Land off Windmill Avenue, Grimethorpe, Barnsley, S72 7AN

Ecological Impact Assessment

Prepared on behalf of

Mr J Nippers

Final Report

21 August 2025

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Ecological Impact Assessment

Document Control

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This report has been prepared, and is only valid for the named client, for the project described. The information which we have prepared and provided is in accordance with CIEEM's Code of Professional Conduct. Liz Ecology confirms that the opinions expressed are our true and professional bona fide opinions. The report is in accordance with the agreement under which our services were performed.

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Provided no significant changes are made to the proposals or on the site subsequent to the report's issue; this report can be considered valid for 18 months from the date of issue, in line with CIEEM's Advice Note on The Lifespan of Ecological Reports and Surveys (2019).

As part of membership to our professional body (CIEEM) we are required to provide our biological results to applicable biological record centres. As such, it is our intention to supply biological data collected as part of this assessment to the relevant centre unless directly instructed in writing not to do so by the client.

Non-technical Summary

- This report outlines the baseline ecological condition of the site, and any protected species or habitats which may be present on site. The site is located at Land off Windmill Avenue, Grimethorpe, Barnsley, S72 7AN.
- The survey was conducted to support a planning application for the development of six new dwellings.
- The development site is approximately 2100m2 and consists of hardstanding, ruderal, other neutral grassland, modified grassland and scrub. There are a hedge and single tree outside the site boundary.
- The important ecological features, or those brought forward due to legal protection, considered in detail within this assessment are the assemblage of birds, the assemblage of bats both foraging and commuting and hedgehog.
- Actions have been given for nesting birds, foraging and commuting bats and hedgehog.

Land off Windmill Avenue, Grimethorpe, Barnsley, S72 7AN
Ecological Impact Assessment

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1. INTRODUCTION

1.1 This report outlines the baseline ecological condition of the site, and measures which will contribute towards biodiversity enhancements as part of the proposed development. The site is located at Land off Windmill Avenue, Grimethorpe, Barnsley, S72 7AN (Grid reference: SE 41169 09821).

1.2 The survey was conducted to support a planning application for the development of six new dwellings.

Site Description

1.3 The site is comprised of hardstanding, ruderal, other neutral grassland, short medium grassland, scrub, a hedge and a single tree outside the site boundary.

1.4 The site is located within the town of Grimethorpe, east of Barnsley, south of Brierly and southeast of South Kirby. The site is an area of grassland and hardstanding within a built-up residential area between streets with residential dwellings and gardens adjoining either side of the site.

Scope

1.5 This report summarises the relevant policy and legislation framework, baseline ecology within the zone of interest, assesses any potential impacts and proposes impact avoidance and mitigation measures, as well as assessing any residual effects.

1.6 Where relevant, legislative and policy considerations are highlighted, including.

- The Conservation of Habitats and Species Regulations 2017 (as amended);
- The Wildlife and Countryside Act (WCA) 1981 (as amended);
- The Countryside and Rights of Way (CROW) Act 2000;
- The Natural Environment and Rural Communities (NERC) Act 2006;
- The Protection of Badgers Act 1992;
- The Salmon and Freshwater Fisheries Act 1975;
- The Eels (England and Wales) Regulations 2009;
- Hedgerow Regulations 1997;
- Wild Mammals (Protection) Act 1996;
- The Invasive Alien Species (Enforcement and Permitting) Order 2019; and
- The National Planning Policy Framework (NPPF) (2023).

1.7 The planning authority for the site is Barnsley Metropolitan Borough Council. The council have an adopted local plan which requires all developments to have a minimum of 10% net gain for biodiversity.

2. METHODOLOGY

2.1 This Ecological Impact Assessment (EclA) was undertaken in line with guidance in the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines for Ecological Impact Assessment in the UK (2018, Version 1.1.).

2.2 The process prescribed by CIEEM's EclA Guidelines, including an explanation of the key terminology that is used, is described below. In summary, the guidelines advocate the following step-wise approach to EclA:

- Prediction of the activities associated with a proposed scheme that are likely to generate biophysical changes which may lead to significant effects (either positive or negative) upon ecological features of importance;
- Identification of the likely Zone of Influence of those activities;
- Scoping to select the ecological features (habitats, species, ecosystems and their functions/processes) that are likely to fall within the predicted Zone of Influence and be affected by the activities;
- Evaluation of ecological features likely to be affected (both negatively and positively) to determine their level of importance and likely sensitivity;
- Identification of likely impacts (positive and negative) on important ecological features, together with an assessment of the geographic scale at which they are likely to be significant;
- Refinement of the proposed scheme to incorporate impact avoidance and mitigation for negative effects on important ecological features, and enhancements to deliver net gains in biodiversity;
- An assessment of the significance of residual effects and the need for compensation; and
- Advice on conformance with applicable nature conservation related legislation and policy.

