

Preliminary Ecological Appraisal

Castle Mews, Camden

December 2024

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23/12/2024

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Document Control:

Project no.:		Project name:		
13111		Castle Mews, Camden		
Version:	Written by:	Checked by:	Authorised by:	Date:
V1	Rachel Wilkinson	Paul Carter	Richard Schofield	28 June 2024
V2	Rachel Wilkinson	Paul Carter	Richard Schofield	22 July 2024
V3	Rachel Wilkinson	Paul Carter	Paul Carter	23 December 2024

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Non-technical Summary

Phlorum Ltd was commissioned by Montagu Evans to undertake a Preliminary Ecological Appraisal (PEA), and Bat Building Inspection (BBI), which was carried out at Castle Mews, Camden, NW1 8SU on the 18th June 2024, in order to determine whether any ecological constraints could affect the proposed works for the site.

Current proposals are for the redevelopment of the onsite buildings. The survey area extended over approximately 0.2 hectares (ha).

This revision was completed to provide amended information on the condition of the roof on building four.




The main findings of the surveys are as follows:

-  The site is not subject to any statutory or non-statutory designations. The closest statutory designated site is Adelaide Local Nature reserve which is located 0.98km to the southwest.
-  The site comprised developed land sealed surface, buildings, individual trees and ruderal/ephemeral.
-  It is recommended that targeted surveys in respect to bats are carried out.
-  In addition, a precautionary approach to site clearance in respect to bats, mammals and breeding birds is recommended to minimise any adverse impacts on these species' groups.
-  Foxes will also need to be considered during any site clearance as this species was seen inside building four and is protected under the Wildlife Mammals Protection Act (1996).

Further information on precautionary working practices and additional surveys together with recommended mitigation and enhancement measures are discussed in Section 5.

1. Introduction

Background

- 1.1 Phlorum Ltd has been commissioned by Montagu Evans to undertake a Preliminary Ecological Appraisal (PEA), with a Bat Building Inspection (BBI) to inform the potential ecological constraints of proposed future development of Castle Mews, Camden, NW1 8SU (hereafter referred to as "the site").
- 1.2 The purpose of the Preliminary Ecological Appraisal was:
 -  to identify the major habitats present;
 -  to identify the potential for any legally protected species to be present; and
 -  to recommend any additional ecological surveys, if required.
- 1.3 As part of the assessment, a desktop review and a site visit were carried out. The results of which were used to assess the nature conservation importance of the site and the potential of the site to support protected species.
- 1.4 This report has been compiled in accordance with current guidelines (British Standard 42020:2013 Biodiversity. Code of Practice for Planning and Development, 2013 and CIEEM, 2017 and 2018).
- 1.5 It is understood that the proposed development is for the redevelopment of the railway arches and partial demolition of the onsite building.






Site Location

- 1.6 The site is located in a predominantly urban and residential area. A trainline runs over the top of the site and a park is located approximately 0.12km to the north. The Grand Union Canal is located approximately 0.3km to the south of site and the A5202 is located 0.3km to the east.
- 1.7 The National Grid Reference for the centre of the site is TQ 28612 84641. The survey area extended over approximately 0.2 hectares (ha).

2. Methodology

Desk Study & Consultations

Database and Map Search









- 2.1 The desktop study involved conducting database searches for statutory and non-statutory designated sites, legally protected species and features of interest within a 2km radius of the site. The database and map search was based on available information provided by the following sources:
-  Greenspace information for Greater London (2024);
 -  Multi-Agency Geographical Information for the Countryside (MAGIC, 2024);
 -  Ordnance Survey mapping;
 -  Aerial photography; and
 -  The Woodland Trust online Ancient Tree Inventory.
- 2.2 The desktop study also involved a search of all international designated sites within 12km of the site.

