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## Ecological Assessment

**28 Avenue Road, Camden**

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**12<sup>th</sup> March 2020**

**Project No: P3239**

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## **Report Summary**

1. The Ecology Co-op has been commissioned by SHH Architecture & Interior Design to undertake a Preliminary Ecological Appraisal and Bat Scoping survey at 28 Avenue Road, Camden. A site walkover survey visit was carried out by senior ecologist Xenia Snowman BSc (Hons) and assistant ecologist Charlie Gardiner BSc (Hons), a qualifying member of CIEEM on the 11<sup>th</sup> February 2020, to evaluate the site for notable habitats and their potential to support EU and UK protected/notable species. The purpose of this report is to record the findings of the survey and identify potential ecological constraints to a proposal involving the construction of a large two storey residential dwelling and associated landscaping of the gardens including recreational areas such as an improved tennis court with single storey pavilion, pool house and associated swimming pool.
2. A single building exists within the site and comprises a gatehouse at the entrance to the site. The site is currently used as private gardens with ornamental flowerbeds, mature trees and shrubs. The wider landscape, neighbouring the northern boundary of the site consists of Primrose Hill which is open parkland with a scattered mature trees.
3. There are two designated sites: Adelaide and St Johns Wood Church Grounds Local Nature Reserves (LNRs) within 1km of the site. These sites are not likely to be impacted by the proposed development plans as they are 900m from the site boundary and separated by private residential dwellings with well-maintained landscaped gardens in a busy, suburban environment.
4. There are six non- statutory Sites of Nature Conservation Importance (SNCIs) within the 1km search area. The closest is Primrose Hill SNCI which exists to the immediate north of the site.
5. During the walkover survey, the gatehouse building was assessed as having ‘low’ potential for roosting bats. At present, no planned exterior alterations are scheduled for the gatehouse and therefore the building does not require any further surveys. In the future, if any proposed plans change to include the exterior of the gatehouse, it would be required to conduct a single emergence/re-entry survey between May to August to assess whether bats are using this building for roosting.
6. The ivy covered, mature trees across the site should be climbed and assessed by a suitably qualified bat ecologist to investigate the presence of roosting bat features that are currently concealed from ground level.
7. Vegetation clearance particularly of the fallen oak in the centre of the site and ivy covered mature trees should be timed outside the nesting bird period which is between (1<sup>st</sup> March – 31<sup>st</sup> August) unless a search by a suitably qualified ecologist confirms the absence



of any active nests.

8. If any active nests are found, a temporary barrier fence should be placed around the active nest to ensure a 5m exclusion zone protects the nest until such time that nesting activity is deemed to have ceased.
9. The decaying log piles near to the gatehouse should be checked by an ecologist for any stag beetles *Lucanus cervus* before being removed to an onsite area away from the construction zone.
10. If the north-eastern corner of the site is to be re-landscaped, supervised removal with the presence of an ecologist of the stacked brash pile next to the tennis court should be undertaken to ensure that no badger *Meles meles* setts are present.
11. A precautionary search for hedgehogs *Erinaceus europaeus* that are either hibernating during the winter or resting during the day should be undertaken alongside the north-eastern boundary and the potting sheds where the garden is less well-kept. As part of the proposed plans, the implementation of new boundary fencing should include 'hedgehog holes' at selected intervals to aid the passage of hedgehogs around the local area.
12. In line with the NPPF guidelines the sites ecological value should be enhanced. This can be achieved through the application of 2 bird boxes, 2 bat boxes and a bug hotel in retained mature trees or vegetation outside the construction area. Further detail is provided in Section 5.

This report has been prepared by The Ecology Co-operation Ltd, with all reasonable skill, care and diligence within the terms of the Contract with the client. This report only becomes the property of the client once payment for it has been received in full.

We disclaim responsibility to the client and others in respect of any matters outside the scope of the above.



This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.



## CONTENTS PAGE

<b>1</b>	<b>INTRODUCTION.....</b>	<b>1</b>
1.1	Purpose of the Report .....	1
1.2	Background .....	1
1.3	Policy and Legislation .....	3
<b>2</b>	<b>METHODOLOGY.....</b>	<b>3</b>
2.1	Desk Study .....	3
2.2	Field Survey .....	4
2.3	Badgers .....	4
2.4	Bats .....	4
2.5	Breeding Birds.....	5
2.6	Dormice .....	5
2.7	Great Crested Newt .....	5
2.8	Reptiles .....	6
2.9	Other Notable Species .....	6
<b>3</b>	<b>BASELINE CONDITIONS .....</b>	<b>6</b>
3.1	Designated Sites and Granted EPS Licences .....	6
3.2	Habitats .....	10
3.3	Badgers .....	13
3.4	Bats .....	15
3.5	Breeding Birds.....	17
3.6	Dormice .....	17
3.7	Great Crested Newts and Other Amphibians .....	18
3.8	Reptiles .....	18
3.9	Invasive Non-native Species.....	18
3.10	Other Notable Species .....	18
3.11	Survey Limitations.....	19
<b>4</b>	<b>IMPACT APPRAISAL.....</b>	<b>19</b>
4.1	Designated Sites .....	19
4.2	Habitats .....	19
4.3	Badgers .....	20
4.4	Bats .....	20
4.5	Breeding Birds.....	21
4.6	Great Crested Newts.....	21
4.7	Reptiles .....	21
4.8	Other Notable Species .....	21
<b>5</b>	<b>OPPORTUNITIES FOR ENHANCEMENT.....</b>	<b>22</b>
<b>6</b>	<b>CONCLUSIONS.....</b>	<b>23</b>
	<b>APPENDIX 1 – Wildlife Legislation and National Planning Policy .....</b>	<b>0</b>
	<b>APPENDIX 2 – Camden Council – Policy A3- Biodiversity.....</b>	<b>5</b>
	<b>APPENDIX 3 – Reducing Impacts of Artificial Light.....</b>	<b>0</b>



# **1 INTRODUCTION**

## **1.1 Purpose of the Report**

The Ecology Co-op has been commissioned to undertake a Preliminary Ecological Appraisal and Bat Scoping at 28 Avenue Road, Camden by SHH Architecture & Interior Design. This report presents the findings of a walkover survey undertaken by senior ecologist Xenia Snowman BSc (Hons), a Natural England Level 2 Bat Survey Class Licence holder and assistant ecologist Charlie Gardiner BSc (Hons), a qualifying member of CIEEM on 11<sup>th</sup> February 2020. It provides details on the potential for any protected species and/or habitats to be present at the site and an assessment of the potential ecological constraints and opportunities to the proposed development at 28 Avenue Road. Recommendations for further surveys that are likely to be required to inform a planning application and Ecological Impact Assessment (EclA) of the proposal are provided where necessary, and measures to avoid, mitigate and/or compensate for adverse impacts and effects are outlined.

## **1.2 Background**

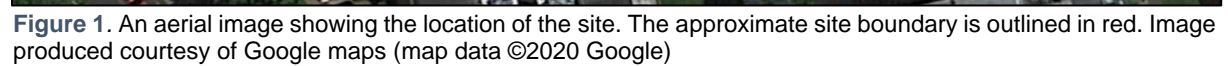
The property is known as 28 Avenue Road 'the gatehouse', Camden, Greater London, NW8 6BU. The central grid reference for the site is TQ 2722 8372.

The property includes a single story building currently occupied as a residential flat. The large, rear garden of the property features landscaped grounds with various flowerbeds of ornamental shrubs and trees, intersected with mown lawns. Several mature trees are located around the garden, particularly on the edges of the boundaries. In the northern corner of the garden, separated by flowerbeds and a pergola is a vegetable growing area with raised beds, a small greenhouse and two potting sheds. Another prominent feature of the rear garden is a tennis court to the eastern corner. Figure 1 shows the site boundaries.