Method of Ecological Valuation

2.3 The evaluation method uses the following geographical scale of importance:

- International and European;
- National;
- Regional;
- Metropolitan/ County;
- Local; and
- Site (included to quantify sites of lesser ecological value).

2.4 Determining the importance of ecological features makes use of any national and local government and specialist organisation identified sites, habitats and species that provide the key focus for biodiversity conservation in the UK, supported by policy and legislation. The determination of importance may also be based on expert judgement taking into consideration various characteristics such as rarity, naturalness, diversity, functionality, fragility and typicalness.

2.5 Important ecological features of Local or greater importance are carried forward to the assessment of likely significant effects stage. Other features of lower (i.e. Site) importance may also be carried forward, particularly where there may be legislative requirements pertaining to these features not necessarily associated with their ecological importance.

2.6 Each feature is also looked at to determine their current conservation status (species and habitats) or the degree to which they are exhibiting 'integrity' (designated sites or ecosystems). This takes into account the effect of natural and man-made trends, including those known to be likely to come into effect in the near future. Conservation status or integrity is described using the approach used by Natural England to describe the status of Sites of Special Scientific Interest (SSSIs):

- Favourable, improving;
- Favourable, stable;
- Favourable, declining;
- Unfavourable, improving;
- Unfavourable, stable; and
- Unfavourable, declining.

Assessing the Likely Significance of Effects on Important Ecological Features

2.7 The effects of activities associated with a proposed scheme and their resultant biophysical changes on important ecological features are described in terms of their magnitude, extent, timing and frequency, duration and reversibility.

2.8 Effects of activities are considered significant if they cause a change in the conservation status of the important ecological feature (CIEEM, 2018). Changes that improve the conservation status are termed positive, whilst those that reduce it are negative. Otherwise, if there is no change in conservation status the effects are termed not significant/insignificant.

2.9 For guidance as to whether an effect is likely to result in a negative effect on the integrity or conservation status of an important ecological feature, reference has been made to the conservation objectives for that feature where they are available, for example, in habitat and species action plans. Otherwise, professional judgement has been made, based on available information.

2.10 The significance of likely significant effects and of residual effects is then stated in terms of the geographic scale of reference which takes account of the importance of ecological receptors, and the significance of potential effects upon them.

2.11 If a negative effect remains significant following the application of mitigation measures, then compensation is applied if this is possible.

Geographical Scope

2.12 The study area encompassed the Zone of Influence of the Project. The Zone of Influence is defined as "… the area over which ecological features may be affected by biophysical changes as a result of the proposed project and associated activities" (CIEEM, 2018).

2.13 The Zone of Influence of the Project encompasses different areas in respect of each important ecological feature depending on its location and sensitivity, and the spatial extent of the relevant biophysical change (e.g. light, noise, habitat loss).

2.14 In order to predict the potential Zone of Influence, the spatial and temporal extent of biophysical changes likely to be generated by the Project with the potential to lead to effects upon important ecological features were predicted and are shown in Table 1.

2.15 However, the majority of the activities and resultant biophysical changes listed in Table 1 are unlikely to have an effect beyond the Site and the immediate surrounding area. The exceptions to this include birds and bats due to their highly mobile nature, potentially up to 5-7km for birds and usually 6km for bats (based on barbastelle bats, Bat Conservation Trust Core Sustenance Zones, 2016), and activities such as uncontrolled discharges of pollutants, changes to ground and surface water drainage, air pollution which can be catchment wide.

Zone of Influence

2.16 The study area encompassed the Zone of Influence of the Project. The Zone of Influence is defined as "… the area over which ecological features may be impacted by biophysical changes as a result of the proposed project and associated activities" (CIEEM, 2018). Further information regarding classification for the Zone of Influence is provided in Appendix IV.

2.17 The Zone of Influence, and the study area, is broadly considered to extend across the site, or just beyond the site boundary in most cases, with the potential for up to or exceeding 5 kilometres with regards to designated sites.

Table 1: Summary of predicted changes and Zone of Influence

Predicted Change	Zone of Influence
Vegetation/habitat clearance	Site
Generation of dust during site clearance and construction	Site and immediate surrounds (200m)
Acoustic disturbance and vibration from construction activities	Site and immediate surrounds (Typically up to 300m)
Increased traffic-related air pollution and potential to impact upon sensitive habitats during both construction and operational phase	Habitats within approximately 200m of affected roads
Lighting (during construction and in long term)	Site and immediate surrounds
Changes to local hydrology, including surface water runoff and groundwater	Likely to include watercourses that receive surface water discharges, and downstream habitats
Landscape planting and habitat creation / Green Infrastructure creation	Site

Desk Study

2.18 The Multi-Agency Geographical Information for the Countryside (MAGIC) website was used to provide information on any statutory designated sites within two kilometres of the proposed development. Due to the location of the site within a residential development and the low ecological value of the habitats present on site no desk study from the local records centre was obtained.