Habitat Survey and Assessment








- 2.3 Phlorum Limited carried out an ecological survey of the site on 18th June 2024. The survey was carried out by a suitably qualified ecologist, Rachel Wilkinson, who has over 2 years' professional experience of undertaking ecological surveys. The survey results and assessment was reviewed by Paul Carter (BSc (Hons), MBA, MCIEEM), an ecologist with over twenty years of experience of managing ecological and landscaping projects, and by the project director Richard Schofield (BSc (Hons), MSc, CSJK, MCIEEM, MIEMA, CEnv), with over twenty years of experience in managing projects. The weather conditions during the survey were sunny and warm with a light breeze.
- 2.4 The field survey comprised a walkover inspection of the land and habitats present. The survey followed standard Phase 1 survey methodology (JNCC, 2010) and covered all accessible parts of the site, including boundary features. The description of the site habitats has used the code/referencing from The UK Habitat Classification User Manual Version 2.0 (UKHab 2023). UKHab uses primary habitat codes, either on their own or followed by one or more secondary codes. Each individual code is separated by a space. Habitats were described and mapped (Figure 1: Appendix A). A list of plant species was compiled, together with an estimate of abundance made according to the DAFOR scale. The DAFOR scale provides an estimate of the relatively abundance of plant species within the Survey Area (Appendix D).
- 2.5 This assessment provides information on the habitats in the survey area and identifies actual or potential presence of legally protected or otherwise notable species/habitats in or immediately adjacent to the site.

- 2.6 Target notes highlighting a particular feature of ecological interest are provided in Appendix B, with associated photographs.
- 2.7 Scientific names are given after the first mention of a species, thereafter, common names only are used. Nomenclature follows Stace (2010) for vascular plant species.

Protected Species Assessment

- 2.8 The potential for the site to provide habitat for protected species was assessed from field observations in conjunction with results of the desk study. The site was inspected for indications of the presence of protected species including:
-  Habitat considered suitable to support widespread reptile species including areas with a scrub/grassland mosaic and potential hibernation sites;
 -  On-site ponds offering potential breeding opportunities for great crested newts (*Triturus cristatus*) and the presence of suitable terrestrial habitat including hedgerows and rough grassland;
 -  The presence of features in and on trees indicating potential for roosting bats (Chiroptera), including knot and rot holes and loose bark. Secondary evidence of bats including staining, droppings, and feeding remains were also looked for;
 -  The presence of nesting habitat for breeding birds, including mature trees, dense scrub, and hedgerows, and direct evidence of bird nesting including bird song, old nests etc.;
 -  Habitats considered suitable to support badger (*Meles meles*) setts, and evidence in the form of hair, pathways, and latrines;
 -  Presence of woodland and/or hedgerows providing suitable habitat to support hazel dormice (*Muscardinus avellanarius*);
 -  Riparian habitat supporting suitable features for water voles (*Arvicola amphibius*) and otters (*Lutra lutra*); and the
 -  Presence of nationally protected and/or invasive plants.
- 2.9 The potential presence for protected species is categorised as **Negligible, Low, Moderate, High, or Present**, based on the findings of the field survey and on the evaluation of existing data. However, the potential presence for bats is categorised as **None, Negligible, Low, Moderate, or High** (Collins, 2023).
- 2.10 The purpose of this assessment is to identify whether more comprehensive Phase 2 surveys for protected species or mitigation should be recommended.

Bat Building Inspection (Preliminary Roost Assessment)