The proposed development includes the construction of a two-story, large residential building. The construction of the proposed residential building would require new landscaping of the garden, although significant trees are to remain. The vehicle access driveway would be designed to approach the proposed residential building from the gatehouse with a turning circle.

The proposal will include leisure & recreation facilities in the gardens include a swimming pool area and a single-story pool house beyond. The existing tennis court is to be upgraded with the construction of a single-story tennis pavilion adjacent to the court. The proposed layout plan is shown in Figure 2.







### 1.3 Policy and Legislation

Legal protection applying to relevant bird, mammal, herpetofauna and invertebrate species and current nature conservation planning policy is outlined in APPENDIX 1 of this report.

Where possible this report has provided guidance on how the proposal can be designed to meet the requirements of both local planning policy and the National Planning Policy Framework (NPPF). Details of the NPPF can be found in APPENDIX 1 and relevant local planning policy by Camden Council is provided in APPENDIX 2.

## 2 METHODOLOGY

The methodologies used for this survey are in accordance with the Guidelines for Preliminary Ecological Appraisal (CIEEM 2017)<sup>1</sup>, but also considers the Guidelines for Ecological Report Writing, Second Edition (CIEEM 2017)<sup>2</sup> and the Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM 2018)<sup>3</sup>.

### 2.1 Desk Study

A search for existing records of protected species, species of conservation concern and invasive non-native species was requested from the Greenspace Information for Greater London (GIGL) within a radius of 1km of the site.

A search of online mapping resources was undertaken to identify the location of any features of potential ecological interest including ponds within 500m (relevant to great crested newts *Triturus cristatus*), watercourses (relevant to riparian mammals and crayfish) and connectivity to woodland, scrub, and hedgerow networks (relevant to bats, dormice *Muscardinus avellanarius*) in the wider landscape around the site. The connectivity of the site to these features, buildings, and other semi-natural habitats such as grassland and heathland are also relevant to bats, great crested newts and reptiles.

The MAGIC website resource ([www.magic.gov.uk](http://www.magic.gov.uk)) was used to identify the location of designated sites for nature conservation and European Protected Species (EPS) licences granted in relation to the survey site.

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<sup>1</sup> CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal, 2nd edition*. Chartered Institute of Ecology and Environmental Management, Winchester.

<sup>2</sup> CIEEM (2017). *Guidelines for Ecological Report Writing, 2<sup>nd</sup> edition*. Chartered Institute of Ecology and Environmental Management, Winchester.

<sup>3</sup> CIEEM (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine*. Chartered Institute of Ecology and Environmental Management, Winchester.





## 2.2 Field Survey

A site walkover survey was undertaken on 11th February 2020, during which the habitats contained within the site were described and evaluated. Since this site is relatively small scale and contains limited semi-natural habitat diversity, it was not considered necessary to undertake comprehensive Phase 1 Habitat Mapping of the site. All habitat types contained within the site, together with the dominant botanical species and indicators of important habitat types such as ancient woodland or unimproved grasslands, have simply been listed and described where identified.

Habitats and features at the site were evaluated for their potential to support legally protected species and/or species of conservation interest. In addition, observations of any important plant communities, bird assemblages or other potentially valuable ecological features were recorded.

Details of the preliminary survey methods for each legally protected species are given below. Any site-specific limitations to the survey, e.g. access constraints or seasonal constraints are set out in section 3.12.

## 2.3 Badgers

The walkover survey included a comprehensive search for evidence of badger activity, for example setts, footprints, latrines, well-worn paths, and foraging marks. Special attention was paid to boundary features such as hedgerows, woodland edge, earth banks, and fence lines, where signs of badger activity is often concentrated. The methodology follows that of Harris et al 1989<sup>4</sup>. Further surveys are recommended as appropriate.

## 2.4 Bats

Bats can use a wide range of features for roosting purposes, including loft spaces, cavity walls, loose tiles, mortice joints and cracks/gaps in a variety of built structures. They can also be found in trees with holes, splits, cracks, cavities, ivy, and loose bark.

A detailed building inspection was carried out, looking for potential access points and 'potential roosting features (PRFs)' that bats could use and any evidence indicating the presence of bats using the building, such as rub marks, feeding remains, staining or droppings. This included a ground-based external inspection around the building and internal inspection of any enclosed loft spaces or roof voids, where safe access was possible.

The potential for roosting bats for each feature, or group of features was assessed as either negligible, low, moderate, or high, in accordance with best practice. Any evidence confirming the presence of bats that was found was clearly recorded including photos and samples taken (e.g. droppings) where appropriate. Further surveys are recommended as appropriate.

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<sup>4</sup> Harris, S, Cresswell, P. and Jefferies, D. (1989). *Surveying Badgers*. Mammal Society.



The habitats surrounding the site and wider landscape were broadly assessed for their potential to support foraging and commuting bats. Further surveys are recommended as appropriate.

## 2.5 Breeding Birds

Birds can use a wide range of natural and artificial habitats when breeding, including trees, hedgerows, fields, houses and garden sheds. The habitats contained within the site and adjacent areas were broadly assessed for their potential to support important bird species/assemblages, and breeding birds. Any birds identified during the site visit were recorded. Special attention was paid to notable species such as red-listed Birds of Conservation Concern (Eaton *et al.* 2015)<sup>5</sup> and those species afforded special protection on Schedule 1 of the Wildlife and Countryside Act (1981). Further surveys are recommended as appropriate.

## 2.6 Dormice

Dormice are found in deciduous woodland and hedgerows, feeding on flowers, pollen, fruits, insects and nuts, favouring hazel *Corylus avellana* and honeysuckle *Lonicera periclymenum* for food and as bedding. The site was broadly assessed for its potential to support dormouse. This included use of on-line mapping resources to assess the surrounding area for connectivity to large blocks of woodland, scrub and extensive hedgerow networks. Further surveys are recommended as appropriate in accordance with best practice guidance (Bright *et al* 2006)<sup>6</sup>.

## 2.7 Great Crested Newt

Great crested newts breed in ponds during the spring and spend the rest of the year feeding on invertebrates in woodland, hedgerows, marshes and tussock grassland. A desk study was undertaken to identify ponds and wet ditches within 500m of the site that might support breeding great crested newts. Where access permission was granted, or ponds could be viewed from public roads or footpaths, the ponds were assessed for their potential to support great crested newts using the Habitat Suitability Index (HSI) (Oldham *et al* 2000)<sup>7</sup>. The value of the site for terrestrially foraging great crested newts and any features that might be used by hibernating newts has also been assessed.

Further surveys are recommended as appropriate, in accordance with best practice guidance (English Nature 2001)<sup>8</sup>.

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<sup>5</sup> Eaton, M., Aebischer, N., Brown, A., Hearn, R., Lock, Leigh., Musgrove, A., Noble, D., Stroud, D., Gregory, R. (2015) *Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man*. British Birds 108, pp 708-746.

<sup>6</sup> Bright, P., Morris, P. and Mitchell-Jones, T. (2006). *The dormouse conservation handbook 2nd Ed.* English Nature, Peterborough.

<sup>7</sup> Oldham, R.S., Keeble, J., Swan, M.J.S. and Jeffcote, M. (2000). Evaluating the suitability of habitat for the great crested newt (*Triturus cristatus*). *Herpetological Journal* 10, 143-155.

<sup>8</sup> English Nature (2001). *Great Crested Newt Mitigation Guidelines*. English Nature, Peterborough.



## 2.8 Reptiles

Habitats on the site were broadly assessed for their potential to support reptiles. Particular attention was paid to those features that provide suitable basking areas (e.g. south-facing slopes), hibernation sites (e.g. banks, walls, piles of rotting vegetation) and opportunities for foraging (rough grassland and scrub). The common lizard *Zootoca vivipara*, slow-worm *Anguis fragilis* grass snake *Natrix helvetica* and adder *Vipera berus* are widespread species that can be found in any of these habitats, whereas smooth snake *Coronella austriaca* and sand lizard *Lacerta agilis* have much more restricted and isolated populations on lowland heathland and sand dunes. Further surveys are recommended as appropriate.

