unlikely to support a roost of high conservation status (With regard to roost type only – assessments are made irrespective of species conservation status, which is established after presence is confirmed).	Two surveys between May and September (with at least one survey undertaken between May and August). Surveys should be spaced at least 3 weeks apart.
High Suitability	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.	Three surveys between May and September (with at least two surveys undertaken between May and August). Surveys should be spaced at least 3 weeks apart.
Confirmed	This category is where positive evidence of bats has been recorded. For example, bats are found; bat droppings may be present at a suitable location for roosting bats; existing bat records may be associated with the structure.	

* In this context conditions refers to the level of disturbance, light, height above ground, temperature, and humidity etc

Table 17: Guideline for assessing the suitability of a tree to support roosting habitat amended from Collins, J (2023)

INITIAL STAGE (Site scoping/PEA/PRA)		
Category	**Description**	**Survey effort to establish the presence/absence of bats**
NONE	Either no PRFS in the tree or unlikely to be any	None
FAR	Further assessment required to establish if PRFs are present in the tree	Ground Level Tree Assessment (GLTA) to further assess suitability
PRF	A tree with at least one PRF present	Ground Level Tree Assessment (GLTA) to further assess suitability
DETAILED STAGE (PEA/PRA/GLTA)		
PRF - I	PRF only suitable for individual bats or small numbers of bats due to size or lack of suitable surrounding habitats	None – precautionary method of works for removal and provision of roosting compensation

INITIAL STAGE (Site scoping/PEA/PRA)		
Category	**Description**	**Survey effort to establish the presence/absence of bats**
PRF - M	PRF suitable for multiple bats and may therefore be used by a maternity colony	Three Climbing inspection surveys for features to be undertaken May to September with at least 2 May to August. Surveys should be 3 weeks apart. If climbing and inspection not possible, 3 dusk emergence surveys with NVAs (Night Vision Aids) to be undertaken May to to September with at least 2 May to August. Surveys should be 3 weeks apart. Should a maternity colony be confirmed less invasive methods, such as dusk emergence survey with NVAs should employed.
Known roost	Known roost present through local records, evidence, sightings, etc	Three Climbing inspection surveys for features to be undertaken May to September with at least 2 May to August. Surveys should be 3 weeks apart. If climbing and inspection not possible, 3 dusk emergence surveys with NVAs (Night Vision Aids) to be undertaken May to to September with at least 2 May to August. Surveys should be 3 weeks apart. Should a maternity colony be confirmed less invasive methods, such as dusk emergence survey with NVAs should employed.

Table 18: Potential suitability of foraging and commuting habitat within an application boundary. Features should be assessed following this guide and professional judgement. Adapted from Collins, J (2023)

Category	Description of commuting and foraging habitat	Survey effort to establish the value of commuting and foraging habitat**
Negligible Suitability	Negligible habitat features on site likely to be used by commuting or foraging bats.	None
Low Suitability	Habitat which could be used by low numbers of commuting bats such as an isolated gappy hedgerow, or an unvegetated stream unconnected to suitable habitat in the wider environment. Suitable, yet isolated habitat that could be used by foraging bats such as individual trees, or a patch of scrub.	Nighttime bat walk (NBW) survey: One survey visit per active season (Spring – April/May, Summer (June/July/August) – autumn – September/October). AND Static automated surveys: Data to be collected over a five-night period, per season. (Spring – April/May, Summer (June/July/August) – autumn – September/October).
Moderate Suitability	Continuous habitat connected to the wider landscape that could be used by commuting bats, notably tree lines, hedgerows or linked back gardens. Habitat that is connected to the wider landscape which could be used by bats for foraging such as trees, open water, scrub or grassland.	Nighttime bat walk (NBW) survey: One survey visit per active season (Spring – April/May, Summer (June/July/August) – autumn – September/October). AND Static automated surveys: Data to be collected over a five-night period, per month (April to October)
High Suitability	Continuous, High-quality habitat that is well connected to the wider landscape which is considered to be highly conducive to commuting bats including river valleys, stream, hedgerows, and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree lined watercourses, and grazed parkland. Site is close to and connected to known roosts.	Nighttime bat walk (NBW) survey: One survey visit per active season (Spring – April/May, Summer (June/July/August) – autumn – September/October). AND Static automated surveys: Data to be collected over a five-night period, per month (April to October)

** This is only a guide for survey effort required, the complexity of the site and the proposed disturbance / loss of features will determine the extent of works required on a site by site basis

Badgers (*Meles meles*)

Badgers are protected under the Protection of Badgers Act 1992. It is illegal to wilfully kill, injure, disturb or take any badger, or attempt to do so and it is an offence to intentionally or recklessly damage, destroy, or obstruct access to any part of a badger sett.

Site assessments are undertaken in accordance with:

- Harris S, Cresswell P and Jefferies D (1989). Surveying Badgers.