- 2.11 The Bat Building Inspection (BBI), also referred to as a Preliminary Roost Assessment (PRA) was carried out on 18th June 2024. The survey was undertaken in accordance with good practice guidelines (Collins, 2023). The survey was carried out by Rachel Wilkinson with over two years survey experience. The survey results and assessment was reviewed by Paul Carter a holder of a Bat Class Licence Level 1 CL17 (Ref: 2020-44978-CLS-CLS), and by the project director Richard Schofield a holder of a Bat Class Licence Level 1 CL17 (Ref: 2021-51095-CLS-CLS). The interior and exterior of the buildings were inspected closely with the aim of identifying the presence of bats and any secondary evidence together with any potential roost sites. Secondary evidence includes droppings, feeding remains, scratch marks and oil and urine staining.
- 2.12 The external inspection was carried out first and comprised a detailed search of all accessible architectural features for bat droppings, urine staining, scratch marks, staining around suitable crevices and feeding remains.
- 2.13 The internal inspection was then carried out, where it was safe to do so. A high-powered torch was used to illuminate internal features at height, for instance the apex of the roof and associated supporting beams, and these were inspected using close focusing binoculars when required.
- 2.14 Where access permitted, roof voids were also inspected. This comprised a search of the floor area and other flat surfaces, including stored materials, in order to find evidence of discarded feeding remains and bat droppings. Internal features such as the roof lining were examined to assess actual or potential roost opportunities.
- 2.15 In accordance with current standing advice issued by Natural England (2015), the following types of bat roosts were considered during the assessment:
-  Day Roost - where individual bats, or small groups of males, rest or shelter in the day
 -  Night Roost - where bats rest or shelter at night between foraging in the active period, but rarely during the day
 -  Feeding 'Perch' Roost - where bats hang to eat or catch their prey or rest at night between feeding sessions.
 -  Hibernation Roost - where bats are found during winter. These roosts typically comprise a stable environment where bats can enter torpor; these areas are normally of a constant temperature.
 -  Transitional or Occasional Roost - where individual or small numbers of bats gather at a temporary site before and after hibernation.
 -  Maternity Roost – where female bats give birth and raise their young.
 -  Satellite Roost – an alternative roost found in close proximity to the main nursery roost colony and used by a few individual breeding females to small group of breeding females through the breeding season.

Tree Assessment for Bats

- 2.16 The none, negligible, low, moderate, high classification for potential bats roots in trees do not work well, so the following table is use (Collins, 2023).

Table 2.1: Guidance for assessing the suitability of trees on proposed developments site for bats

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

- 2.17 When a potential roost feature (PRF) is found Table 2.2 provides the guidance to assessing it (Collins, 2023).

Table 2.2: Guidance for categorising the potential suitability of PRFs on a proposed development site for bats

Suitability	Description
PRF-I	PRF is only suitable for individual bats or very small number of bats either due to size or lack of suitable surrounding habitats.
PRF-M	PRF is suitable for multiple bats and may therefore be used by a maternity colony.

Caveat

Data Search Constraints

- 2.18 It is important to note that, even where data is held, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest; the area may be simply under-recorded.

Survey Constraints

- 2.19 Ecological surveys are limited by factors that affect presence of plants and animals such as seasonality. Whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation of the environment.

- 2.20 The survey was carried out during the growing season and therefore most species would be expected to be visible and identifiable.
- 2.21 The appraisal does not constitute a full botanical survey, or a Phase 2 pre-construction survey that would include accurate GIS mapping for invasive or protected plant species. This survey provides a preliminary view of the likelihood of protected species occurring on the site based on the suitability of the habitat, known distribution of the species in the local area, and any direct evidence on the site. It is therefore used as a tool to recommend further protected species surveys (or other species of significant nature conservation interest) if on the basis of the preliminary assessment or during subsequent surveys, it is considered reasonably likely that protected species may be present.
- 2.22 It is however considered that the survey was sufficiently rigorous to assess the ecological value of the site.

Bat Survey Constraints

- 2.23 Bats are mobile animals which can move roost sites throughout the year. It is possible that surveys carried out in June may miss roosts not occupied until later in the year. However, where undisturbed, it is generally possible to find secondary evidence of bats throughout the year.
- 2.24 It is considered that the survey was sufficiently rigorous to assess the ecological value of the site for the purposes of this assessment.

Limitations

- 2.25 This appraisal also does not constitute as a full invasive species survey. All surveys are subject to the conditions on site at the time of the survey. Site surveys are non-intrusive and rely on the visual identification of aboveground growth. If parts of a site are inaccessible, then these areas can often not be surveyed unless they can be viewed from other areas. If any aboveground growth is being managed or has been disturbed or covered, or the below ground growth is dormant, then it may be impossible for us to identify invasive plants in these areas during our non-intrusive survey.

3. Baseline Conditions

Desk Study

Aerial Photography and OS Maps

- 3.1 Aerial photographs and OS maps show the site to be predominantly urban and residential. A trainline runs over the top of the site and a park is located approximately 0.12km to the north. The Grand Union Canal is located approximately 0.3km to the south of site and the A5202 is located 0.3km to the east. There appear to be no ponds and one canal within 500m of the site.