Field Study

2.19 The survey employed techniques based on the UK Habitat Classification System. Botanical information was collected, focussing on the dominant and/or key indicator species for each habitat, to enable allocation of habitats to hierarchy levels 3 and/or 4, and where relevant to identify any priority habitats which are present on site. The conditions of the habitats on the site were assessed in line with the technical sheets supplied alongside DEFRA Metric 4.0. This is to inform future Biodiversity Metric calculations if required. A map of the baseline habitats on site is provided in Appendix 1.

2.20 The survey also employed techniques based on the Phase 1 habitat survey methodology (JNCC, 2010) to assist with other assessments. A detailed walkover survey was undertaken on 24th June 2025 in suitable weather conditions, directly searching for legally protected and invasive species of plant and categorising any habitats of ecological value that were encountered. A general description of the vegetation was also noted, listing species encountered and scoring their abundance using the DAFOR scale:

- Dominant (D)
- Abundant (A)
- Frequent (F)
- Occasional (O)
- Rare (R)
- Local (L, used as a prefix to any of the above)

Protected Species Assessment

2.21 Habitats and features were assessed for their potential to support protected species. In many cases determining the presence, distribution and population size of protected species will require additional, specialist surveys.

Amphibians

2.22 Consideration was given to the presence of habitat potentially suitable for supporting amphibians including water bodies (ponds, ditches), woodland, scrub, rough grassland and features such as log piles that might provide hibernation areas. Where appropriate, effort to gather direct evidence of amphibians was undertaken using a preliminary search for eggs by examining vegetation within reach of the margins of water bodies, and for resting animals on land by looking under potential refuges such as stones, wood and rubbish near to water bodies.

2.23 Great crested newts are known to forage up to at least 500m from their breeding water bodies and suitable habitats that fall within 250m must be considered even in situations where the breeding site itself will not be affected.

Reptiles

2.24 Habitat considered potentially suitable for supporting reptiles was recorded. This includes areas providing basking and foraging areas, hibernation and breeding sites such as rough grassland and scrub, banks, burrows, rubble piles, compost heaps, hedge banks and water bodies.

Birds

2.25 Any birds seen whilst carrying out the survey were recorded and the type and quality of habitats available for birds was considered, including vegetation suitable for nesting and habitat with the potential to support valued species including breeding and wintering birds.

Bats

Preliminary Roost Appraisal

Trees

2.26 Bats often roost in trees. Features such as old woodpecker holes, splits, cavities and rot holes, loose or flaking bark and ivy creepers will be exploited by bats to roost. Any trees present on site were therefore assessed for their potential to support roosting bats by searching for such features. The presence of roosting bats can be spotted through signs such as accumulations of moth or butterfly wings, staining, bat droppings, or bats themselves.

2.27 The absence of these cannot, however, be treated as conclusive evidence that bats are not present, and therefore an assessment was made of the potential of the trees to support bats based on the scale presented in Table 2 below, adapted from the Survey Guidelines (Collins, 2023). Further bat tree surveys, either ground level tree assessment or PRF aerial assessments may be required following the initial assessment.

Table 2: Criteria for assessing bat roosting potential of trees

Suitability	Description
None	Either no Potential Roosting Features (PRFs) in the tree, or highly unlikely to be any
FAR	Further assessment required to establish if PRFs are present in the tree
PRF	A tree with at least one PRF present

2.28 A direct search for evidence of bats was therefore conducted on 24th June 2025 by Elizabeth Davies (licensed bat worker).

2.29 A preliminary evaluation was also undertaken of the habitat on the site for the quality of potential commuting and foraging habitat for the local bat populations. Bats navigate using linear features in the landscape such as hedgerows and these can be important features for local roosts. The site itself may also provide important foraging habitat and support local bat roosts.

An assessment was therefore made of the potential of the habitat to offer suitable flight paths and foraging habitats based on the scale presented in Table 3 below, adapted from the Survey Guidelines (Collins, 2023):

Table 3: Criteria for assessing potential flight paths and foraging habitats

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

Badgers

2.30 Consideration was given to the presence of habitat potentially suitable for supporting badgers including woodland, scrub and grassland. Potential evidence of the presence of badgers was noted including earthworks that might be badger setts, signs such as dung pits, mammal pathways through ground vegetation and under fences and hairs on fences.

Dormouse

2.31 The habitat on the site was assessed for the potential to support dormice which are found in habitats such as woodlands, scrub and hedgerows with good connectivity and suitable food plants. Satellite images were used to assess the connectivity of any suitable habitat present on the site to other areas of woodland and hedgerow networks.

Constraints

2.32 There were no constraints to the survey.

3. RESULTS

Designated sites

Statutory sites

Internationally important sites

3.1 There are Internationally important sites within 5km of the site.

Nationally important sites

3.2 There is one Nationally important Sites of Special Scientific Interest (SSSIs) within 5km of the site:

- Dearne Valley Wetlands, SSSI, 3km northwest

3.3 The site is located within a SSSI Impact Risk Zone, and further consideration regarding the drainage of the site will be required to ensure no adverse impacts on the designated site.