## 2.9 Other Notable Species

The site habitats were broadly assessed for their potential to support species of principal importance for nature conservation (Section 41 NERC Act 2006) and other notable species. This includes mammals such as harvest mouse *Micromys minutus*, hedgehog *Erinaceus europaeus*, brown hare *Lepus europaeus*, and many bird species. The site was broadly assessed for its potential to support important invertebrate assemblages with particular attention paid to features such as standing dead-wood, wet flushes, bare earth banks and botanically rich areas.

# 3 BASELINE CONDITIONS

## 3.1 Designated Sites and Granted EPS Licences

There are two designated local nature reserves (LNRs) within 1km of the site boundary (Figure 4). The closest designation is Adelaide LNR reserve which exists 650m to the northeast of the site and contains an area of meadow, a pond, areas of scrub and small woodland which provides habitat for a wide variety of species.

A further designation is St John's Wood Church Grounds LNR which exists approximately 670m north of the site and includes a former graveyard with a small hedgerow, wildflower meadow, glades, thistle meadow and mixed woodland. The site is also notable for grey sedge *Carex divulsa* and butterflies.

There are six non-statutory designated Sites of Importance for Nature Conservation (SINC) sites within 1km of site, the closest of which is Primrose Hill which exists to the immediate south-west of the site and is designated for its scattered mature London Plane *Platanus x hispanica* trees and semi-improved borders where areas are less intensively managed. Table 1 shows a list of each designation within 1km and its proximity to the site.

There are 3 granted EPS licences for mitigation projects within 1km of the site boundary (Figure 3). The closest EPS licence to the site concerned the destruction of a known resting place of common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *P. pygmaeus* bats in 2012, approximately 400m to the south-east of the site.



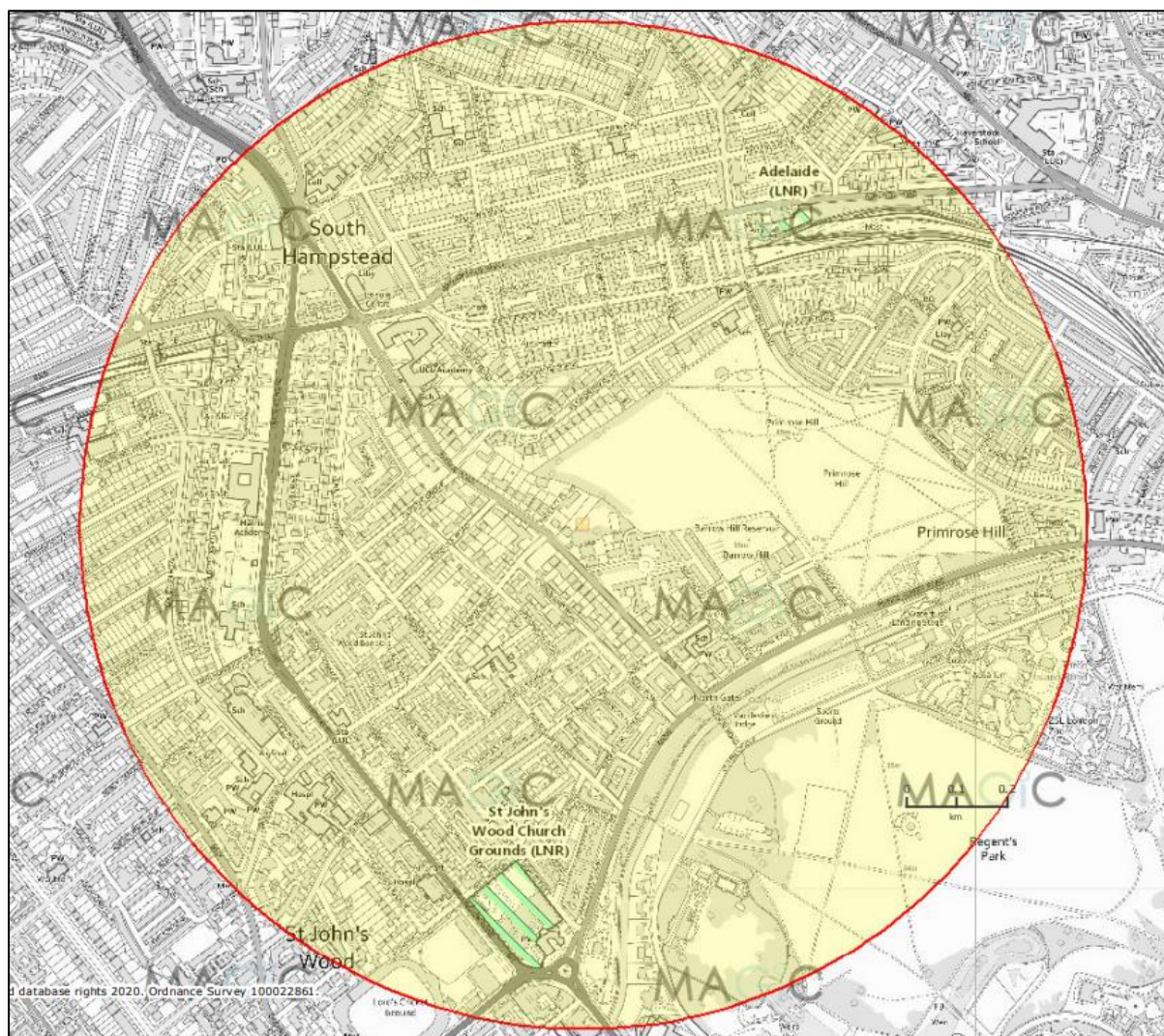
. A summary of all designated sites within 1km of 28 Avenue Road, Camden

Site name	Designation	Features listed on citation	Proximity
Primrose Hill	SINC	The grassland beneath the mature trees along the perimeter of the site is less intensively managed and retains some of the original fine-leaved species including red fescue <i>Festuca rubra</i> and creeping bent <i>Agrostis stolonifera</i> . The trees of the parkland are mostly London plane but include common lime <i>Tilia x europea</i> , hawthorn <i>Crataegus monogyna</i> , horse-chestnut <i>Aesculus hippocastenum</i> and young whitebeams <i>Sorbus aria</i> are also present.	Adjacent to site (SW)
London's Canals	SINC	The canals contain some locally uncommon species. These include narrow-leaved water plantain <i>Alisma gramineu</i> , rigid hornwort <i>Ceratophyllum demersum</i> and shining pondweed <i>Potamogeton lucens</i> . The brickwork of the canal infrastructure and banks have encouraged conditions for less common species in London to grow.	500m SE
Regents Park	SINC	The site supports various breeding birds. The heronry on one of the islands in the park is one of London's largest breeding colonies of grey heron <i>Ardea cinerea</i> . The lake in Regent's Park supports a nationally significant breeding population of pochard <i>Aythya ferina</i> .	570m SE
London Zoo	SINC	The habitats and features at the zoo provide a resource for native species, supporting many species of birds, invertebrates and mammals. Bats are some of the most common of the wild mammals living within London Zoo; bat surveys recording both common and soprano pipistrelle bats and Daubenton's bat <i>M. daubentonii</i> .	650m SE
Adelaide	SINC & LNR	The reserve is sited along the edge of a railway embankment and includes retained area of meadow with a range of species such as red fescue, false oat-grass <i>Arrhenatherum elatius</i> , common couch <i>Elymus repens</i> , black medick <i>Medicago lupulina</i> , oxeye daisy <i>Leucanthemum vulgare</i> and creeping cinquefoil <i>Potentilla reptans</i> . Other areas include a pond and areas of scrub and small woodland which provides habitat of a range of species.	650m NE
St John's Wood Church Grounds	SINC & LNR	The site is a former graveyard and now is used as an inner-city park. Recently created habitats have established to create hedgerows, wildflower meadows and mixed woodland stands.	670m N



**Figure 3.** Granted EPS licences within 1km of the application site. Image produced courtesy of Magic maps (<http://www.magic.gov.uk/>, contains public sector information licensed under the Open Government Licence v3.0).