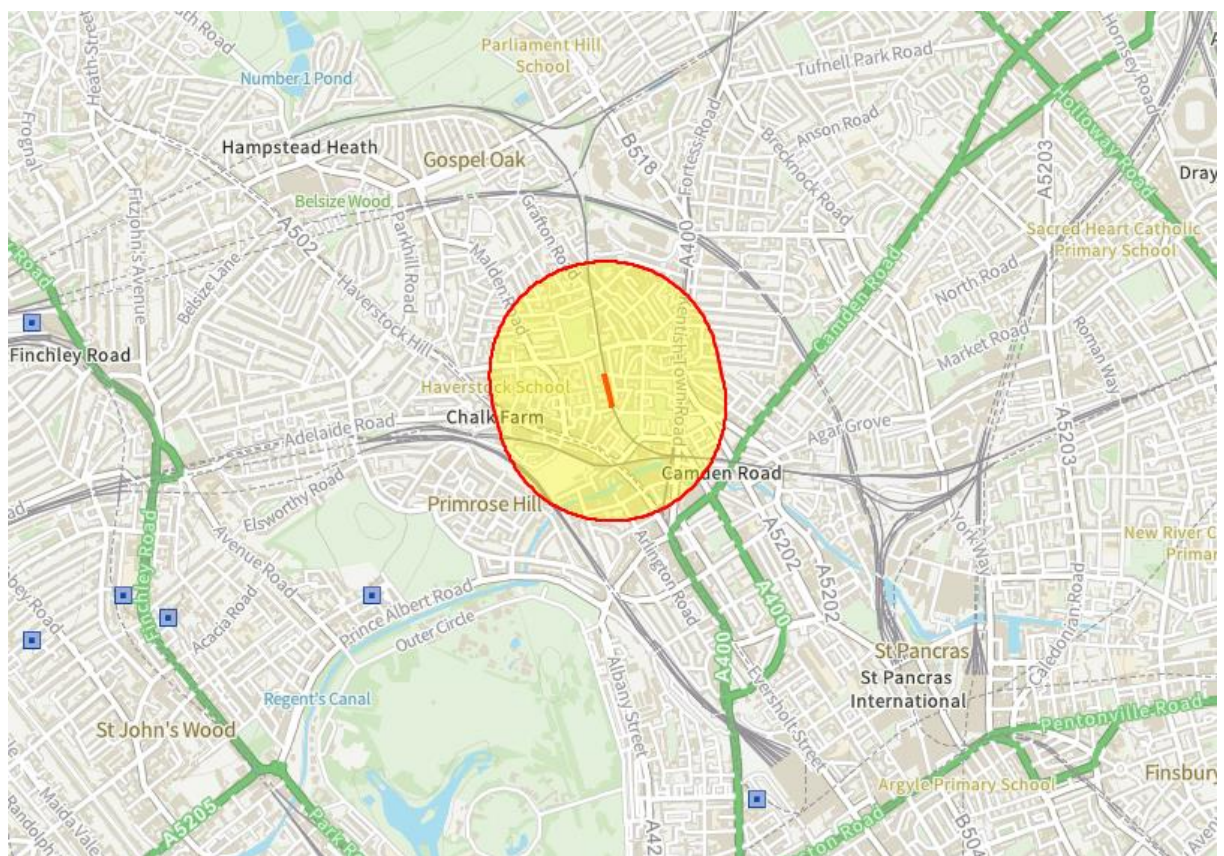


Image 1 Map of European Protected Species Licenses (EPSL) (Magic, 2024). There are no EPSL within 500m of site. The site is shown outlined in red and a 500m buffer is shown in yellow. EPSL for bats are shown as blue squares, there are no other EPSL in the vicinity of the site.

- 3.2 Image, one shows European Protected Species Licenses (EPSL) in the vicinity of the site. The nearest EPSL is located approximately 1.3km southwest of the site and was granted for Soprano pipistrelle (*Pipistrellus pygmaeus*) and Common pipistrelle (*Pipistrellus pipistrellus*) bats (License number: EPSM2012-4961).

Statutory and Non-Statutory Designated Sites

Statutory International Sites

- 3.3 The closest international statutory designated site is Lee Valley RAMSAR. Table 1 provides a list of statutory international sites within 12km of the site.