During the PEA, the site and the 30-metre zone of Influence considered for this species are searched for evidence of badger activity. The surveyor will identify evidence of activity, or habitat suitability for this protected species. Even If no evidence of badger activity is found, if local conditions suggest that the habitat may be suitable for badger, further surveys will be recommended.

Amphibians

The great crested newt and natterjack toad are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981. The legislation protects these amphibians and their place of shelter or protection which may extend 500m from the breeding pond.

Great Crested Newt (*Triturus cristatus*)

The great crested newt, is fully protected under the Conservation of Habitat Regulations 2017 (as amended), making it an offence to intentionally or recklessly kill, injure, disturb or take great crested newts, intentionally or recklessly damage destroy or obstruct access to any place used by the animal for shelter or protection.

The legislation protects these amphibians and their place of shelter or protection which may extend 500m from the breeding pond. Sites should be considered suitable to support great crested newts if distribution and historical records suggest newts may be present, there is a pond within 500m of the development or the development site includes suitable terrestrial habitat refuges.

Great crested newt site assessments are undertaken in accordance with:

- English Nature. (2001) Great Crested Newt Mitigation Guidelines. English Nature, Peterborough. And
- Langton T, Beckett C and Foster J (2001) Great Crested Newt Conservation Handbook. Froglife, Halesworth.

Prior to a site visit, a desk study pond search is undertaken. When searching for ponds, Brindle & Green apply a total of 4 sources to establish their location. The following online sources are used:

OS MAPPING VIA EMAPSITE

GOOGLE EARTH PRO,

GOOGLE MAPS and

MAGIC MAPS

Each identified pond (Access permitting) is subjected to a Habitat Suitability Index (HSI) assessment providing a score for each pond. This survey should be undertaken during the summer period to be fully accurate, however assumptions can be made out of season to guide survey recommendations.

Reptiles

Two species of reptile, the sand lizard and smooth snake, and their habitats are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981. All other native British reptiles are protected against intentional killing and injury.

British reptiles are found in exposed, undisturbed areas, such as areas without cultivation with differing areas of grassland sward length. Suitable areas include abandoned sand quarries, fallow farmland land, heathland, post-industrial land, railway corridors etc. If these types of suitable features are found then further reptile surveys are recommended.

- Edgar P, Foster J and Baker J (2010) Reptile Habitat Management Handbook. Amphibian and Reptile Conservation, Bournemouth.
- Gent T and Gibson S (2003) Herpetofauna Workers Manual. JNCC, Peterborough.

Water Vole (*Arvicola amphibius*)

The water vole receives full protection Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). Legal protection makes it an offence to intentionally kill, injure or take (capture) a water vole. It is also an offence to intentionally or recklessly damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection or disturb water voles while they are using such a place.

Water vole site assessments were undertaken in accordance with:

- Strachan R. Moorhouse T, and Gelling M (2011) Water Vole Conservation Handbook.(3rd Edition) Wildlife Conservation Research Unit.

Water vole are usually found along water bodies that have still or slow flowing deep water with an abundance of bankside herbaceous vegetation. Such areas include dykes, rivers, streams and drains, but they can also be found on isolated large ponds.

If these types of suitable features are found during a PEA, then water vole surveys are recommended.

Invasive non-native weeds

Plant species such as Japanese knotweed (*Fallopia japonica*), Himalayan balsam (*Impatiens glandulifera*) and giant hogweed (*Heracleum mantegazzianum*) are examples of invasive non-native weeds classified under Part II of Schedule 9 of the Wildlife and Countryside act 1981. Any person who causes these species to grow or spread in the wild by dumping or other means is guilty of an offence. The plant and the soil these species are found growing in are classified as waste material and should be treated as such.

A simple walk over survey of the site to determine if these species are present was carried out during the PEA. A full list of Schedule 9 species can be found at Plantlife.org

Ecological Enhancement

In March 2023 the Department for Communities and Local Government published the National Planning Policy Framework. This sets out planning policies on protection of biodiversity through the planning system. The document states - opportunities to incorporate biodiversity in and around developments should be encouraged.

For new buildings guidance such as in the following will be used:

- Williams, C. (2010) Biodiversity for Low and Zero Carbon Buildings, A Technical Guide for New Build. Riba Publishing.

Designated Sites

Designated areas are Sites of Special Scientific Interest (SSSI) while others have been designated as having European protection status. Local authorities can also designate areas for nature conservation and in doing so may impose local authority byelaws to support local nature conservation objectives.

European designated status includes Special Protection Areas (SPAs) that preserve areas for birds and Special Areas of Conservation (SACs) which provides protection for habitats and the species which these habitats support.

Information of Designated Protected Areas is received through Ecological Data Searches and Magic Map searches.

Appendix 6 – Illustrative layout