**Figure 4.** Designated sites within a radius of 1km of the application site. Image produced courtesy of Magic maps (<http://www.magic.gov.uk/>, contains public sector information licensed under the Open Government Licence v3.0).



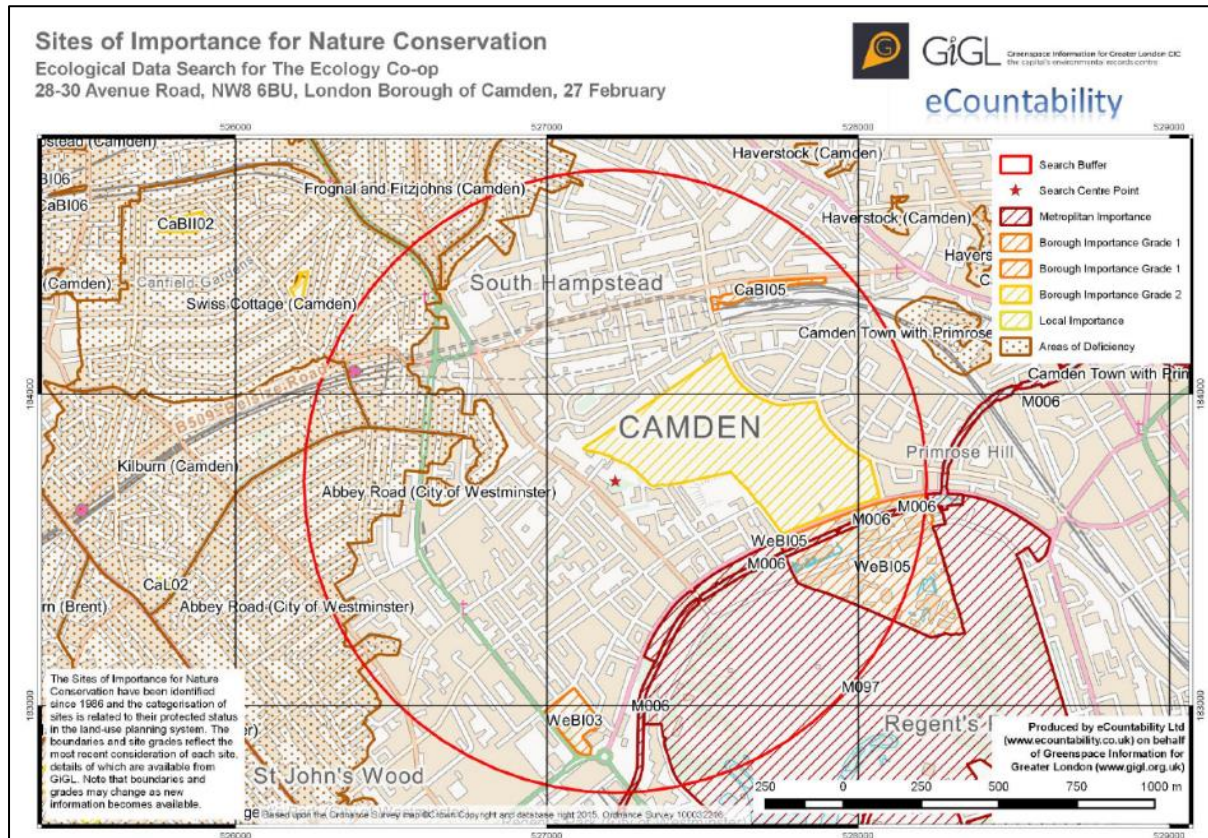


Figure 5. Non-statutory designated sites within 1km of the application site (Courtesy of GiGL)

### 3.2 Habitats

The rear garden contains flowerbeds of ornamental shrubs and trees with areas of shortly mown amenity grassland lawn (Photograph 2). These lawns consist of common grass species such as perennial rye grass *Lolium perenne* and improved grassland indicators moss species such as *Rhytidiadelphus squarrosus*. There were certain species in the lawn which have escaped from the ornamental flowerbeds such as ground ivy *Glechoma hederacea* and sweet violet *Viola odorata*.

Species such as bramble *Rubus fruticosus* agg. are frequent between the vegetation on the boundary wall along the north to north-eastern boundary and is a prevalent feature within the beside two potting sheds near defunct ornamental beds which are dominated by ivy *Hedera helix*, *Bergenia* sp. and *Geranium* sp. in this area (Photograph 1).

In the central part of the garden within a flowerbed, an oak *Quercus robur* has been severed from its stem and fallen into the adjacent tree (Photograph 4).

The wider habitats immediately adjacent to the site include Primrose Hill beyond the northeastern wall on the site boundary which provides resource as a greenspace and park for recreation. Large trees of London plane within Primrose Hill and immediately adjacent to the site boundary wall of the site.





**Photograph 1.** Rear portion of garden towards the northeast and the overgrown ornamental beds prevalent with ivy, bramble and *Germanium* species.



**Photograph 2.** Example of the amenity grassland lawn which the areas of ornamental flowerbeds across the site.





**Photograph 3.** The southern, lower portion of the site boundary looking towards the entrance gate, drive and lawns.



**Photograph 4.** A fallen oak tree in the centre of the garden within a flowerbed. This tree has been severed from the stem and fallen into the adjacent specimen.





### 3.3 Badgers

A small area of piled spoil which appeared to be old and previously covered over with stacked brash was identified in the far northeastern corner of the garden behind the existing tennis court during the walkover survey (Photograph 6). Snuffle marks were found nearby beside the tennis court (Photograph 5). Mammal runs were also identified traversing the site boundaries in the north eastern corner behind the tennis court, along the south western boundary (Photograph 7). However, no entrances to badger setts were found in the site boundaries.

GIGL provided 1 record of badger in the search area. The distance of this record to the site boundaries was withheld by GIGL due to confidential information restrictions.



**Photograph 5.** Evidence of snuffle marks found beside the tennis court which indicates activity by mammals, possibly badger.





**Photograph 6.** The location of old spoil heaps underneath stacked brash and dense bramble.



**Photograph 7.** Mammal track along the northeast boundary behind the tennis court looking towards the old spoil heap covered under brash.



### 3.4 Bats

The single-story gatehouse is constructed with sandstone brick with decorative facias (Photograph 8). The roof is constructed with slate roof tiles with grey concrete ridge tiles. The building has a flat roof section beyond the ridge which is lined with a bitumen layer.

Two external features on the property were identified as potentially able to support roosting bats. There is a lifted slate tile which presents a small crevice that provide a suitable roost on the porch gable on the north-west elevation (Photograph 9). Another lifted slate tile is in the valley on north-western elevation (Photograph 10).

There are certain trees present in the site which are mature and covered by ivy which could be concealing features for roosting bats such as crevices, callus rolls, splits and cavities.

The setting of the site which is neighbored by Primrose Hill and the amount of vegetation and mature trees within the site boundaries would be beneficial foraging bats. The densely vegetated brick wall on the northern boundary acts as a linear feature which would be used for a commuting route for bats.

GIGL provided 784 bat records in the search area comprising 7 identified species within the search area which are detailed in Table 2 below.

GIGL provided 784 bat records in the search area comprising 7 identified species within the search area which are detailed in Table 2.

