

## 60 Sheepwalk Lane, Ravenshead

Preliminary Ecological Appraisal November 2023



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## 1 Summary

- 1.1 60 Sheepwalk Lane, Ravenshead (the 'Site') comprises of a bungalow, with surrounding hardstanding, vegetated gardens (mown grassland lawns) and ornamental shrub planting around the boundaries. Two wooden sheds are present in the garden. There are several semi-mature tree standards in the gardens and a tall conifer hedgerow along the eastern boundary.
- 1.2 It is understood that the buildings at the Site will be demolished and replaced with a number of new residential properties.
- 1.3 Habitats likely to be lost as a result of the development are of low ecological value.
- 1.4 The development design should seek to retain and protect trees where feasible. However, it is possible that works to or removal of mature and semi-mature trees may be necessary. Any tree loss should be compensated for with replacement native species tree planting.
- 1.5 The bungalow (Building 1) was considered to offer Low bat roosting suitability, as there were a number of potential bat access points in the soffits and under roof tiles. Based on the current proposals to demolish the building, a nocturnal bat survey in the period May to August is recommended to determine if roosting bats are present or likely absent; this recommendation is consistent with reference to current industry bat guidance (Collins, 2023). The timber sheds do not offer bat roosting suitability and no further survey is required if they are to be removed.
- 1.6 One tree is present in the Site that has Low bat roosting suitability. With reference to current industry bat guidance (Collins, 2023), precautionary working methods are recommended should the tree require removal or need remedial works.
- 1.7 A biodiversity net gain assessment has not been completed as part of this study to date. It is likely that as part of a planning application, a biodiversity gain assessment will be required. This will need to consider the baseline biodiversity value of the Site and the proposed post-development biodiversity value of the Site based on the proposed development layout, using the national Biodiversity Metric (currently Metric 4.0).
- 1.8 Recommendations for mitigation, compensation and enhancement are as follows:
  - New habitat creation may include flower-rich grassland and native tree and scrub.
  - Avoidance of buildings and vegetation removal during the bird nesting season (typically between March and August inclusive). Where this is not possible ecological supervision will be required.
  - Actions to prevent harm to hedgehog potentially using the site during the construction phase (e.g. care during vegetation removal). Provide gaps in new fences in the development to allow hedgehogs access through the Site.
  - Provision of bat and bird boxes.
  - Development of a lighting strategy to reduce impacts on local bat species.
  - Further bat mitigation measures may be required pending the outcome of the nocturnal bat survey of Building 1.

## 2 Introduction

#### Site description

- 2.1 The property, 60 Sheepwalk Lane, (hereafter referred to as the Site) is defined by the plan shown in Figure 1 and is located centrally in the village of Ravenshead, Nottinghamshire. The central Ordnance Survey Grid Reference is SK 55805 54833. The Site comprises of a bungalow, with surrounding hardstanding, vegetated gardens (mown grassland lawns) and ornamental shrub planting around the boundaries. There are several semi-mature tree standards in the gardens and a tall conifer hedgerow along the eastern boundary.
- 2.2 The Site is set within a suburban location and is bordered by residential buildings and gardens to all aspects with associated road infrastructure. Aerial photography (Google Earth Pro, accessed 31 October 2023) indicates that there are garden habitats with occasional mature trees within 250 m of the Site, but few blocks of semi-natural habitat. The nearest extensive area of semi-natural habitats is an area of woodland 250 m west but this does not have direct habitat connectivity to the Site.

#### Description of project

2.3 It is understood that the buildings at the Site will be demolished and replaced with a number of new residential properties. There are no redevelopment layouts available at this stage.

#### Aims of study

2.4 BSG Ecology was commissioned by AtkinsRealis in October 2023 to carry out a preliminary ecological appraisal including preliminary bat roost and nesting bird assessment. The aim of this study was to identify any ecological constraints to the proposed work, detail any further survey work that may be required, and make recommendations for initial mitigation and enhancement measures, as necessary.

## 3 Methods

#### Desk study

- 3.1 BSG Ecology obtained records from Nottinghamshire Biological & Geological Records Centre (NBGRC) of protected and notable species and non-statutory designated sites of biological conservation value for a 2 km radius of the Site. These data were provided on 31 October 2023.
- 3.2 The MAGIC.gov website was accessed on 05 November 2023 to identify any statutory designated sites and European Protected Species (EPS) licences issued by Natural England for bats and great crested newt *Triturus cristatus* within 2 km of the Site.
- 3.3 Aerial photography of the Site and its surroundings (Google Earth Pro, accessed 31 October 2023) was examined to further assist in understanding the context of the Site and to identify and assess possible linkages with other habitats or sites of ecological importance within the local area.

#### Field survey

- 3.4 The survey was undertaken by Principal Ecologist Daniel Foster MCIEEM, who holds a Natural England scientific survey licence for bats (Level 2 Class Licence ref. 2015-14980-CLS-CLS) on 01 November 2023.
- 3.1 Weather conditions were overcast with temperatures of 10°C. The Site was walked over to record and map the habitat type with reference to the UK Habitat System (UKHab Ltd, 2023).
- 3.2 As part of the extended habitat survey, a search was made for any evidence of protected species and habitats were assessed to determine their potential to support protected species. For example, searches were undertaken for evidence of badger *Meles meles* (such as setts, feeding remains, dung pits, hairs and tracks). The Site was also searched for the presence of invasive non-native plants, such as Japanese knotweed *Reynoutaria japonica*.
- 3.3 The buildings were externally and internally inspected, to assess their potential to support roosting bats and look for evidence of potential bat access points with reference to the Bat Conservation Trust guidance (Collins, 2023: in particular Chapter 5). Binoculars and a high-powered torch were used to aid this survey, and a note was made of any signs that might indicate the presence of bats. The buildings were also inspected for any evidence of nesting bird presence.

#### Consideration of limitations to methods

3.4 The habitat survey was undertaken outside the optimal botanical survey period. As such, not all plant species will have been readily identifiable. However, sufficient data was gathered to classify habitats and assess their suitability to support protected species.