County Important sites

3.4 There are three Local Nature Reserve (LNR) within 5km of the site:

- Fitzwilliam Country Park, LNR, 3km northwest;
- Carlton Marsh, LNR, 3km east;
- West Haigh Wood, LNR, 1617m southeast

3.5 The LNR are all considered to be outside the Zone of influence for the site.

Strategic significance

3.6 The site is located between two streets within a residential area; the site does have some trees outside the boundary which could provide a link to the wider landscape. The site is within 250m of a designated greenbelt, which has rural fields, hedgerows and tree lines extending into the wider landscape.

3.7 There are NERC S41 Priority habitats shown on MAGIC, the closest is approximately 200m east of the site, priority deciduous woodland.

3.8 There is one nationally designated site within 3km of the site. The site is located within a SSSI Impact Risk Zone; however, the proposed development does not trigger a requirement to consult Natural England regarding the proposed development. Further information regarding drainage of the site will be required to ensure no adverse effects on the Dearne Valley Wetlands SSSI.

3.9 There are no ecological network opportunity areas or Priority habitat areas on site.

3.10 The site is not part of any designated site or listed on any local plan, neighbourhood plan or other policy document for ecology. It is within a residential area within the local plan, and is located in an area where a Local Nature Recovery Strategy is yet to be published As such it is considered to

have high strategic significance. and is considered to have low strategic significance (Location ecologically desirable but not in local strategy).

UK Habitats

3.11 The following were recorded on the site, or immediately adjacent. A habitat map is provided in Appendix II, and habitats are described below:

- Developed land, sealed surface,
- Ruderal
- Other neutral grassland,
- Modified grassland,
- Scrub
- Hedge.

Developed land, sealed surface

3.12 There is an area of hard standing on the northeastern side of the site where the site is accessed from the existing housing estate. This has a distinctiveness of very low, and condition assessment is not required.

Ruderal

3.13 There is a small area of ruderal habitat on site in the east. Species recorded include: dock species, apple saplings, rosebay willowherb, hedge bindweed, creeping buttercup and bramble.

3.14 The parcel is not a good example of its habitat type, it is very small, there is an absence of invasive non-native species and there are no edge habitats. There are no invasive non-native species present on site.

3.15 This has a distinctiveness of low, and condition is assessed to be poor.

Other Neutral Grassland

3.16 There is a small area of longer sward other neutral grassland in the west of the site. Species recorded include dandelion, field bindweed, Yorkshire fog, perennial rye grass, dog rose, rough meadow grass, barren brome and cocks foot.

3.17 The grassland is maintained at a moderate sward length across the whole area. There is an absence of invasive non-native plant species. The cover of bare ground is between 1 and 5%. There is no bracken present, and bramble cover is more than 5%. There were approximately 4-5 species per square meter. The area is not a good example of other neutral grassland due to the species composition.

3.18 This has a distinctiveness of medium, and condition is assessed to be poor.

Modified grassland

3.19 The majority of the site is comprised of modified grassland, which is maintained at a short sward height for amenity use. Species recorded include perennial rye grass, ribwort plantain, hawkbit species, white clover, daisy, yarrow, ragwort, Yorkshire fog and creeping buttercup.

3.20 The grassland is maintained at a short sward length across the whole area. There is an absence of invasive non-native plant species. There were approximately 4-5 species per square meter, bare ground is between 10% and 15%, bracken is less than 20%.

3.21 The habitat has a distinctiveness of low, and condition is assessed to be poor.

Scrub

3.22 There is a small area of bramble scrub in the west of the site. Species recorded include dominant bramble, with dog rose, nettle, barren brome, hedge bindweed, creeping thistle, broadleaved dock.

3.23 The habitat has a distinctiveness of medium and condition assessment is not required.

Hedge

3.24 There is a hedge which leads along the access road to the site, but is located outside the red line in the adjacent garden. The species found there include elder, hawthorn and dog rose.

3.25 This hedgerow has a height of more than 1.5m average along the length, and less than 1.5 metres in width. There is a gap at the hedge base of less than 0.5 metres and the gaps in the total length make up less than 10% of the total length of the hedgerow. The ground at the base of the hedgerow is unmanaged. There are no invasive species and 90% of the hedgerow is undamaged by human activities

Protected species

Plants

3.26 No protected or notable plant species were recorded on site. Protected plants are not considered further in this assessment.

Invertebrates

3.27 There is no deadwood habitat within the site boundary which would offer potential habitat for a variety of insect larvae.

3.28 No habitat suitable to support protected or notable species were recorded during the walkover.

3.29 While the site may support notable invertebrate species, given the size of the site and the current state of the available habitat, it is unlikely to support an assemblage of local interest therefore invertebrates are not considered further in this assessment.