**Table 2:** Bat records returned within a 1km radius of 28 Avenue Road, Camden.

Species	No. of records
Common pipistrelle <i>Pipistrellus pipistrellus</i>	191
Soprano pipistrelle <i>P. pygmaeus</i>	170
<i>Pipistrelle</i> sp.	144
Nathusius's pipistrelle <i>P. nathusii</i>	15
Noctule <i>Nyctalus noctula</i>	33
Lesser Noctule <i>N. leisleri</i>	2
<i>Myotis</i> sp.	51
Serotine <i>Eptesicus serotinus</i>	1
Unidentified bat species etc...	143





**Photograph 8.** The Gatehouse building at the southern edge of the site



**Photograph 9.** A lifted tile presenting a crevice on the south-western elevation of the front porch gable.



**Photograph 10.** A lifted tile in the valley between the front porch gable and north-west gable.

### 3.5 Breeding Birds

The habitats within the site, particularly the mature trees with dense ivy cover and vegetation in the ornamental flowerbeds provides cover to support optimal nesting opportunities for breeding birds (Photographs: 1 & 2). During the walkover survey, species recorded include: robin *Erithacus rubecula*, blue tit *Cyanistes caeruleus*, great tit *Parus major* and nuthatch *Sitta europaea* and habitats within the site are potentially to support nesting by these species.

GIGL provided numerous bird records for the search area concerning a total of 90 species. The list includes 16 species of principle importance for conservation (S41 NERC Act 2007), and 31 species listed on Schedule 1 of the Wildlife and Countryside Act. In addition, 40 species are red listed on the Birds of Conservation Concern.

### 3.6 Dormice

The site contains no woodland, scrub or hedgerows suitable for dormice and the species is highly unlikely to be present.

While no records of this species were provided by GIGL, this species is known to be under-recorded and could occur in any suitable habitat.



### 3.7 Great Crested Newts and Other Amphibians

There are no ponds contained by the site or within 500m of the site. Great crested newts and other amphibians are therefore highly unlikely to be present at the site.

The data from GIGL provided amphibian records in the search area. This included 24 records for common frog *Rana temporaria* and 10 records for common toad *Bufo bufo*.

### 3.8 Reptiles

The site contains no suitable habitat for reptiles as it mostly consists of amenity lawns and landscaped gardens with ornamental flowerbeds with a consistently flat topography across the site.

However, some suitable open basking opportunities around certain habitat features such as the potting sheds and wooden raised beds adjacent to the northwest boundary, provide suitable open basking areas with sufficient cover nearby. However, a large wall encloses the site on the north-western and northern boundary which would present a significant barrier to the passage of reptiles. The wider suitability for reptile is severely reduced within the current situation of the site within the wider habitat with busy roads and railways.

The data from GIGL provided no reptile records within in the search area.

### 3.9 Invasive Non-native Species

No evidence of invasive non-native species were found during the walkover survey.

GIGL provided 27 records of reptiles, plants, moths and birds in the search area. The closest of these was at 200m from the boundary of the site, dated 2008.

### 3.10 Other Notable Species

There is negligible potential to support other notable species within the proposed development site such as brown hare and harvest mouse. The site supports suitable habitat and features for foraging and hibernating hedgehogs where the vegetation is less controlled and less neatly kept near the potting sheds on the northern boundary (Photograph 1).

Due to required tree works near the gatehouse, decaying logs are present opportunities to support stag beetles which are listed as a species of principle importance for conservation (S41 NERC Act 2007).

The data from GIGL provided 10 records of stag beetle in the search area. The closest of these was at 184m from the site boundary. GIGL also provided 110 records for hedgehogs within the search area, of which the closest was 986m from the site boundaries.

GIGL identified several invertebrates listed as priority species under S41 NERC Act 2007 within the





search area such as white admiral *Limenitis camilla*, white-letter hairstreak *Satyrus w-album*, grey dagger *Acronicta psi*. The closest was 600m from the site boundaries.

### 3.11 Survey Limitations

An initial site assessment such as this is only able to act like a 'snapshot' to record any flora or fauna that is present at the time of the survey. It is therefore possible that some species may not have been present during the survey, but may be evident at other times of the year. For this reason, habitats are assessed for their potential to support some species, even where no direct evidence (such as droppings) has been found.

The potential badger old spoils created and snuffle marks in the north-eastern corner could not be properly inspected due to the dense bramble and overlying stacked brash in this area to identify any conclusive evidence that badgers are present.

## 4 IMPACT APPRAISAL

### 4.1 Designated Sites

The nearby sites are all non-statutory designated and are declared as LNR or SNCI. There are some habitat characteristics of the proposed development site are shared with St John's Wood Church Grounds LNR and Primrose Hill SNCI. There are no shared habitat similarities with Adelaide LNR which have been identified within the proposed development site that would be impacted as a result. Other nearby designations within the 1km search area would be unlikely to be impacted by the new proposed development plans as these sites are separated by mostly suburban streets or well-maintained landscaped gardens in a busy, city environment.

As the proposed plans in the site refer to the creation of a new residential building, it is considered there would be a small pressure increase in recreational use by people, however this would be of minimal impact as the local landscape is predominantly urban in central London.

### 4.2 Habitats

The habitats on the site consist of mainly ornamental flowerbeds with mature trees and shrubs. These have limited wider value for nature conservation. The current proposed development plans are likely to impact these areas by re-landscaping of the garden or the construction of buildings and recreational areas as included within the proposed development plans.

The areas on the north-eastern corner, near to the two potting sheds, contain areas of good cover and food resources amongst the brambles and scrub that has developed which are utilised by invertebrates, birds or small mammals. However, these features are widespread, common and of minor value to nature conservation.

Overall, the likely impacts from the proposed development of the habitats present will be **significant at**



the site level only.

### 4.3 Badgers

Since there is potential for badgers to be present on the site, the following precautionary measures are recommended to prevent harm to any badgers and/or their setts during construction:

- A pre-construction walkover survey should be undertaken in advance of construction/site preparation to determine whether any setts are established
- All food or waste food must be stored securely overnight
- Tools and any hazardous materials must be stored securely
- Deep excavations must be either covered overnight or a ramp placed in them to provide a means of escape
- If the stacked brash near to the tennis court is to be removed during the upgrade work, a watching brief of the removal of this feature should be undertaken to investigate if badgers are using the site in this area.

Without these precautionary measures in place the negative impacts to badgers would be of **local level**. However, should these precautionary measures be enacted the likely level of impact to badgers would be **neutral**.

### 4.4 Bats

The building known as the gatehouse within the site presents features that have a **low potential** for roosting bats on the north-west elevation. Two lifted slate tiles have created a crevice where bats would be able to access behind the tiles.

The gatehouse is not scheduled for any exterior alterations as part of the proposed development plans and therefore, no further surveys are required. In the future, if any current proposed plans change to include alterations to the exterior of the gatehouse, it would be required to conduct a single emergence/re-entry survey in accordance with the Bat Conservation Trust's guidelines between May to August to assess whether bats are using this building for roosting.

The mature trees within the site that are covered with dense ivy are likely to be concealing potential bat roosting features. If these any of the mature trees are to be removed, it would be necessary to fully investigate whether any trees are likely to contain suitable features for roosting bats. Therefore, a suitably qualified bat ecologist is required to climb these trees to undertake further surveys prior to removal to assess the potential for bat roosts.

The overall potential of the site, particularly the wider garden, is suitable for foraging and commuting bats amongst the canopies of the larger mature trees. However, this habitat is part of a wider resource across the landscape in the local area especially with Primrose Hill SNCI beyond the north-eastern boundary wall.

The outdoor swimming pool area and tennis court upgrade would likely increase the artificial lighting in these areas and cause a disturbance to bats. Therefore, it is important that the potential for disturbance



from artificial lights is considered within the proposed development. The proposed development should include an 'ecologically sensitive lighting scheme' in accordance with guidance produced by the Bat Conservation Trust (summarised in Appendix 3).