## 4 Results and Evaluation

#### **Designated site**

#### Statutory designated sites

4.1 No statutory designated sites are located within 2 km of the Site.

#### Non-statutory designated sites

- 4.2 The data search returned details for seven Local Wildlife Sites (LWS): Newstead Park (including River Leen System) LWS; Thieves Wood LWS; Harlow Wood LWS; Trumpers Park Wood LWS; Little Rickets Lane Scrub LWS; Fountain Dale LWS; and Ravenhead Knoll LWS.
- 4.3 Newstead Park LWS is the closest to the Site, located 400 m to the west which is a 200 ha site, supporting a variety of habitats including woodlands. All other LWS are located over 1 km from the Site.
- 4.4 Owing to the small scale of the development and the distance to the non-statutory designated sites, direct and indirect impacts are not anticipated, and they are not considered further within this report.

#### Habitats

- 4.5 The following habitat description should be read in conjunction with Figure 1 presented in Section 7 and photographs in Section 8.
- 4.6 The Site is dominated by buildings, hardstanding and modified grassland. Within the Site there are domestic boundary hedgerows, ornamental shrub planting and several semi-mature trees.
- 4.7 A summary of each habitat at the Site is presented below. None are assessed as meeting the descriptions of Habitats of Principal Importance (HPIs)<sup>1</sup> in Maddock (2011).

#### Hard standing / buildings

- 4.8 The residential building (B1) is located centrally within the Site (Photographs 1 and 2). There is a block-paved driveway and parking area to the west of the bungalow which provides access to Sheepwalk Lane. There is a further area of paving to the rear of the bungalow, forming a patio. There are two garden sheds (B2 and B3) present in the rear garden to the east of the bungalow (Photograph 7). Further descriptions of the buildings are provided within the results of the preliminary bat roost appraisal section of this report.
- 4.9 The hardstanding and buildings are of negligible value as a habitat, but the buildings may offer opportunities to birds or bats, which is discussed separately.

#### Vegetated gardens

- 4.10 There are four parcels of vegetated gardens within the Site. These appear to be regularly mown grassland, which has resulted in a very short sward height.
- 4.11 Moss species, and particularly springy-turf moss *Rhytidiadelphus squarrosus*, are dominant with near 100% coverage. Grass species are occasional including red fescue *Festuca rubra* and a meadow-grass species *Poa sp*, with Yorkshire fog *Holcus lanatus* and creeping bent grass *Agrostis stolonifera* recorded rarely. Few herbs species are present, and typically include occasional

<sup>&</sup>lt;sup>1</sup> Habitats of Principal Importance in England are designated by Natural England in accordance within Section 41 of the Natural Environment and Rural Community Act 2006. They are described (as Priority Habitats) in Maddock (2011).

common daisy *Bellis perennis*, white clover *Trifolium repens* and chickweed *Stellaria media* with rarely recorded creeping buttercup *Ranunculus repens*, ribwort plantain *Plantago lanceolata*, yarrow *Achillea millefolium*, dandelion *Taraxacum* agg., and a hawkbit species *Leontodon sp.* 

- 4.12 A localised area of grassland approximately 6 m long by 2 m wide is present at Target Note 1 which is more characteristic of acidic soil conditions compared with the other grassland at the Site (Photograph 10). It is regularly mown and forms part of the garden lawn but includes a wider diversity of herbs such as cat's-ear species *Hypochaeris sp* and hawkbit species, mosses including common haircap moss *Polytrichum commune* and lichens including *Cladonia portentosa*. At the time of survey there were a number of fungi species present at Target Note 1 including fly agaric *Amanita muscaria*.
- 4.13 Vegetated grasslands are highly managed habitats of inherently low ecological value and are widely represented in locally and nationally; they do not conform to any Priority Habitat descriptions and are not an HPI.

#### Introduced shrub

4.14 Dense laurel species *Laurus sp* introduced shrub planting is present along the Site's western boundary adjacent to Sheepwalk Lane. This planting is up to 4 m in height and over 5 m in width. This habitat does not conform to any Priority Habitat descriptions and is not an HPI.

#### Hedgerows

- 4.15 Domestic hedgerows bound the Site's north, east and a section of the south boundaries. They are typically formed by beech *Fagus sylvatica* or laurel, with occasional hawthorn *Crataegus monogyna*, holly *Ilex aquifolium* or hazel *Corylus avellana*. The hedgerow along the eastern Site boundary is formed by Leyland cypress *Cupressus x leylandii* and is 10 m tall.
- 4.16 These hedgerows are domestic boundaries that do not contain 80% or more cover of native woody species. As such, they do not conform to any Priority Habitat descriptions and are not an HPI.

#### Trees

4.17 There are a number of semi-mature trees within the Site including silver birch *Betula pendula* and horse chestnut *Aesculus hippocastanum*. There are two dead semi-mature trees also present. None of the trees are veteran or ancient.

#### Invasive species

4.18 No non-native invasive plant species were recorded within the Site during the survey.

#### Protected / notable species

#### Badger

- 4.19 Five records of badger were provided by NBRGC within the search area, all of which were for road killed animals dated 2016 to 2020. All of these records are located over 1.5 km from the Site.
- 4.20 No evidence of badger activity was recorded on the Site at the time of survey. Suitable habitats for badger sett creation and foraging are restricted within the Site given the prevalence of buildings and hardstanding. Garden habitats could form part of a badger clans foraging resource, should they be present in the wider area.
- 4.21 The Site is bound by residential dwellings and associated infrastructure which, in this instance given the disturbance and amenity management, are considered provide sub-optimal badger sett habitat. Woodland habitats 250 m west of the Site represent the nearest optimal habitat for badger but are poorly connected to the Site.



4.22 Given the low level of habitat connectivity to off-site habitats and the sub-optimal terrestrial habitats present within the Site, the presence of badger within the Site and the potential for this species to be affected by the re-development is considered unlikely and they are not considered further within this report.