Amphibians

3.30 There is one granted European Protected Species Applications (England) for Great Crested Newt (2009) present within the vicinity shown on MAGIC.

3.31 The site was assessed for its suitability to support great crested newts and other amphibians- in its current state the working area of the site is considered unsuitable for newts due to a lack of ponds in the locality, lack of vegetative complexity, adequate protective cover and foraging opportunities.

3.32 It is considered highly unlikely that great crested newts or other amphibians are present on site and no further survey or mitigation has been recommended.

Reptiles

3.33 The majority of the site is sub-optimal for reptiles due to the shorter sward grassland vegetation which is present on site offering minimal areas for basking reptiles.

3.34 It is considered highly unlikely that reptiles are present on site and no survey or mitigation has been recommended.

Birds

3.35 The site offers low potential nesting and foraging opportunities for common species of bird.

3.36 Given the amount of habitat available on site and the surrounding habitat it is considered unnecessary to undertake further breeding bird surveys.

3.37 Overall, the bird assemblage is assessed as likely to be of site level importance for nature conservation.

Bats

3.38 There are no Natural England mitigation licences in the vicinity of the site shown on MAGIC.

Preliminary Roost Appraisal

3.39 There are no trees within the site boundary or adjacent to the site boundary which offer suitability for roosting bats.

Foraging and commuting habitat

3.40 The site contains some suitable habitats for foraging and commuting bats along the hedge, and along scrub habitat.

3.41 The site has limited connectivity to foraging habitat in the wider landscape. The habitat on site is therefore assessed as low quality for foraging and commuting bats.

3.42 The bat assemblage is assessed as of local importance for nature conservation. Further recommendations regarding lighting impacts are given in Section 4.

Badger

3.43 No field signs of badgers were noted on site. The habitat on site is not suitable for foraging badgers, or the creation of badger setts.

3.44 It is considered unlikely that the site supports a population of badger, therefore no further recommendations have been provided.

Dormice

3.45 There are no signs of dormice on site. The habitat on site is not suitable for dormice, with limited foraging plant species present.

3.46 It is considered highly unlikely that dormice are present on site and no survey or mitigation has been recommended.

Other mammals

3.47 The site offers suitable habitat for foraging or commuting hedgehog. This species is listed as vulnerable on the IUCN red list and is a species of Principal Importance under Section 41 of the NERC Act.

4. CONCLUSIONS

Breeding birds

4.1 All vegetation removal should be conducted outside of the bird nesting season which is considered to run from March to September. All arisings from vegetation clearance should also be removed from site.

4.2 Where clearance outside the nesting bird period is not possible a suitably qualified ecologist should check potential nesting habitat immediately prior to clearance. Where nesting birds are encountered a buffer zone will be established and works must be postponed until the nestlings have fledged.

Bats

4.3 The production and implementation of a Construction Method Statement (CMS) will be put into place prior to the beginning of the construction phase.

4.4 The CMS being implemented will prevent any disturbance impacts to bats during the construction period.

Lighting

4.5 Lighting to be installed as part of the works will be in line with Guidance Note 08/23 Bats and Artificial Lighting at night. The following will be required/must be considered:

- LED lighting will be used, and light levels will be kept as low as possible. Metal halide, fluorescent sources will not be used.
- Lighting will be directed to where it is required and away from the boundaries.
- Only luminaires with no light output above 90 degrees and/or an upward light ratio of 0% and with good optical control will be used, luminaires will always be mounted on the horizontal, i.e. no upward tilt.
- Any external security lighting will be set on motion-sensors and short (1min) timers.
- Internal lighting within the new rooms will be recessed where installed in proximity to windows to reduce glare and light spill.
- Light sources will emit minimal ultra-violet light, peak higher than 550nm and be of a warm white spectrum (ideally <2700 Kelvin).
- Glazing treatments (low transmission glazing treatments) can be considered.
- The use of bollard or low-level downward directional luminaires is strongly discouraged.

Hedgehog

4.6 Any areas of scrub which require removal to facilitate the works will be removed using hand tools outside of the hedgehog hibernation period (Between March and October inclusive).

5. REFERENCES

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Department for Communities and Local Government (2005), Circular 06/2005: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System.

Department for Levelling Up, Housing and Communities (2023), *National Planning Policy Framework.*