Table 1: Statutory international sites within 12km of the site

Site Name	Reason for Designation	Area (ha)	Distance from the Site
Lee Valley RAMSAR	A series of embanked water supply reservoirs, sewage treatment lagoons, and former gravel pits extending along about 24km of the valley from near Ware southward to Finsbury Park in London.	451.3	6.8km to the northeast
Lee Valley Special Protection Area (SPA)	The Lee Valley Regional Park is a mixture of old and new habitats all of which result in some degree from human intervention. This intervention and mosaic of wetland habitats has created many opportunities for wildlife, where across the UK wetland habitat is increasingly under threat.	451.3	6.8km to the northeast
Epping Forest Special Area of Conservation (SAC)	Epping Forest represents Atlantic acidophilous beech forests in the north-eastern part of the habitat's UK range. Although the epiphytes at this site have declined, largely as a result of air pollution, it remains important for a range of rare species, including the moss <i>Zygodon forsteri</i> .	1628.87	11km to the northeast

Statutory National and Local Sites

- 3.4 The closest statutory national and/or local designated site is Adelaide Local Nature Reserve (LNR). Table 2 provides a list of statutory national and local sites within 2km of the site.

Table 2: Statutory national and local sites within 2km of the site.

Site Name	Reason for Designation	Area (ha)	Distance from the Site
Adelaide LNR	The reserve has a summer meadow, pond, areas of scrub and small woodland.	0.28	0.98km to the southwest
Belsize Woods LNR	There is a pond, bird feeding area, large insect house, Stag beetle loggeries, bird boxes and other biodiversity enhancing features. Belsize Wood has a broad diversity of insect species, probably due to a floral diversity within the LNR.	0.27	1.2km to the northwest
Camley Street Nature Park LNR	The reserve provides natural habitat for birds, butterflies, amphibians and a rich variety of plant life. Species - Rare earthstar fungi; reed warblers, kingfishers, geese, mallards, and reed buntings; bats.	0.84	1.7km to the southeast

Non-Statutory Sites

- 3.5 There were 24 non-statutory sites within 2km of the site. The five closest sites are listed below in Table 3.
- 3.6 The closest non-statutory designated site is Rochester Terrace Gardens Sites of Importance for Nature Conservation (SINC).

Table 3: Non-statutory sites within 2km of the site

Site Name	Reason for Designation	Area (ha)	Distance from the Site
Rochester Terrace Gardens SINC	This small public garden has a good number of (mostly non-native) trees, such as London plane (<i>Platanus x hispanica</i>), weeping ash (<i>Fraxinus excelsior</i> var. <i>pendula</i>), common lime (<i>Tilia x europaea</i>), horse-chestnut (<i>Aesculus hippocastanum</i>) and oak (<i>Quercus robur</i>).	0.44	0.5km to the southeast
Kentish Town City Farm SINC	The railsides are varied and support a variety of habitats including blocks of secondary woodland dominated by	6.57	0.65km to the north

	sycamore (<i>Acer pseudoplatanus</i>) with ash (<i>Fraxinus excelsior</i>) and silver birch (<i>Betula pendula</i>). These are interspersed with areas of scrub, grassland and tall herbs		
Chalk farm Embankment and Adelaide Local Nature Reserve	This steep-sided railway embankment, lying between Adelaide Road and railway sidings, is densely vegetated with secondary woodland	0.92	1.1km to the southwest
Primrose Hill SINC	This area of Regent's Park consists mostly of mown amenity grassland with scattered groups of mature trees (located around the hill itself and at the park's perimeter).	25.26	1.32km to the southwest
Belsize Wood Local Nature Reserve and Russell Nurseries Woodland Walk SINC	The site regularly hosts numbers of birds such as great tit, blue tit, long-tailed tit, wren, robin, great spotted woodpecker, blackbird and the song thrush which has dramatically declined in London.	0.7	1.36km to the northwest

Ancient Woodland

- 3.7 There is no ancient woodland covering any part of the site or immediately adjacent to the site. No trees on or adjacent to the site are listed on the Woodland Trusts' Ancient Tree Inventory.
- 3.8 The closest area of ancient woodland is situated 2.7km to the northwest.