#### Bats

- 4.23 The MAGIC website identified three granted EPS licences for bats within the desk study boundary:
  - Licence reference 2015-8378-EPS-MIT permitted works to non-breeding roosts of common pipistrelle *Pipistrellus pipistrellus* soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared *Plecotus auritus* bats in 2015 located 690 m west of the Site.
  - Licence reference EPSM2010-2644 permitted works to non-breeding roosts of soprano pipistrelle and brown long-eared bats in 2011 located 1 km northwest of the Site.
  - Licence reference 2019-39221-EPS-MIT-1 permitted works to breeding roosts of soprano pipistrelle and brown long-eared bats in 2020 located 1.3 km south of the Site.
- 4.24 NBGRC provided 213 bat records within the desk study area dated from 1985 to 2022 with 171 of the records dated post-2000. Bat species recorded within 2 km of the Site include common pipistrelle, soprano pipistrelle, pipistrelle species, brown long-eared, noctule *Nyctalus noctula*, Leisler's bat *Nyctalus leisleri*, Daubenton's bat *Myotis daubentonii*, whiskered bat *Myotis mystacinus*, Natterer's bat *Myotis nattereri* and *Myotis* species.
- 4.25 From the pre-2000 records, there are two roost records near to the Site:
  - A pipistrelle species roost within a house 110 m south of the Site, dated 1987.
  - An unidentified bat species roost within a house 125 m east of the Site, dated 1991.
- 4.26 Of the post-2000 records, 72 records are located within 1 km of the Site, none of which were within or adjacent to the Site. There are 12 roost records of common pipistrelle, pipistrelle species, brown long-eared and unidentified bat species within 1 km of the Site; three of these roosts are within 500 m of the Site which are summarised below:
  - A pipistrelle species maternity roost within a house 220 m south of the Site, with records dated 2000 and 2008.
  - A pipistrelle species roost within a house 270 m south of the Site, dated 2014.
  - A pipistrelle species maternity roost within a house 330 m south of the Site, dated 2001.
- 4.27 The majority of the other records are either roosts located over 1 km from the Site, or are non-roost records.

#### Surrounding habitat

- 4.28 The land immediately surrounding the Site is characterised by residential buildings and minor road infrastructure which include streetlights and other artificial lighting sources; these are of limited value to foraging and commuting bats but do not present a significant barrier to bat dispersal. There are also vegetated gardens and trees adjacent to the Site, which would provide some foraging and commuting opportunities for bat species that are typically associated with sub-urban habitats, such as pipistrelle species bats.
- 4.29 The nearest extensive area of semi-natural habitats is an area of woodland 250 m west. Whilst this woodland does not have direct habitat connectivity to the Site, the residential buildings and infrastructure present do not form a significant barrier to bat dispersal.



#### Preliminary bat roost assessment

#### Building 1

- 4.30 Building 1 is a single-storey bungalow which is currently occupied and in a good state of repair. It is constructed from brick with a hipped concrete-tiled roof (Photographs 1 and 2). The roof eaves are overhanging and boxed with timber soffit boards. A single-storey flat-roofed extension is present on the eastern elevation which is partially clad on the upper wall sections with hanging tiles and lead flashing.
- 4.31 The roof is in reasonable condition but does presents a number of features that could be utilised by roosting bats. The potential bat roost features are summarised below:
  - Occasional gaps under roof and ridge tiles, which appeared from ground level to extend into cavities beneath the tile (Photograph 3).
  - Four holes that allow bat access into the soffits. Two are formed where a metal ventilation grill is missing, and two where there gaps in the adjacent brickwork (Photographs 4, 5 and 6).
  - Occasional gaps under the lead flashing that is fitted over the top course of hanging tiles on the flat roof extension.
- 4.32 Internally within Building 1 the loft areas have been converted into living space. An internal inspection for bat roosting suitability or evidence was therefore not undertaken.
- 4.33 No external evidence of roosting bats was recorded at the time of survey, however, the potential roost features summarised above could not be comprehensively inspected. It was noted, however, that the gaps associated with the soffit boxes were typically clear of cobwebs and other debris.
- 4.34 The habitats surrounding the Site are largely suboptimal for certain bat species but are suitable for species typically associated with suburban habitats, such as pipistrelle bats; this is supported by the results of the desk study that have highlighted a number of pipistrelle bat roosts (including maternity roosts) in residential properties near to the Site in similar habitats. Building 1 is largely in a reasonable state of repair, although several potential bat access points are present on the roof areas. On this basis, it is considered to offer Low bat roost suitability with reference to industry bat survey guidelines (Collins, 2023).

#### Buildings 2 and 3

4.35 Buildings 2 and 2 are small garden sheds constructed from timber with pitched felt covered roofs (Photograph 7). They do not support any cavities or crevices suitable for roosting bats and are considered to provide negligible bat roosting suitability.

Trees

- 4.36 There is one tree within the Site that has bat roost suitability. This is a horse chestnut (T1) located adjacent to the eastern boundary, that supports a large split in the bark from ground level up to 4 m in height, which creates a shallow bark plate which an individual bat could roost behind (Photograph 8 and 9). The feature was inspected as far as possible from the ground using a torch and no evidence of bats was observed, and the feature was noted to be extremely damp and heavily cobwebbed. On this basis, tree T1 it is considered to offer potential roost features for individual bats (PRF-I) with reference to industry bat survey guidelines (Table 6.2 in Collins, 2023), and is of low overall suitability.
- 4.37 There are two semi-mature dead trees within the gardens to the west of the house, both of which support small areas of lifted bark. These features are small and shallow and do not create a potential roost feature for bats.



#### Great crested newt

- 4.38 The MAGIC website did not identify any granted EPS licences for great crested newt within the desk study area.
- 4.39 NBGRC provided two records of great crested newt within the desk study area for the same location 1.9 km southwest of the Site dated 2021. This record is separated from the Site by built development including buildings, roads and associated infrastructure which are considered highly likely to provide a physical barrier to amphibian movement between the record location and the Site.
- 4.40 No ponds are present within the Site and none were identified on Ordnance Survey mapping within 250 m of the Site.
- 4.41 The hardstanding, mown grassland and buildings which form the majority of the Site are considered to be sub-optimal terrestrial habitat for great crested newt as they offer few potential opportunities for rest or shelter.
- 4.42 Given all the above, the presence of great crested newt within the Site and the potential for this species to be affected by the development is considered unlikely and they are not considered further within this report.