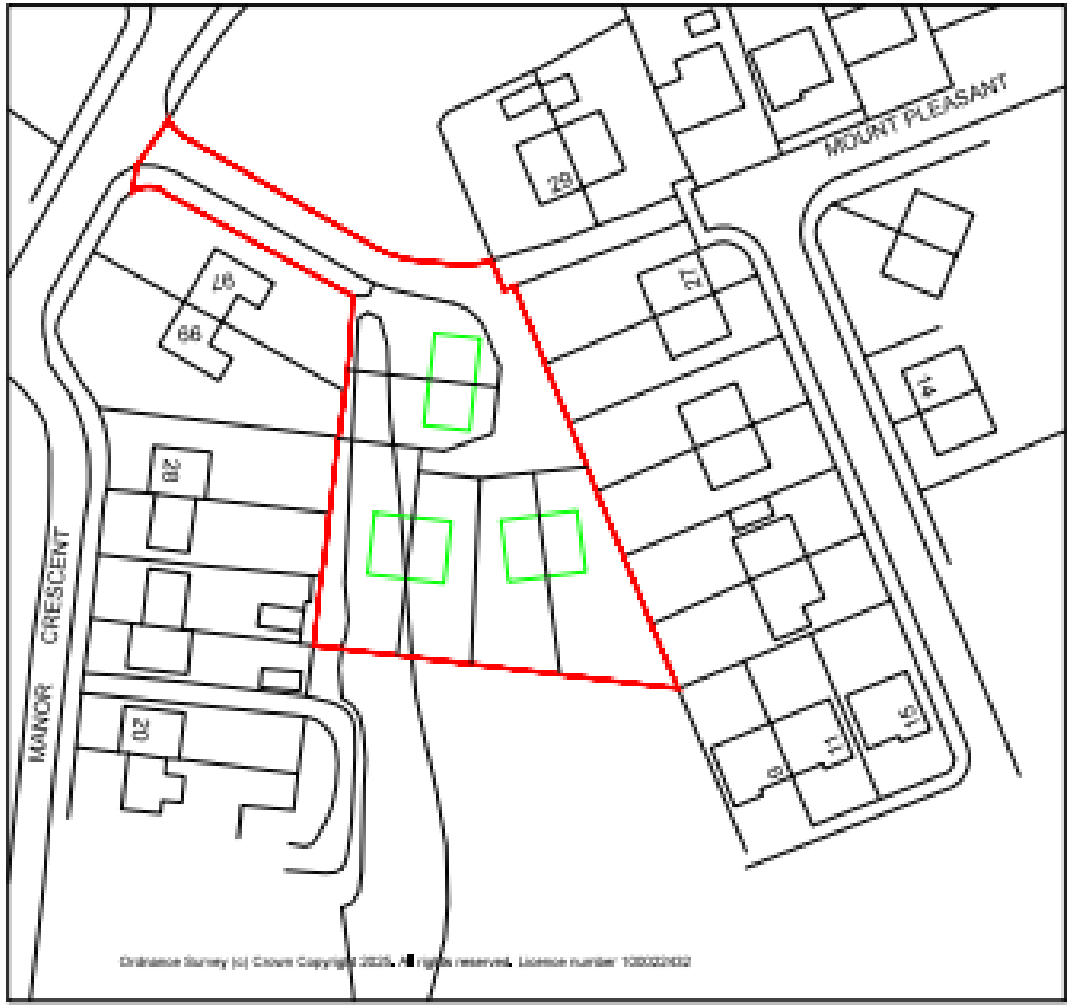
Joint Nature Conservation Committee (2010), Handbook for Phase I Habitat Survey. JNCC.

Ministry of Housing, Communities and Local Government (2021) *National Planning Policy Framework.*