Priority Habitat

- 3.9 Priority habitats are habitat types or elements with unique or significant value to a diverse assemblage of species.
- 3.10 There is no priority habitat within 500m of the site. The closest priority habitat is an area of deciduous woodland located approximately 700m north of the site.

Habitats

Site Summary

- 3.11 The site comprised buildings, developed land sealed surface, individual trees and ruderal/ephemeral vegetation.
- 3.12 The main habitats recorded within the site are described below. The UKHab code is shown in the bracket after the habitat type (UKHab 2023). Additional details are shown on the habitat survey plan in Appendix A, and the target notes are listed in Appendix B.

- 3.13 The land surrounding the site is predominantly urban and residential. A trainline runs over the top of the site and a park is located approximately 0.12km to the north. The Grand Union Canal is located approximately 0.3km to the south of site and the A5202 is located 0.3km to the east.

Buildings (u1b5)

- 3.14 There were four buildings on site (B1 to B4). Three of these were built into the brick arches of the train lines and the fourth building was built adjacent to the railway lines. For buildings one through three the roof consisted of the brick arches of the trainlines. There were some areas of cracks and gaps in the brick work that could allow bats to enter the buildings. Building four (B4) had a pitched felted roof that appeared to be in poor condition, and it is suspected that this roof contains asbestos. There were a number of skylights within the roof.

Hardstanding (u1b)

- 3.15 The site was primarily hardstanding with a long concrete area to the front of the buildings. To the rear of building four there was a small hardstanding area.

Ruderal Vegetation (u1 81)


- 3.16 There was ruderal vegetation across the site with the highest concentration being in the hardstanding area to the rear of building four. This covered an area of approximately 20m² and included species of Sycamore (*Acer pseudoplatanus*), bramble (*Rubus fruticosus*) and yellow fumitory (*Corydalis lutea*).

Individual trees (u 200)

- 3.17 There were a number of individual trees to the west of the site. Species present were primarily sycamore (*Acer pseudoplatanus*).

Target Note (TN)

- 3.18 The following features of interest were noted during the survey and have been marked on Figure 1:

 **TN1 – Buddleia.**

Bat Building Inspection (Preliminary Roost Assessment)

Building One (B1)

- 3.19 Building one was a business premises made up of brick. The building was built into the railway arches with the trainlines sitting above the building on what would ordinarily be the roof.
- 3.20 Internally the structure was brick built within a railway arch. Plasterboard had been placed on the walls and roof of some rooms which had come loose in some areas leaving gaps in which bats could potentially roost. Other rooms had not been plaster boarded and the walls and roof were entirely brickwork.
- 3.21 No bats or secondary evidence of bats were found during the initial inspection.

3.22 Ingress opportunities were present in a gap in the brickwork on the southern wall of the building. Light could be seen entering from outside the building.

3.23 Overall, building one was assessed as having **low** potential to support roosting bats.

Building Two (B2)

3.24 Building two was an open railway arch which was not sealed on either side. The building was made entirely of bricks with a trainline running over the top.

3.25 No bats or secondary evidence of bats were found during the initial inspection. However, there were gaps in the brickwork on the eastern side of the arch where the adjoining wall had separated. This provided a potential roosting area for bats.

3.26 Overall, building two was assessed as having **low** potential to support roosting bats.

Building Three (B3)

3.27 Building three was an open railway arch at the front which was sealed on the eastern side with wood. The building was made of bricks and wood with a trainline running over the top and bricks forming the roof.

3.28 During the survey, the only potential bat roosting areas was in between the wooden boards that had been used to seal the eastern side of the building.

3.29 Overall, building three was assessed as having **low** potential to support roosting bats.

Building Four (B4)

3.30 Building four was a long building built adjacent to the railway lines. The building had a pitched felted roof with a number of skylights. Internally there was a large open space with a number of railway arches on the eastern side of the building. One arch had windows, others had previously had windows which were bricked or boarded up at the time of the survey. Another had previously been open and had been sealed with wooden slats, several of which had large gaps in between.