#### Nesting birds

- 4.43 Many of the potential bat access features on the roof of the bungalow (Building 1) are considered to be too narrow for birds to access. The gaps present into the soffit boxes would allow nesting birds to exploit this feature.
- 4.44 The sheds (Buildings 2 and 3) were considered to be suboptimal for nesting birds as they do not offer nesting opportunities.
- 4.45 The trees, introduced shrubs and hedgerows within the gardens have the potential to support nesting birds. No evidence of current or historic nests were identified during the survey; however, a thorough search was not completed.

#### Other protected / notable species

4.46 No other signs of protected or notable species were identified during the survey, however, the garden has the potential to support foraging hedgehog *Erinaceus europaeus*, which may move in and out of the Site underneath hedgerows and ornamental shrub planting as part of a wider habitat resource in the local area. NBGRC provided 44 records of European hedgehog *Erinaceus europaeus*, with the closest to the Site located 400 m southeast dated 2022, which indicates that they are likely to be present in the local area.

## 5 **Potential Impacts and Recommendations**

#### **Designated sites**

5.1 Given the small scale and localised nature of the re-development proposals and the geographical separation from the Site, no direct or indirect impacts upon designated sites are anticipated and no further consideration is necessary.

#### Habitats

- 5.2 The habitats on Site are characterised by buildings, hardstanding, trees, ornamental shrub and vegetated gardens with close mown grassland. None of these habitats conforms to the definition of a Habitat of Principal Importance/Priority Habitat type (BRIG, Ed Ant Maddock 2011).
- 5.3 The buildings, hardstanding, ornamental shrub and grassland habitats are not considered to be significant beyond the immediate context of the Site and any loss is not considered to be a constraint. The area of grassland at Target Note 1 has increased floristic diversity compared to the rest of the grassland but it is localised and small in size, and its loss is not considered to be significant or to give rise to an ecological impact beyond the Site.
- 5.4 It is recommended that the loss of the existing habitats is compensated for within areas of open space in the scheme by using an appropriate grassland seed mix<sup>2</sup> with a suitable management regime to encourage a taller sward height and allow wildflowers to persist and set seed. General habitat enhancement within the new landscape scheme could also include planting native, nectarrich plant species and mixed native species scrub to be of maximum benefit for pollinating insects and other wildlife.
- 5.5 The development design should seek to retain trees and boundary hedgerows where feasible. However, it is possible that works to or removal of mature and semi-mature trees may be necessary. None of the trees within the Site is assessed to be veteran trees, and, overall, their loss is not considered to be significant or to give rise to an ecological impact beyond the Site. As there are limited semi-natural features within and around the Site, it is recommended that any loss of trees should be compensated for through replacement native species tree planting.

#### Biodiversity net gain

- 5.6 The Environment Act 2021 includes the provision of mandatory biodiversity gain for developments in England; this will be mandated through an amendment to the Town and Country Planning Act 1990. The two-year transition period following Royal Assent (November 2021) means that mandatory biodiversity gain will become law in January 2024. This will require, amongst other things, the provision of a required percentage of biodiversity gain, currently set nationally to be at 10% and the use of the national Biodiversity Metric to calculate the biodiversity gain, currently Metric 4.0.
- 5.7 Local Plan<sup>3</sup> Policy 18 relates to protecting and enhancing biodiversity. This policy states *"Wherever possible, development proposals will be expected to take opportunities to incorporate biodiversity in and around development and contribute to the establishment and maintenance of green infrastructure"*. Aligned Core Strategy Policy 17 (1) covers the need to protect and enhance existing areas of biodiversity interest, including the areas and networks of habitats and species listed under section 41 of the Natural Environment and Rural Communities Act and in the Nottinghamshire Local Biodiversity Action Plan and further detailed policy on protecting and enhancing biodiversity deliver multi-functional benefits and contribute to Gedling Borough's biodiversity, both as part of on-site development proposals or off site provision.

<sup>&</sup>lt;sup>2</sup> For example <u>https://wildseed.co.uk/mixtures/view/56</u> and <u>https://wildseed.co.uk/mixtures/view/3</u>

<sup>&</sup>lt;sup>3</sup> Gedling Borough Local Planning Document Part 2 Local Plan



5.8 A biodiversity net gain assessment has not been completed as part of this study to date. It is likely that as part of a planning application, a biodiversity gain assessment will be required. This will need to consider the baseline biodiversity value of the Site and the proposed post-development biodiversity value of the Site based on the proposed development layout, using the national Biodiversity Metric (currently Metric 4.0).

#### Bats

- 5.9 All UK bats are European Protected Species (EPS) under the Conservation of Habitats and Species Regulations 2017 (as amended) and under the Wildlife and Countryside Act 1981 (as amended. Several species of bat are Species of Principal Importance under the provisions of the Natural Environment and Rural Communities (NERC) Act 2006. Bats are protected against disturbance, killing or injuring and their roosts are protected against obstruction, damage or destruction. A bat roost may be any structure a bat uses for breeding, resting, shelter or protection. It is important to note that since bats tend to re-use the same roost sites, a bat roost is typically considered to be protected from damage or destruction whether or not the bats are present at the time. Appendix 1 provides further details of the relevant legislation.
- 5.10 The main bungalow (Building 1) has been assessed to have Low bat roosting potential. The proposed demolition would affect the potential access points which likely extend into the soffit boxes, cavity walls and under roof / ridge tiles and as such could conceal evidence of roosting bats. Without further survey work to determine the use of Building 1 by bats and without mitigation that may be required (as informed by the further surveys), the works carry a risk of damaging or destroying bat roosts and disturbing or harming bats should they be present.
- 5.11 In order to inform the proposed works at the design stage, taking into account their legal protection, further survey is required to gather sufficient baseline information on the status of roosting bats. The survey outcomes and the proposed works can then be assessed together to identify the necessary avoidance, mitigation, compensation and enhancement measures required, and to inform the planning application, as all species of bat are a material consideration in the planning process.
- 5.12 With reference to guidelines from the Bat Conservation Trust (Collins, 2023), a building assessed as having Low bat roosting potential typically recommends that one bat activity survey is undertaken to determine the presence / likely absence of roosting bats. The nocturnal bat survey should be undertaken during the period May to August (inclusive). If a bat roost is confirmed, further survey is likely to be required to characterise the roost.
- 5.13 The garden sheds (Buildings 2 and 3) have negligible bat roost suitability, and no further survey or mitigation is considered necessary.
- 5.14 Tree 1 is assessed as having low roost suitability (PRF-I). If this tree is to be removed, or have remedial works undertaken, further survey is not required but the works should be completed in a precautionary manner. This would include contractors being mindful of the potential presence of bats, and inspecting the lifted areas with a torch prior to works. If any bats or evidence of bats is encountered, works should stop and further ecological advice should be sought.
- 5.15 The hardstanding, buildings and grassland are considered to provide limited value to foraging and commuting bats and their loss is unlikely to have a significant effect on local bat populations.
- 5.16 The on-site trees, hedgerows and shrubs may provide a minor foraging resource for local bats and should be retained where possible. Where vegetation loss is required, it is considered unlikely to have a significant effect on local bat populations given the small scale of the loss and presence of higher suitability habitats in the local area.
- 5.17 Streetlights are present adjacent the Site's western boundaries; measures to avoid additional impacts from artificial lighting should be implemented with reference to the NPPF paragraph 180c) and guidance from the Institute of Lighting Professionals (ILP, 2023). New external lighting should be minimised as part of the development proposals and avoid illuminating any retained trees and boundary hedgerows and bat enhancement or mitigation measures (if required).