#### 4.5 Breeding Birds

It will be essential that the proposed development considers the nesting bird season. Any future vegetation removal and/or building demolition should be timed outside of the nesting bird season (typically 1<sup>st</sup> March to 31<sup>st</sup> August), unless features are first searched by a suitably qualified ecologist and no active nests are found.

This precautionary strategy is to be undertaken prior to removal of the fallen oak in the centre of the garden which has potential for nesting birds during the breeding season. Other areas that should be checked for breeding birds, prior to removal include the any mature trees, particularly those which are covered by ivy.

If breeding birds are found to be present in any habitats to be removed, an exclusion zone of 5m should be enforced by the placement of temporary barrier fencing until such time that birds are deemed to have ceased nesting by an ecologist.

In the absence of mitigation, the development is likely to have a negative impact on nesting birds that is **significant at the site level only**. Should the above mitigation measures be implemented, the impact from the development is likely to be **neutral**.

#### 4.6 Great Crested Newts

No further surveys are recommended with respect to great crested newts, as no waterbodies that might support breeding newts have been identified and it is considered extremely unlikely that this species would be found on the site at any time.

#### 4.7 Reptiles

No further surveys are recommended for reptiles. The garden consists of various improved open lawns and is surrounded on the boundary by large walls which are hemmed in by hardstanding, presenting significant barriers to the passage of reptiles. It is therefore considered extremely unlikely that would be found on the site at any time.

#### 4.8 Other Notable Species

Due to required previously conducted tree works near the gatehouse, the decaying logs that are a feature for stag beetles *Lucanus cervus* would be required to have an ecologist check for presence if these are to be removed from its current location as part of the proposed development plans. The decaying logs should be moved elsewhere on site outside of the proposed construction zone so that they can remain on site without being damaged.





It is required that a precautionary search of the vegetation and the two potting sheds on the north-eastern boundary be made for hedgehogs that maybe either hibernating during the winter or resting during the day prior to the removal of these habitats by an ecologist. Any newly constructed boundary fencing should allow for the passage of hedgehogs by creating a 'hedgehog hole' by removing a small semi arched shape from the base of the fence at selected intervals.

If these precautionary measures are not undertaken, it is likely that a negative impact at **local level** would occur. However, if these measures are undertaken and appropriate checks made then any impact would be considered **neutral**.

## 5 OPPORTUNITIES FOR ENHANCEMENT

The proposed development represents an opportunity for habitat enhancement to benefit insects, birds, and bats. Any planting scheme could include native shrub species and flowering species known to encourage insect diversity. Such enhancement measures are in line with the recommendations of the NPPF and as such would be considered favourably when determining the planning application.

The developer is encouraged to install two bird and two bat boxes such as the 'Schwegler 2F Bat Box' and 'Schwegler 1BB Nest Box' around the site on any retained mature vegetation. The examples of these enhancements are shown in Figure 6 & Figure 7. Further enhancements that would be beneficial for the site include the construction of a bug hotel for invertebrates such as stag beetles outside of the proposed construction zone. An example of this is provided in Figure 8.



**Figure 6.** An example of 'Schwegler 1B Nest Box' that could be applied as part of the proposed development plans (Courtesy of ARK Wildlife).



**Figure 7.** An example of 'Schwegler 2F Bat Box' that could be applied as part of the proposed development plans (Courtesy of ARK Wildlife).



**Figure 8.** An example of a 'bug hotel'. wooden frame with bricks, branches, tiles and bamboo (Courtesy of RSPB).

## 6 CONCLUSIONS

The habitats and species within the site at 28 Avenue Road are likely to be impacted by the construction of the proposed plans.

The precautionary mitigation set out in Section 4 is to ensure any possible impacts to badgers, bats, nesting birds and other notable species such as hedgehogs and stag beetles are appropriately avoided if the proposed construction plans are accepted.

There no future planned exterior alterations as part of the proposed development to the gatehouse and therefore no further surveys are required for bats. If any proposed plans change in the future to include exterior alterations to the gatehouse, a single dusk or dawn bat survey should be undertaken to understand if bats are using the features on the building for roosting.

The enhancement opportunities identified in Section 5 will result in new opportunities for nesting birds, roosting bats and invertebrates. This would encourage a likely gain in biodiversity at the site should they all be implemented in full.



**If any protected species are found during the proposed work, work should be stopped immediately, and an ecologist must be contacted immediately for advice.**

Should you need any further advice on the information provided above, please do not hesitate to contact The Ecology Co-op, [info@ecologyco-op.co.uk](mailto:info@ecologyco-op.co.uk), [www.ecologyco-op.co.uk](http://www.ecologyco-op.co.uk), Office: 01798 861800.



## **APPENDIX 1 – Wildlife Legislation and National Planning Policy**

### **Introduction**

The following text is intended for general guidance only and does not constitute comprehensive professional legal advice. It provides a summary of the current legal protection afforded to wildlife in general and certain species. It includes current national planning policy relevant to nature conservation.

### **The ‘Birds Directive’, ‘Habitats Directive’ and ‘Natura 2000 Sites’.**

The Council Directive 79/409/EEC on the Conservation of Wild Birds (“the Birds Directive”) sets a framework for the protection of wild birds. Under the directive, several provisions are made including the designation and protection of ‘Special Protection Areas’ (SPAs) – areas which support important bird populations, and the legal protection of rare or vulnerable species.

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the “Habitats Directive”) directs member states of the EU to take measures to maintain favourable conservation status of important habitats and species. This requires the designation of a series of sites which contain important populations of species listed on Annex II of the directive (for example Bechstein’s bat *Myotis bechsteinii*, Barbastelle bat *Barbastella barbastellus* and white-clawed crayfish *Austropotamobius pallipes*). Together with ‘Special Areas of Conservation’ (SPAs), designated under the Birds Directive, SACs form a network across Europe of protected areas known as the ‘Natura 2000 sites’.

Annex IV lists species in need of more strict protection, these are known as “European Protected Species (EPS)”. All bat species, common dormice *Muscardinus avellana*, otter *Lutra lutra* and great crested newts *Triturus cristatus* are examples of EPS that are regularly encountered during development projects.

### **The ‘Habitats Regulations’**

The Conservation of Habitats and Species Regulations 2017 (the “Habitats Regulations”) is the principle means of transposing the Habitats Directive and the Birds Directive, and updates the Conservation (Natural Habitats, &c.) Regulations 1994 (“the 1994 regulations”) in England and Wales.

‘Natura 2000’ sites receive the highest level of protection under this regulation which requires that any activity within the zone of influence of these sites would be subject to a Habitats Regulations Assessment (HRA) by the competent authority (e.g. planning authority), leading to an Appropriate Assessment (AA) in cases where ‘likely significant effects on the integrity of the site are identified.

For European Protected Species, Regulation 41 makes it a criminal offence to;

- Deliberately capture, injure or kill any such animal;
- Deliberately disturb wild animals of such species;
- Deliberately take or destroy their eggs (where relevant);
- Damage or destroy a *breeding or resting place* of such an animal;
- Possess, control, sell or exchange any live or dead animal or plant, of such species;
- Deliberately pick, collect, cut, uproot or destroy a wild plant of such species.



The Habitats Directive and Habitats Regulations provide for the derogation from these prohibitions for specific reasons provided certain conditions are met. An EPS licensing regime allows operations that would otherwise be unlawful acts to be carried out lawfully. Natural England is the licensing Authority and, in order to grant a license, ensures that three statutory conditions (sometimes referred to as the ‘three derogation tests’) are met:

- A licence can be granted for the purposes of “preserving public health or safety or for other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment” (Regulation 53 (2) (e)).
- A licence can be granted if “there are no satisfactory alternatives” to the proposed action.
- A licence shall not be granted unless the action authorised will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range.