3.31 Overall, the onsite buildings have a **low** potential to support roosting bats.

Tree Assessment for Bats

3.32 In total 8 trees and 1 group of trees were assessed, species present included sycamore and elder (*Sambucus nigra*). All the trees assessed on site were assessed as NONE (no potential roost features) as they did not have any visible potential roosting features at the time of the survey or were considered to be relatively young and small with no potential to support roosting bats.

Protected Species

3.33 Legislation relating to the protected species referred to in this section is included in Appendix C.

3.34 The following paragraphs detail the suitability of the on-site habitats to support protected species and include information from the data search for protected, rare and otherwise notable species returned within a 2km radius.

Bats

- 3.35 The data search showed records of bats from the genera pipistrelle (*Pipistrellus*), long eared (*Plecotus*), myotis (*Myotis*), serotine (*Eptesicus*) and Noctule/Leisler's (*Nyctalus*), occurring within the 2km search area in the past 15 years.
- 3.36 During the survey potential bat roosting features were seen in the buildings. There were a number of gaps in the brickwork that would allow bats to enter the building.
- 3.37 The onsite trees were assessed as NONE.
- 3.38 Overall it was considered that the buildings offered **low** potential for roosting bats and the onsite trees offered **negligible** potential for roosting bats.

Amphibians

- 3.39 The nearest toad patrol is located approximately 11.2km to the southeast of the site.
- 3.40 The data search showed no records of great crested newt within 2km of the site within the past 15 years. Aerial photographs and maps show no ponds within 500m of the site. The Grand Union Canal is located approximately 300m south of the site. This is a concrete working canal in an urban area and is obstructed by residential properties and roads. It is highly unlikely that great crested newts would use this waterway.
- 3.41 During the survey no features were seen that could support breeding, foraging, or commuting newts.
- 3.42 It was considered that the site offered **negligible** potential for breeding newts and **negligible** potential for foraging and commuting newts.

Reptiles

- 3.43 The data search showed no records of reptiles within 2km of the site within the past 15 years.
- 3.44 The habitat on the site was not considered to be suitable for reptiles.
- 3.45 Overall the site was assessed as having **negligible** potential to support reptiles.

Birds

- 3.46 Several Red or Amber listed Birds of Conservation Concern¹ (BoCC), and notable² bird species were returned by the data search that may utilise habitats within the site. Species include swift (*Apus apus*), herring gull (*Larus argentatus*) and starling (*Sturnus vulgaris*).

¹ Birds of Conservation Concern status is prioritised into high concern (Red), medium concern (Amber) and low concern (Green) (Eaton et al, 2009). Red-list species are those that are globally threatened according to the IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and have not shown a substantial recent recovery. Amber-list species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations. Green-list species are those that fulfil none of the criteria.

² Notable Birds are based on a list of birds that are particularly scarce or vulnerable either at national or a regional level. The majority of these bird species are designated as Schedule 1 species, under the Wildlife and Countryside Act 1981 (as amended), or listed as red or amber-listed BoCC.

3.47 During the survey it was noted that the onsite buildings provided suitable habitat for nesting birds and several birds were seen within the building.

3.48 Overall, it was considered that the site offered **high** potential for breeding birds.

Badgers

3.49 Records for this species are kept confidentially and were not returned by the data search.

3.50 The habitats on site were not suitable for either breeding or foraging badgers.

3.51 Overall, the site offered **negligible** potential for breeding badgers and **negligible** potential for foraging and commuting badgers.

Hazel Dormice

3.52 The data search showed no records of dormice within 2km of the site within the past 15 years.

3.53 The site did not contain the type or density of vegetation that would be suitable for supporting either breeding or commuting dormice.

3.54 Overall it was considered that the site offered **negligible** potential to support breeding dormice and **negligible** potential to support commuting dormice.

Water Voles and Otters

3.55 The data search showed no records of water vole within the 2km search area in the past 15 years.

3.56 The data search showed records of otter within the 2km search area in the past 15 years.

3.57 The site did not contain the aquatic habitat and vegetation types that would support breeding, foraging or commuting water vole.

3.58 Overall it was considered that the site offered **negligible** potential to support breeding water voles and otters and **negligible** potential to support commuting and foraging water voles and otters.