5.18 Further bat mitigation measures may be required which will be informed by the outcome of further relevant survey work and assessment.

#### **Nesting birds**

- 5.19 All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended), which makes it an offence to 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.
- 5.20 No evidence of current or historic bird nesting was recorded within the Site at the time of survey. However, the buildings, trees, hedgerows and ornamental shrub planting provide potential opportunities for nesting birds.
- 5.21 If the work is carried out during the breeding bird season, then the demolition of the buildings, clearance of introduced shrub and tree pruning / removal could have an adverse impact on active nests and any eggs, chicks or adult birds if present. As a guide, the bird nesting season is generally between March and August inclusive; dates vary by species and can be affected by prevailing weather conditions. Some species may start nesting as early as February.
- 5.22 It is recommended that, where possible, any demolition work, introduced shrub clearance or tree pruning / removal is carried out between September and February, in order to avoid the bird breeding season. If such work must take place during the bird breeding season it is recommended that the buildings, trees or introduced shrubs are inspected for active bird nests by a suitably qualified ecologist before the work is carried out. If active bird nests are present, then works that would affect the nest would need to be delayed until nesting activity has ceased.

#### European hedgehog

- 5.23 European hedgehog is listed as a Species of Principal Importance under the provisions of the NERC Act 2006.
- 5.24 Suitable habitat for hedgehog is present on-site within the grassland that provides suitable foraging habitat and the hedgerows and ornamental shrub planting which has a more densely vegetated base, provides suitable foraging and shelter opportunities for hedgehog. The potential loss of small areas suitable habitat from this Site is not considered to be significant given the extent of additional surrounding habitat.
- 5.25 Given the existing records for European hedgehog and the potential use of the Site's habitats by this species, the following measures are proposed:
  - Care should be taken during vegetation removal operations to avoid disturbance or killing/injury. Any hedgehogs found on Site will be moved to suitable habitat in a safe place away from construction activities.
  - Gaps of suitable dimensions (130 mm x 130 mm<sup>4</sup>) should be provided at the foot of permanent perimeter and boundary fences at selected points to permit the movement of hedgehog around the Site post-construction.
  - Information relating to the purpose of the gaps in boundary fences should be provided to new occupants (for example within a welcome pack or through the provision of sign plates above gaps) to discourage blocking of these gaps either accidentally or intentionally.

#### Enhancement

5.26 The National Planning Policy Framework (NPPF) encourages incorporating biodiversity in and around development. Given the current low ecological value of the Site, the following ecological mitigation and enhancement measures are considered reasonable and proportionate:

<sup>&</sup>lt;sup>4</sup> Gaps of this dimension will allow hedgehogs to pass through, but will be too small to allow passes by most household pets.



- New landscape planting should incorporate native, nectar-rich plant species to be of maximum benefit for pollinating insects and other wildlife.
- A total of two bird nest boxes and two bat boxes should be installed upon retained trees or incorporated into the fabric of the new properties as appropriate.
- 5.27 Further mitigation measures for bats may be required; such measures will be informed by the outcome of further relevant survey work and assessment.



## 6 References

BRIG (ed. Ant Maddock) (2008), (Updated Dec 2011), UK Biodiversity Action Plan; Priority Habitat Descriptions

Bing maps <a href="https://www.bing.com/maps">https://www.bing.com/maps</a> (accessed 07/11/23)

Collins, J. (ed.) (2023) Bat Surveys for Professional Ecologists: Good Practice Guidelines (4<sup>th</sup> Edition). The Bat Conservation Trust, London.