### **Wildlife and Countryside Act (1981) as amended.**

This remains one of the most important pieces of wildlife legislation in the UK. There are various schedules to the Act protecting birds (Schedule 1), other animals including insects (Schedule 5), plants (Schedule 8), and control of invasive non-native species (Schedule 9).

Under the Wildlife and Countryside Act (WCA) 1981, all wild birds (with the exception of those listed on Schedule 2), their eggs and nests are protected by law and it is an offence to:

- Take, damage or destroy the nest of any wild bird while it is in use or being built.
- Take or destroy the egg of any wild bird.
- Disturb any bird listed on Schedule 1, while it is nest building, or at a nest with eggs or young, or disturb the dependant young of any such bird.

Schedule 5 lists all non-avian animals receiving protection to a varied degree. At its strongest, the Act makes it an offence to intentionally kill, injure or take any wild animal listed on Schedule 5, and prohibits interference with places used for shelter or protection, or intentionally disturb animals while occupying such places. Examples of species with *full protection* include all EPS, common reptile species, water vole *Arvicola amphibius*, white-clawed crayfish *Austropotamobius pallipes* and Roman snail *Helix pomatia*. Other species are protected from sale, barter or exchange only, such as white letter hairstreak *Satyrrium w-album*.

The Act makes it an offence to intentionally pick, uproot or destroy any plant or seed, and sell or possess any plant listed on Schedule 8. It is also an offence to intentionally uproot any wild plant not listed on Schedule 8 unless authorised [by the land owner]. Species on Schedules 5 and 8 are reviewed every 5 years when species can be added or removed.

Measures for the prevention of spreading non-native species which may be detrimental to native wildlife is included in the Act, which prohibits the release of animals or planting of plants into the wild of species listed on Schedule 9 (for example Japanese knotweed *Fallopia japonica*, Himalayan balsam *Impatiens glandifera*, New Zealand Pygmyweed *Crassula helmsii*).

The Wildlife and Countryside Act 1981 (as amended) also prohibits certain inhumane methods of traps and devices for the capture or killing of wild animals and certain additional methods such as fixed trap, poisoning with gas or smoke, or spot-lighting with vehicles for killing species listed on Schedule 6 of the Act (this includes all bat species, badger, otter, polecat, dormice, hedgehog and red squirrel).

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



The NERC Act (2006) created the statutory nature conservation body Natural England, and places a statutory duty on all public bodies, including planning authorities, under Section 40, to take, or promote the taking by others, steps to further the conservation of *habitats and species of principal importance for the conservation of biodiversity* in England (commonly referred to as the 'Biodiversity Duty'). This duty extends to all public bodies the biodiversity duty of Section 74 of the Countryside and Rights of Way (CROW) Act 2000, which placed a duty only on Government and Ministers. Section 41 of the NERC Act lists the habitats and species of principle importance. This includes a wide range of species from mosses, vascular plants, invertebrates through to mammals and birds. It originates from the priority species listed under the UK Biodiversity Action Plan (UK BAP) with some omissions and additions.

## Protection of Badgers Act (1992)

The Badger *Meles meles* is afforded specific legal protection in Britain under the Protection of Badgers Act (1992), and Schedule 6 of the Wildlife and Countryside Act 1981 (as amended) (see above).

Under this legislation, it is a criminal offence to:

- intentionally kill, injure, take, possess, or cruelly ill-treat, a Badger, or to attempt to do so;
- interfere with a sett, by damaging or destroying it;
- to obstruct access to, or any entrance of, a Badger sett; or
- to disturb a Badger when it is occupying a sett.

A licence may be obtained from Natural England to permit certain prohibited actions for a number of defined reasons including interference of a sett for the purpose of development, provided that a certain number of conditions are met. Note that licenses are not normally granted for works affecting badgers between the end of November and the start of July.

## National Planning Policy Framework

The National Planning Policy Framework (NPPF 2019)<sup>9</sup> sets out the Government's view on how planners should balance nature conservation with development and helps ensure that Government meets its biodiversity commitments with regard to the operation of the planning system.

Paragraph 174b, which states that council policies should “*promote the conservation, restoration and enhancement 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.*” The Office of the Deputy Prime Minister (ODPM) Circular 06/2005, 2005)<sup>10</sup>. In accordance with the NPPF, it is important that developments should contribute to and enhance the natural and local environment by:

- Minimising impacts on existing biodiversity and habitats,
- Providing net gains in biodiversity and habitats, wherever possible,

<sup>9</sup> HM Government (2019). National Planning Policy Framework. Department for Communities and Local Government. Available online at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/728643/Revised\\_NPPF\\_2018.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/728643/Revised_NPPF_2018.pdf).

<sup>10</sup> HM Government (2005) ODPM Circular 06/05 Government Circular: *Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System*. Available online at: [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/7692/147570.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf).





- establishing coherent ecological networks that are more resilient to current and future pressures.

## **UK Post-2010 Biodiversity Framework**

The UK Biodiversity Action Plan (UK BAP), first published in 1994, was the UK's response to the commitments of the Rio Convention on Biological Diversity (1992) until 2010, when the UK BAP was replaced by the UK Post-2010 Biodiversity Framework. This framework covers the period 2011 to 2020 and forms the UK government's response to the new strategic plan of the United Nations Convention on Biodiversity (CBD) published in 2010. This promotes a focus on individual countries delivering target for protection for biodiversity through their own strategies.

The most recent biodiversity strategy for England, 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services' was published by Defra (2011), and a progress update was provided in July 2013 (Defra 2013).

'Biodiversity 2020' builds on the Natural Environment White Paper for England – 'The Natural Choice', published on 7 June 2011, and sets out the strategic direction for biodiversity policy for the next decade. Biodiversity 2020 deliberately avoids setting specific targets and actions for local areas and species because the Government believes that local people and organisations are best placed to decide how to implement the strategy in the most appropriate way for their local area or situation.

## **Birds of Conservation Concern (BoCC)**

In 1996, the UK's leading non-governmental bird conservation organisations listed the conservation status of all bird species in the UK against a series of criteria relating to their population size, trends and relative importance to global conservation. The lists, known as the 'Red', 'Amber' and 'Green' lists (in order of decreasing concern) are used to inform key conservation policy and decisions. The lists are reviewed every 5 years and are a useful reference for determining the current importance of a particular site for birds. The most recent review was undertaken in 2015 (Eaton et al, 2015), which provides an up to date assessment of the conservation status of birds in the UK.

## **References**

Protection of Badgers Act (1992). HMSO London. Available at:  
<http://www.legislation.gov.uk/ukpga/1992/51/contents>

Circular 06/2005 (2005). Government Circular: Biodiversity and geological conservation – statutory obligations and their impact within the planning system. Office of the Deputy Prime Minister, London. Available at:  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/7692/147570.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf)

Council Directive 79/409/EEC on the Conservation of Wild Birds ("the Birds Directive"). Available at:  
<http://jncc.defra.gov.uk/page-1373>

Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (the "Habitats Directive"). Available at: <http://jncc.defra.gov.uk/page-1374>

The Conservation of Habitats and Species Regulations 2017 (the Habitats Regulations"). Available at:  
<http://jncc.defra.gov.uk/page-1379>

Countryside and Rights of Way (CROW) Act (2000). HMSO London. Available at:  
<http://www.legislation.gov.uk/ukpga/2000/37/contents>

Defra (2011) Biodiversity 2020: A strategy for England's wildlife and ecosystem services. Available at:  
[www.gov.uk/government/publications/biodiversity-2020-a-strategy-for-england-s-wildlife-and-ecosystem-services](http://www.gov.uk/government/publications/biodiversity-2020-a-strategy-for-england-s-wildlife-and-ecosystem-services).



Defra (2013) Progress Update. Available at: [www.gov.uk/government/publications/biodiversity-2020-simple-guide-and-progress-update-july-2013](http://www.gov.uk/government/publications/biodiversity-2020-simple-guide-and-progress-update-july-2013).