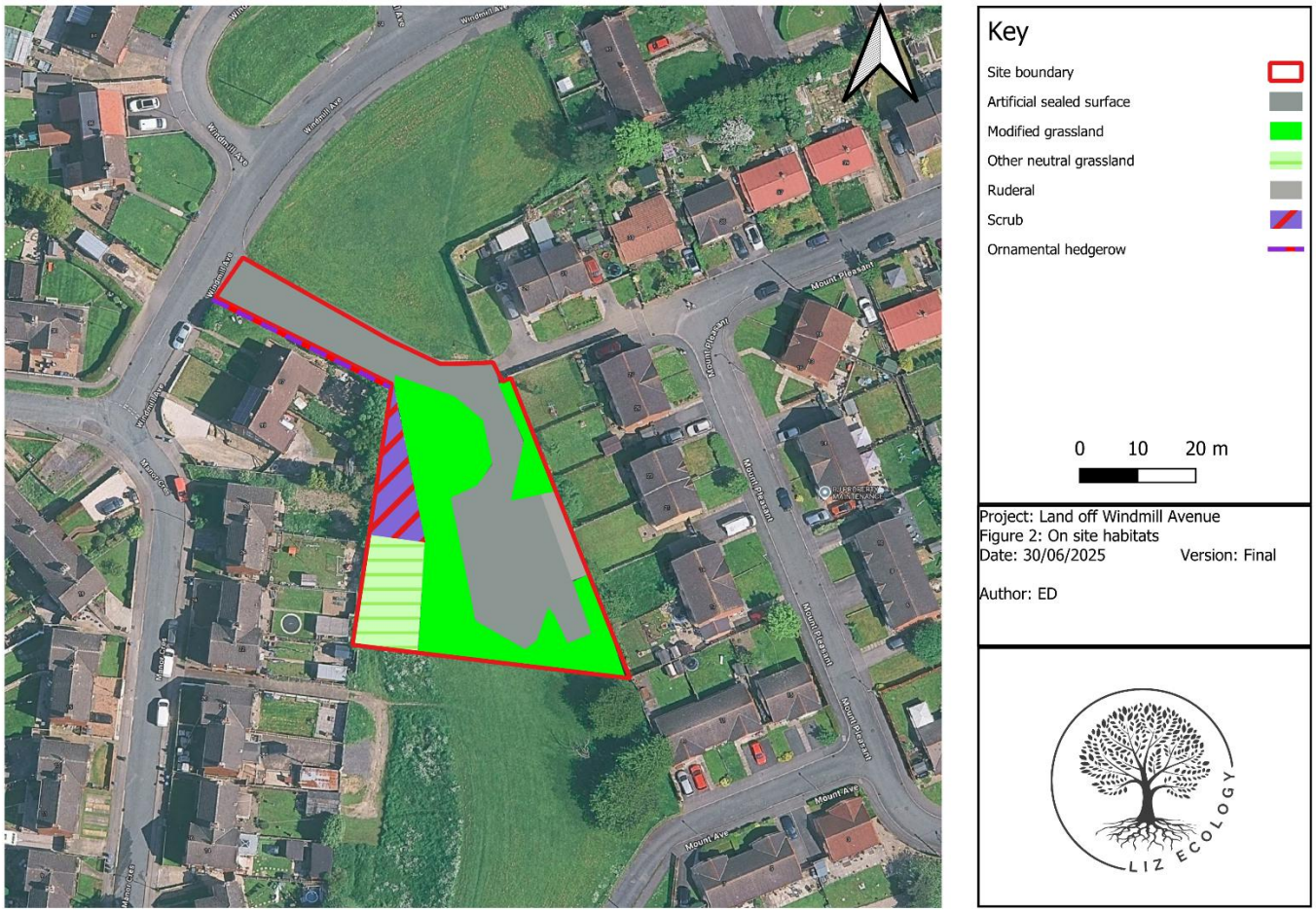
Multi-Agency Geographical Information for the Countryside (MAGIC) Website

Reason, P.F. and Wray, S. (2023). UK Bat Mitigation Guidelines: a guide to impact assessment, mitigation and compensation for developments affecting bats. Chartered Institute of Ecology and Environmental Management, Ampfield.

Appendix I: Site plan



Appendix II: Habitat Map



Key

- Site boundary
- Artificial sealed surface
- Modified grassland
- Other neutral grassland
- Ruderal
- Scrub
- Ornamental hedgerow

0 10 20 m

Project: Land off Windmill Avenue
Figure 2: On site habitats
Date: 30/06/2025 Version: Final

Author: ED

LIZ ECOLOGY

Appendix III: Photographs

Photograph 1: General view of site

Photograph 2: General view of site

Appendix IV: Legislation

Important notice: This section contains details of legislation and planning policy applicable in Britain only (i.e. not including the Isle of Man, Northern Ireland, the Republic of Ireland or the Channel Islands) and is provided for general guidance only. While every effort has been made to ensure accuracy, this section should not be relied upon as a definitive statement of the law.

A NATIONAL LEGISLATION AFFORDED TO SPECIES

The objective of the EC Habitats Directive[1] is to conserve the various species of plant and animal which are considered rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations (2017) (formerly The Conservation of Habitats and Species Regulations 2010 (as amended)) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) is a key piece of national legislation which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection obligations of Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Since the passing of the Wildlife & Countryside Act 1981, various amendments have been made, details of which can be found on www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CRoW) Act (2000).

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991;
- Countryside and Rights of Way (CRoW) Act 2000;
- Natural Environment & Rural Communities (NERC) Act 2006;
- Protection of Badgers Act 1992:
- Wild Mammals (Protection) Act 1996.

1 Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora

Species and species groups that are protected or otherwise regulated under the aforementioned domestic and European legislation, and that are most likely to be affected by development activities, include herpetofauna (amphibians and reptiles), badger, bats, birds, dormouse, invasive plant species, otter, plants, red squirrel, water vole and white clawed crayfish.

Explanatory notes relating to species protected under The Conservation of Habitats and Species Regulations (2017) (which includes smooth snake, sand lizard, great crested newt and natterjack toad), all bat species, otter, dormouse and some plant species) are given below. These should be read in conjunction with the relevant species sections that follow.

In the Directive, the term 'deliberate' is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.

The Conservation of Habitats and Species Regulations (2017) does not define the act of 'migration' and therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.

In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three 'tests': i) the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment; ii) that there is no satisfactory alternative and iii) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

Bats

All species of bat are fully protected under The Conservation of Habitats and Species Regulations (2017) through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:
    - to impair their ability:
        - to survive, breed, or reproduce, or to rear or nurture young;
        - to hibernate or migrate3
    - b) to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

Bats are also currently protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

How is the legislation pertaining to bats liable to affect development works?