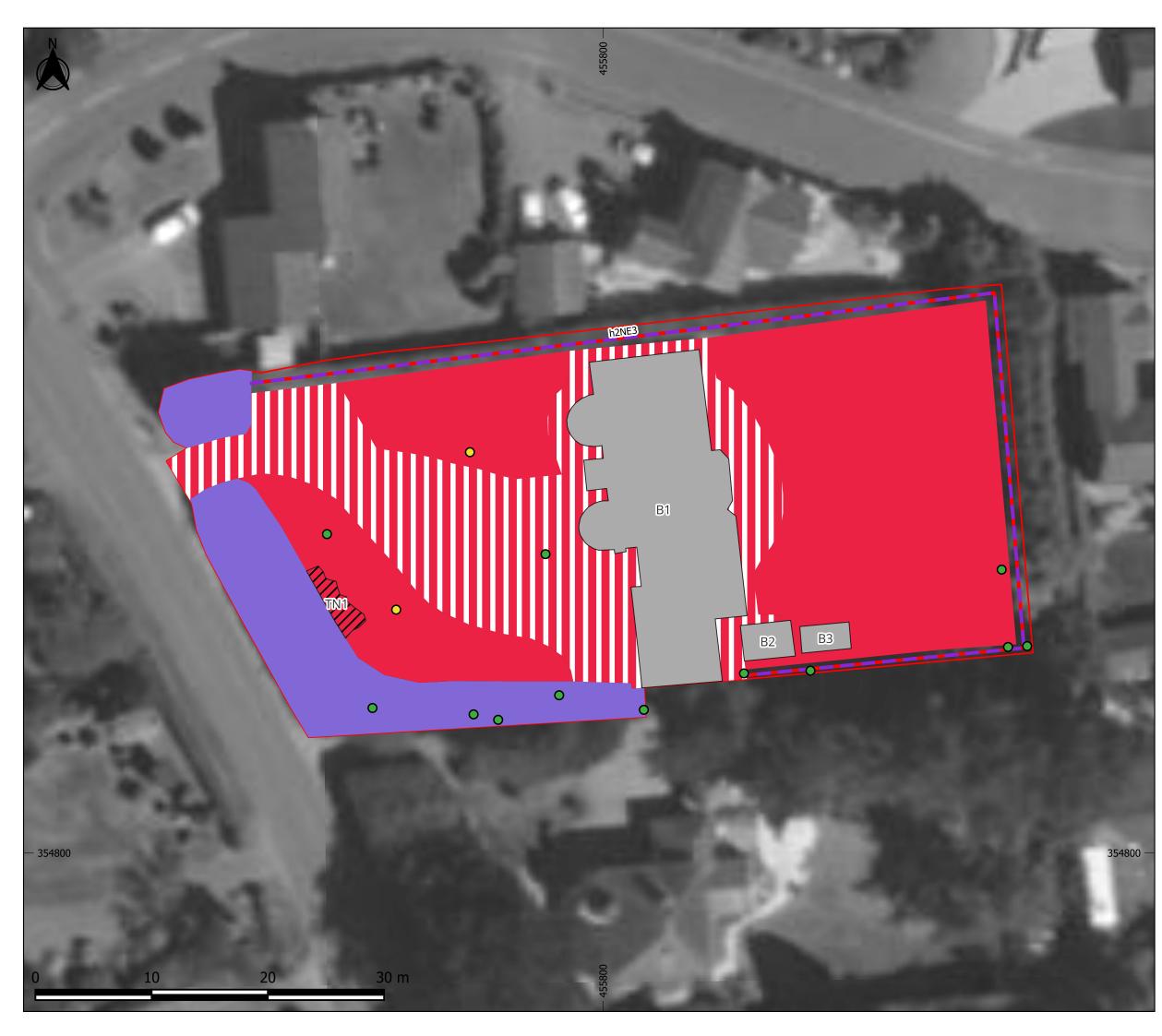
Multi-Agency Geographic Information for the Countryside (MAGIC) <u>http://www.magic.gov.uk/</u> (accessed 07/11/23)

Institution of Lighting Professionals (2023). Guidance Note 08/23. Bats and Artificial Lighting in the UK. Bats and the Built Environment Series.

UK Habitat Classification Working Group (2018) UK Habitat Classification – Habitat Definitions V1.0 at http://ecountability.co.uk/ukhabworkinggroup-ukhab



## 7 Figures



Legend

• Tree

O Dead tree

- Hedge Ornamental Non Native (h2NE3)
- Developed land; sealed surface
- Introduced shrub
- Vegetated garden

Buildings

Z Target Note

Site boundary



OFFICE: DERBYSHIRE T: 01433 651869

JOB REF: P23-810

PROJECT TITLE
60 SHEEPWALK LANE

DRAWING TITLE Figure 1: Habitat Map

DATE: 06/11/2023
DRAWN: LB

CHECKED: DF

SCALE: 1:300 VERSION:1.0

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Projection: OSGB 1936/British National Grid - EPSG 27700

Sources: BSG Ecology survey data





Photograph 1: west elevation of the bungalow (Building 1) showing the vegetated gardens (mown grassland and trees).



Photograph 2: east elevation of the bungalow (Building 1) and flat-roofed extension also showing the vegetated garden.





Photograph 3: Example of gaps under roof and ridge tiles (circled red) that could provide bat access.



Photograph 4: Gaps in the brickwork (circled red) that could provide bat / bird access into the soffits.



Photograph 5 (left) showing missing ventilation cover and Photograph 6 (right) showing gap in the brickwork that could provide bat / bird access into the soffits.



Photograph 7: Wooden garden sheds (Buildings 2 and 3).



Photograph 8 (left) showing Tree 1 which has low bat roost potential in the form of lifted bark which is shown on Photograph 9 (right).



Photograph 10: vegetated garden with Target Note 1 area at the foreground.

## Appendix 1: Summaries of Relevant Policy, Legislation and Other Instruments

8.1 This section briefly summarises the legislation, policy and related issues that are relevant to the main text of the report. The following text does not constitute legal or planning advice.

#### National Planning Policy Framework (England)

- 8.2 The Government issued the National Planning Policy Framework (NPPF) in July 2021. Text excerpts from the NPPF are shown where they may be relevant to planning applications and biodiversity including protected sites, habitats and species.
- 8.3 The Government sets out the three objectives for sustainable development (economy, social and environmental) at paragraphs 8-10 to be delivered through the plan preparation and implementation level and 'are not criteria against which every decision can or should be judged' (paragraph 9). The planning system's environmental objective is 'to protect and enhance our natural, built and historic environment; including making effective use of land, improving biodiversity...'(paragraph 8c).
- 8.4 In conserving and enhancing the natural environment, the NPPF (Paragraph 174) states that 'planning policies and decisions should contribute to and enhance the natural and local environment' by:
  - Protecting and enhancing...sites of biodiversity value... '(in a manner commensurate with their statutory status or identified quality in the development plan)'.
  - Recognising the wider benefits from natural capital and ecosystem services including trees and woodland.
  - Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures.
  - Preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability.
- 8.5 In respect of protected sites, at paragraph 175, the NPPF requires local planning authorities to distinguish, at the plan level, '...between the hierarchy of international, national and locally designated sites; allocate land with the least environmental or amenity value...take a strategic approach to maintaining and enhancing networks of habitats and green infrastructure; and plan for the enhancement of natural capital at a catchment or landscape scale across local authority boundaries.' A footnote to paragraph 175 refers to the preferred use of agricultural land of poorer quality if significant development of agricultural land is to take place.
- 8.6 Paragraph 179 refers to how plans should aim to protect and enhance biodiversity. Plans should: 'identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity [a footnote refers to ODPM Circular 06/2005 for further guidance in respect of statutory obligations for biodiversity in the planning system], wildlife corridors and stepping stones that connect them and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation;' and to 'promote the conservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.'
- 8.7 Paragraph 180 advises that, when determining planning applications, '…local planning authorities should apply the following principles:

- 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;
- 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;
- 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
- 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.'
- 8.8 In paragraph 181, the following should be given the same protection as habitats sites:
  - potential Special Protection Areas and possible Special Areas of Conservation;
  - listed or proposed Ramsar sites; and

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- 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.'
- 8.9 In paragraph 182 the NPPF refers back to sustainable development in relation to appropriate assessment and states: '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'.
- 8.10 In paragraph 183, the NPPF refers to planning policies and decisions taking account of ground conditions and risks arising from land instability and contamination at sites. In relation to risks associated with land remediation account is to be taken of 'potential impacts on the natural environment' that arise from land remediation.
- 8.11 In paragraph 185 the NPPF states that planning policies and decisions should ensure that development is appropriate to the location and take into account likely effects (including cumulative) on the natural environment and, in doing so, they 'should limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation' (paragraph 185c).

## Government Circular ODPM 06/2005 Biodiversity and Geological Conservation (England only)

8.12 Paragraph 98 of Government Circular 06/2005 advises that "the presence of a protected species is a material consideration when a planning authority is considering a development proposal that, if carried out, would be likely to result in harm to the species or its habitat. Local authorities should consult Natural England before granting planning permission. They should consider attaching appropriate planning conditions or entering into planning obligations under which the developer would take steps to secure the long-term protection of the species. They should also advise developers that they must comply with any statutory species' protection provisions affecting the site concerned..."



8.13 Paragraph 99 of Government Circular 06/2005<sup>5</sup> advises that "it is essential that the presence or otherwise of protected species, and the extent that they may be affected by the proposed development, is established before the planning permission is granted, otherwise all relevant material considerations may not have been addressed in making the decision. The need to ensure ecological surveys are carried out should therefore only be left to coverage under planning conditions in exceptional circumstances, with the result that the surveys are carried out after planning permission has been granted".

#### Standing Advice (GOV.UK - England only)

- 8.14 The GOV.UK website provides information regarding protected species and sites in relation to development proposals: 'Local planning authorities should take advice from Natural England or the Environment Agency about planning applications for developments that may affect protected species.' GOV.UK advises that 'some species have standing advice which you can use to help with planning decisions. For others you should contact Natural England or the Environment Agency for an individual response.'
- 8.15 The standing advice (originally from Natural England and now held and updated on GOV.UK6) provides advice to planners on deciding if there is a 'reasonable likelihood' of protected species being present. It also provides advice on survey and mitigation requirements.
- 8.16 When determining an application for development that is covered by standing advice, in accordance with guidance in Government Circular 06/2005, Local planning authorities are required to take the standing advice into account. In paragraph 82 of the aforementioned Circular, it is stated that: 'The standing advice will be a material consideration in the determination of the planning application in the same way as any advice received from a statutory consultee...it is up to the planning authority to decide the weight to be attached to the standing advice, in the same way as it would decide the weight to be attached to a response from a statutory consultee..'

#### The Environment Act 2021

- 8.17 The Environment Act includes the provision of mandatory biodiversity gain for developments in England; this will be mandated through an amendment to the Town and Country Planning Act 1990. The two-year transition period following Royal Assent (November 2021) means that mandatory biodiversity gain will become law in autumn 2023. This will require:
  - The provision of a required percentage of biodiversity gain, currently set nationally to be at 10%
  - The use of the national Defra Biodiversity Metric to calculate the biodiversity gain, currently Metric 3.1
  - The provision of a biodiversity gain plan to demonstrate how biodiversity gain will be delivered on and or off-site; statutory instruments and regulations are in preparation by Defra and Natural England to provide templates for reporting
  - Biodiversity gain will be secured for a fixed period, currently nationally set at 30 years
  - Demonstration of how the biodiversity gain will be secured; conservation covenants will be used to deliver this which are in preparation by Defra and Natural England
  - A national register of land used for biodiversity gain will be established; this will involve setting up a new biodiversity credits market, the approach for which is in preparation by Defra and Natural England

NB. The policy basis for net gain is already set out in the NPPF. During the transition period, we would expect local planning authorities to increasingly require the measures set out within the Environment Act as part of their development decision making process.

<sup>&</sup>lt;sup>5</sup> ODPM Circular 06/2005. Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impacts within the Planning System (2005). HMSO Norwich.

<sup>&</sup>lt;sup>6</sup> https://www.gov.uk/guidance/protected-species-how-to-review-planning-applications#standing-advice-for-protected-species

# Natural Environment and Rural Communities (NERC) Act 2006 – Habitats and species of principal importance (England)

- 8.18 The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 41 (S41) of the Act require the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The list has been drawn up in consultation with Natural England as required by the Act. In accordance with the Act the Secretary of State keeps this list under review and will publish a revised list if necessary, in consultation with Natural England.
- 8.19 The S41 list is used to guide decision-makers such as public bodies, including local authorities and utilities companies, in implementing their duty under Section 40 of the NERC Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal functions, including development control and planning. This is commonly referred to as the 'Biodiversity Duty.'
- 8.20 Guidance for public authorities on implementing the Biodiversity Duty<sup>7</sup> has been published by Defra. One of the key messages in this document is that 'conserving biodiversity includes restoring and enhancing species populations and habitats, as well as protecting them.' In England the administration of the planning system and licensing schemes are highlighted as having a 'profound influence on biodiversity conservation.' Local authorities are required to take measures to "promote the preservation, restoration and re-creation of priority habitats, ecological networks and the protection and recovery of priority species. The guidance states that 'the duty aims to raise the profile and visibility of biodiversity, clarify existing commitments with regard to biodiversity, and to make it a natural and integral part of policy and decision making.'
- 8.21 In 2007, the UK Biodiversity Action Plan (BAP) Partnership published an updated list of priority UK species and habitats covering terrestrial, freshwater and marine biodiversity to focus conservation action for rarer species and habitats in the UK. The UK Post-2010 Biodiversity Framework<sup>8</sup>, which covers the period from 2011 to 2020, now succeeds the UK BAP. The UK priority list contained 1150 species and 65 habitats requiring special protection and has been used as a reference to draw up the lists of species and habitats of principal importance in England.
- 8.22 In England, there are 56 habitats of principal importance and 943 species of principal importance on the S41 list. These are all the habitats and species found in England that were identified as requiring action in the UK BAP and which continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework.