Eaton, M., Aebischer, N., Brown, A., Hearn, R., Lock, L., Musgrove, A., Noble, D., Stroud, D. and Gregory, R. (2015) Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. Available at: British Birds 108 • December 2015 • 708–746  
<https://britishbirds.co.uk/wp-content/uploads/2014/07/BoCC4.pdf>

Natural Environment and Rural Communities (NERC) Act (2006). HMSO London. Available at: [http://www.legislation.gov.uk/ukpga/2006/16/pdfs/ukpga\\_20060016\\_en.pdf](http://www.legislation.gov.uk/ukpga/2006/16/pdfs/ukpga_20060016_en.pdf)

National Planning Policy Framework (NPPF) (2018) Department for Communities and Local Government. Available at:  
[www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/6077/2116950.pdf](http://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf)

Wildlife and Countryside Act (WCA) (1981). HMSO London. Available at:  
<http://www.legislation.gov.uk/ukpga/1981/69/contents>



## **APPENDIX 2 – Camden Council – Policy A3- Biodiversity**

Policy Number/Title	Policy Summary
A3: Biodiversity: Trees and Vegetation	<ul style="list-style-type: none"> <li>• resist the loss of trees and vegetation of significant amenity, historic,</li> <li>• cultural or ecological value including proposals which may threaten the</li> <li>• continued wellbeing of such trees and vegetation;</li> <li>• require trees and vegetation which are to be retained to be satisfactorily</li> <li>• protected during the demolition and construction phase of development</li> <li>• in line with BS5837:2012 'Trees in relation to Design, Demolition and</li> <li>• Construction' and positively integrated as part of the site layout;</li> <li>• expect replacement trees or vegetation to be provided where the loss</li> <li>• of significant trees or vegetation or harm to the wellbeing of these</li> <li>• trees and vegetation has been justified in the context of the proposed</li> <li>• development;</li> <li>• expect developments to incorporate additional trees and vegetation</li> <li>• wherever possible</li> </ul>
A3: Biodiversity: Nature Conservation	<ul style="list-style-type: none"> <li>• Designate sites of for nature conservation and protected priority species and habitats</li> <li>• grant permission for development unless it would directly or indirectly</li> <li>• result in the loss or harm to a designated nature conservation site or</li> <li>• adversely affect the status or population of priority habitats and species</li> <li>• seek the protection of other features with nature conservation value, including gardens, wherever possible;</li> <li>• assess developments against their ability to realise benefits for</li> </ul>



	<ul style="list-style-type: none"><li>• biodiversity through the layout, design and materials used in the built</li><li>• structure and landscaping elements of a proposed development,</li><li>• require the demolition and construction phase of development</li><li>• the movement of works vehicles, to be planned to avoid disturbance to</li><li>• habitats and species and ecologically sensitive areas, and the spread of</li><li>• invasive species;</li></ul>
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## **APPENDIX 3 – Reducing Impacts of Artificial Light**

Bright external lighting can have a detrimental impact upon foraging and commuting bat flight paths, but more importantly can also cause bats to remain in their roosts for longer. Artificial lighting can also cause significant impacts on other nocturnal species, most notably moths and other nocturnal insects. It can also result in disruption of the circadian rhythms of birds, reducing their fitness. Guidelines issued by the Bat Conservation Trust<sup>11</sup> should be considered while designing the lighting scheme. A simple process which should be followed where the impact on bats is being considered as part of a proposed lighting scheme. It contains techniques which can be used on all sites, whether a small domestic project or larger mixed-use, commercial or infrastructure development. This includes the following measures:

### **Avoid lighting on key habitats and features altogether**

there is no legal duty requiring any place to be lit. British Standards and other policy documents allow for deviation from their own guidance where there are significant ecological/environmental reasons for doing so. It is acknowledged that in certain situations lighting is critical in maintaining safety, such as some industrial sites with 24-hour operation. However, in the public realm, while lighting can increase the perception of safety and security, measurable benefits can be subjective. Consequently, lighting design should be flexible and be able to fully consider the presence of protected species

### **Apply mitigation methods to reduce lighting to agreed limits in other sensitive locations – lighting design considerations**

Where bat habitats and features are considered to be of lower importance or sensitivity to illumination, the need to provide lighting may outweigh the needs of bats. Consequently, a balance between a reduced lighting level appropriate to the ecological importance of each feature and species, and the lighting objectives for that area will need to be achieved. The following are techniques which have been successfully used on projects and are often used in combination for best results;

- Dark buffers, illuminance limits and zonation
- Sensitive site configuration, whereby the location, orientation and height of newly built structures and hard standing can have a considerable impact on light spill
- Consider the design of the light and fittings, whereby the spread of light is minimised ensuring that only the task area is lit. Flat cut-off lanterns or accessories should be used to shield or direct light to where it is required. Consider the height of lighting columns. It should be noted that a lower mounting height is not always better. A lower mounting height can create more light-spill or require more columns. Column height should be carefully considered to balance task and mitigation measures. Consider no lighting solutions where possible such as white lining, good signage, and LED cat's eyes. For example, light only high-risk stretches of roads, such as crossings and junctions, allowing headlights to provide any necessary illumination at other times.
- Screening, whereby light spill can be successfully screened through soft landscaping and the installation of walls, fences and bunding
- Glazing treatments, whereby glazing should be restricted or redesigned wherever the ecologist and lighting professional determine there is a likely significant effect upon key bat habitat and features.

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<sup>11</sup> Bat Conservation Trust and Institute for Lighting Professionals (2018) Guidance note 8. Bats and Artificial Lighting. <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/>





- Creation of alternative valuable bat habitat on site, whereby additional or alternative bat flightpaths, commuting habitat or foraging habitat could result in appropriate compensation for any such habitat being lost to the development.
- Dimming and part-night lighting. Depending on the pattern of bat activity across the key features identified on site it may be appropriate for an element of on-site lighting to be controlled either diurnally, seasonally or according to human activity. A control management system can be used to dim (typically to 25% or less) or turn off groups of lights when not in use.

#### **Demonstrate compliance with illuminance limits and buffers**

- *Design and pre-planning phase*; It may be necessary to demonstrate that the proposed lighting will comply with any agreed light-limitation or screening measures set as a result of your ecologist's recommendations and evaluation. This is especially likely to be requested if planning permission is required.
- *Baseline and post-completion light monitoring surveys*; baseline, pre-development lighting surveys may be useful where existing on or off-site lighting is suspected to be acting on key habitats and features and so may prevent the agreed or modelled illuminance limits being achieved.
- *Post-construction/operational phase compliance-checking*; as a condition of planning, post-completion lighting surveys by a suitably qualified person should be undertaken and a report produced for the local planning authority to confirm compliance. Any form of non-compliance must be clearly reported, and remedial measures outlined. Ongoing monitoring may be necessary, especially for systems with automated lighting/dimming or physical screening solutions.

#### **Further reading:**

Buglife (2011) *A review of the impact of artificial light on invertebrates*.

Royal Commission on Environmental Pollution (2009) *Artificial light in the environment*. HMSO, London.  
Available at: <https://www.gov.uk/government/publications/artificial-light-in-the-environment>

Rich, C., Longcore, T., Eds. (2005) *Ecological Consequences of Artificial Night Lighting*. Island Press.  
ISBN 9781559631297.

CPRE (2014) *Shedding Light: A survey of local authority approaches to lighting in England*. Available at: <http://www.cpre.org.uk/resources/countryside/dark-skies/item/3608-shedding-light>

Planning Practice Guidance guidance (2014) *When is light pollution relevant to planning?* Available at: <https://www.gov.uk/guidance/light-pollution>

Institution of Lighting Professionals (2011) *Guidance Notes for the Reduction of Obtrusive Light* GN01:2011. Available at: <https://www.theilp.org.uk/resources/free-resources/>

End.

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