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Though there is no case law to date, the legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded de facto protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost[2].

Birds

All wild birds, their nests and eggs are protected under Sections 1-8 of the Wildlife and Countryside Act 1981 (as amended). Among other things, this makes it an offence to:

- Intentionally kill, injure or take any wild bird;
- Intentionally take, damage or destroy the nest of any wild bird while it is in use or being built;
- Intentionally take or destroy an egg of any wild bird:
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.

2 Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected? Mammal News, No. 150. The Mammal Society, Southampton.

Certain species of bird, for example the barn owl, black redstart, hobby, bittern and kingfisher receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young;
- Intentional or reckless disturbance of dependent young of such a bird.

How is the legislation pertaining to birds liable to affect development works?

To avoid contravention of the Wildlife and Countryside Act 1981 (as amended), works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird breeding season which typically runs from March to August[3]. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Those species of bird listed on Schedule 1 are additionally protected against disturbance during the breeding season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Herpetofauna (Amphibians and Reptiles)

The sand lizard Lacerta agilis, smooth snake Coronella austriaca, natterjack toad Epidalea calamita and great crested newt Triturus cristatus receive full protection under The Conservation of Habitats and Species Regulations (2017) through their inclusion on Schedule 2. The pool frog Pelophylax lessonae is also afforded full protection under the same legislation. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of species listed on Schedule 2
- Deliberate disturbance of any Schedule 2 species as:
    - to impair their ability:
        - (i) to survive, breed, or reproduce, or to rear or nurture young;

3 It should be noted that this is the main breeding period. Breeding activity may occur outwith this period (depending on the particular species and geographical location of the site) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

        - (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate
    - to affect significantly the local distribution or abundance of the species
- Deliberate taking or destroying of the eggs of a Schedule 2 species
- Damage or destruction of a breeding site or resting place
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

With the exception of the pool frog, these species are also currently listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). Species such as the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis* are listed in respect to Section 9(1) & (5). For these species, it is prohibited to:

- Intentionally (or recklessly in Scotland) kill or injure these species
- Sell, offer or expose for sale, possess or transport for purpose of sale these species, or any part thereof.

Common frog Rana temporaria, common toad Bufo bufo, smooth newt Lissotriton vulgaris and palmate newt L. helveticus are listed in respect to Section 9(5) only which affords them protection against sale, offering or exposing for sale, possession or transport for the purpose of sale.

How is the legislation pertaining to herpetofauna liable to affect development works?

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect the breeding sites or resting places of those amphibian and reptile species protected under The Conservation Habitats and Species Regulations 2010 (as amended). A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the Wildlife and Countryside Act 1981 (as amended).

Wild Mammals (Protection) Act 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to:

- Mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

B NATIONAL PLANNING POLICY

The National Planning Policy Framework (NPPF)

The National Planning Policy Framework sets out the Government's planning policies for England and how these should be applied in local-level policy and decision making. The National Planning Framework was re-issued in July 2018 and updated in February 2019, July 2021 and September 2023. Key points relevant to the Natural Environment are given below.

> *8. Re: Sustainable development. The NPPF recognizes "that the planning system has three overarching objectives, which are interdependent and need to be pursued in mutually supportive ways (so that opportunities can be taken to secure net gains across each of the different objectives).*

These are the economic objective, the social objective, and the environmental objective; the full text of paragraph c) relating to this third objective reads as follows:

> *"to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity, using natural resources prudently, minimising waste and pollution, and mitigating and adapting to climate change, including moving to a low carbon economy."*

174. Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) Protecting and enhancing valued landscapes, sites of biodiversity … (in a manner commensurate withy the statutory status or identified quality in the development plan)

b) Recognising the intrinsic character and beauty of the countryside, and the wider benefits form natural capital and ecosystem services.

d) minimising impacts on and providing net gains for biodiversity, including establishing coherent ecological networks that are more resilient to current and future pressures.

175. Plans should: distinguish between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value.

176. Great weight should be given to conserving and enhancing landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to these issues. The conservation and enhancement of wildlife and cultural heritage are also important considerations in these areas, and should be given great weight in National Parks and the Broads. The scale and extent of development within these designated areas should be limited, while development within their setting should be sensitively located and designed to avoid or minimise adverse impacts on the designated areas.

177. permission should be refused for major development other than in exceptional circumstances, and where it can be demonstrated that the development is in the public interest. Consideration of such applications should include an assessment of:

a) the need for the development, including in terms of any national considerations, and the impact of permitting it, or refusing it, upon the local economy;

b) the cost of, and scope for, developing outside the designated area, or meeting the need for it in some other way; and

c) any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.

180. When determining planning applications, local planning authorities should apply the following principles:

> *a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
>
> *b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
>
> *c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*

d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.

181. The following should be given the same protection as habitats sites:

a) potential Special Protection Areas and possible Special Areas of Conservation;

b) listed or proposed Ramsar sites; and

c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

182. The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site."