#### European protected species (Animals)

- 8.23 The Conservation of Habitats and Species Regulations 2017 (as amended) consolidates various amendments that have been made to the original (1994) Regulations which transposed the EC Habitats Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (Council Directive 92/43/EEC) into national law.
- 8.24 "European protected species" (EPS) of animal are those which are shown on Schedule 2 of the Conservation of Habitats and Species Regulations 2017 (as amended). They are subject to the provisions of Regulation 43 of those Regulations. All EPS are also protected under the Wildlife and Countryside Act 1981 (as amended). Taken together, these pieces of legislation make it an offence to:
  - a. Intentionally or deliberately capture, injure or kill any wild animal included amongst these species
  - b. Possess or control any live or dead specimens or any part of, or anything derived from a these species
  - c. deliberately disturb wild animals of any such species

<sup>&</sup>lt;sup>7</sup> Defra, 2007. Guidance for Public Authorities on Implementing The Biodiversity Duty.

<sup>(</sup>http://www.defra.gov.uk/publications/files/pb12585-pa-guid-english-070516.pdf)

<sup>&</sup>lt;sup>8</sup> JNCC and Defra (on behalf of the Four Countries' Biodiversity Group). 2012. UK Post-2010 Biodiversity Framework. July 2012. (<u>http://incc.defra.gov.uk/page-6189</u>)

- d. deliberately take or destroy the eggs of such an animal, or
- e. intentionally, deliberately or recklessly damage or destroy a breeding site or resting place of such an animal, or obstruct access to such a place
- 8.25 For the purposes of paragraph (c), disturbance of animals includes in particular any disturbance which is likely
  - a. to impair their ability
    - i. to survive, to breed or reproduce, or to rear or nurture their young, or
    - ii. in the case of animals of a hibernating or migratory species, to hibernate or migrate; or
  - b. to affect significantly the local distribution or abundance of the species to which they belong.
- 8.26 Although the law provides strict protection to these species, it also allows this protection to be set aside (derogated) through the issuing of licences. The licences in England are currently determined by Natural England (NE) for development works and by Natural Resources Wales in Wales. In accordance with the requirements of the Regulations (2017, as amended), a licence can only be issued where the following requirements are satisfied:
  - a. The proposal is necessary 'to preserve public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment'
  - b. 'There is no satisfactory alternative'
  - c. The proposals 'will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

#### Definition of breeding sites and resting places

8.27 Guidance for all European Protected Species of animal, including bats and great crested newt, regarding the definition of breeding and of breeding and resting places is provided by The European Council (EC) which has prepared specific guidance in respect of the interpretation of various Articles of the EC Habitats Directive.<sup>9</sup> Section II.3.4.b) provides definitions and examples of both breeding and resting places at paragraphs 57 and 59 respectively. This guidance states that 'The provision in Article 12(1)(d) [of the EC Habitats Directive] should therefore be understood as aiming to safeguard the ecological functionality of breeding sites and resting places.' Further the guidance states: 'It thus follows from Article 12(1)(d) that such breeding sites and resting places also need to be protected when they are not being used, but where there is a reasonably high probability that the species concerned will return to these sites and places. If for example a certain cave is used every year by a number of bats for hibernation (because the species has the habit of returning to the same winter roost every year), the functionality of this cave as a hibernating site should be protected in summer as well so that the bats can re-use it in winter. On the other hand, if a certain cave is used only occasionally for breeding or resting purposes, it is very likely that the site does not qualify as a breeding site or resting place.'

#### Birds

8.28 All nesting birds are protected under Section 1 of the Wildlife and Countryside Act 1981 (as amended) 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 to this, for some rarer species (listed on Schedule 1 of the Act), it is an offence to disturb them whilst they are nest building or at or near a nest with eggs or young, or to disturb the dependent young of such a bird.

<sup>&</sup>lt;sup>9</sup> Guidance document on the strict protection of animal species of Community interest under the Habitats Directive 92/43/EEC. (February 2007), EC.



- 8.29 The Conservation of Habitats and Species Regulations 2017 (as amended) places duties on competent authorities (including Local Authorities and National Park Authorities) in relation to wild bird habitat. These provisions relate back to Articles 1, 2 and 3 of the EC Directive on the conservation of wild birds (2009/147/EC, 'Birds Directive'<sup>10</sup>) (Regulation 10 (3)) requires that the objective is the 'preservation, maintenance and re-establishment of a sufficient diversity and area of habitat for wild birds in the United Kingdom, including by means of the upkeep, management and creation of such habitat, as appropriate, having regard to the requirements of Article 2 of the new Wild Birds Directive...' Regulation 10 (7) states: 'In considering which measures may be appropriate for the purpose of security or contributing to the objective in [Regulation 10 (3)] Paragraph 3, appropriate account must be taken of economic and recreational requirements'.
- 8.30 In relation to the duties placed on competent authorities under the 2017 Regulations, Regulation 10 (8) states: 'So far as lies within their powers, a competent authority in exercising any function [including in relation to town and country planning] in or in relation to the United Kingdom must use all reasonable endeavours to avoid any pollution or deterioration of habitats of wild birds (except habitats beyond the outer limits of the area to which the new Wild Birds Directive applies).'

<sup>&</sup>lt;sup>10</sup> 2009/147/EC Birds Directive (30 November 2009. European Parliament and the Council of the European Union.