Hedgehogs

3.59 The data search showed no records of hedgehogs (*Erinaceus europaeus*) within 2km of the site within the past 15 years.

3.60 There was no evidence of hedgehogs, however there was some dense vegetation to the west of the site around the base of the trees seen during the survey.

3.61 Overall, the site offered **low** potential for hedgehogs.

Other Mammals

3.62 During the survey Foxes (*Vulpes vulpes*) were observed within building four.

3.63 This species are protected under the Wild Mammals Protection Act (1996).

3.64 A precautionary approach to site clearance in regard to this species is recommended.

Stag Beetles

- 3.65 The data search showed records of stag beetle (*Lucanus cervus*) within 2km of the site within the past 15 years.
- 3.66 There was no evidence of stag beetle, or the habitat they require seen during the survey.
- 3.67 Overall, the site offered **negligible** potential for stag beetle.

Invasive Plants

- 3.68 The data search showed records of plant species including Japanese knotweed (*Reynoutria japonica*), Himalayan balsam (*Impatiens glandulifera*) and Giant hogweed (*Heracleum mantegazzianum*) occurring within the 2km search area in the past 15 years. These plants were all listed as invasive in Schedule 9 Part II of the Wildlife and Countryside Act (1981 amended). However, giant hogweed (*Heracleum mantegazzianum*) and Himalayan balsam (*Impatiens glandulifera*) are no longer listed under Schedule 9 Part II of the Wildlife and Countryside Act (1981 amended), but are now listed under the Invasive Alien Species (Enforcement and Permitting) Order 2019.
- 3.69 During the survey specimens of buddleia (*Buddleia davidii*) were seen (See Target Note 1 and Photograph 1 in Appendices A & B). While not listed in Schedule 9 Part II of the Wildlife and Countryside Act (1981 amended), it appears on the Non-Native Species Secretariat (NNSS, 2023)³ register of species that are of concern.






³ GB Non Native Species Secretariate (NNSS) (2023). Accessed from www.nonnativespecies.org

4. Evaluation

- 4.1 On the basis of the information available from the habitat survey and desk study, the site has been evaluated in terms of its potential for biodiversity, support of protected species and habitats, and the contribution the area makes as part of the wider landscape. The nature conservation value of the site has been assessed following standard criteria developed by CIEEM (2017 and 2018) and in accordance with BS 24040:2013 Biodiversity – code of practice for planning and development. This is provided below.
- 4.2 The biodiversity value of protected species within the site is a preliminary evaluation based upon the desk study records, habitat suitability, and the conservation status of the species in question. It should be noted that where European Protected Species (EPS) or species of Principle Importance for the Conservation of Biodiversity are present on-site they may be valued at a lower level/scale where it is considered likely that populations would not be of sufficient importance to justify designation at a higher level. However, regardless of their biodiversity value, such species are still subject to national and/or European legislation.
- 4.3 Key aspects of relevant planning policy regarding conservation, including an explanation of species referred to as being of 'Principal Importance for Conservation of Biodiversity' and European Protected Species and habitats, are provided in the Legislation section in Appendix C.

Geographic Evaluation

Features of International Importance

- 4.4 Features of International Importance are principally sites covered by international legislation or conventions. The Conservation of Habitats and Species Regulations 2017 (as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019) implements the Natural Habitats and Wild Fauna and Flora (92/43/EC) (Habitats Directive) in England and Wales. The Regulations mainly deal with the protection of sites with certain habitats and populations of species that are important for nature conservation in a European context, i.e. Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).
- 4.5 The site is not subject to any international statutory nature conservation designations. The International important sites within 12km of the site are:
-  Epping Forest SAC;
 -  Lee Valley SPA; and
 -  Lee Valley RAMSAR.
- 4.6 The designated habitats/qualifying species of these international sites are:
-  Epping Forest SAC, Beech Forests, Heathland and Stag Beetle;
 -  Lee Valley SPA, Bitter, Gadwall, Northern Shoveler; and

-  Lee Valley RAMSAR, gadwall, Shoveler.

- 4.7 These designated habitats/qualifying species do not impact on the site, as there is no suitable habitat for these species on site.

Features of National Importance

- 4.8 Features of national importance include Sites of Special Scientific Interest (SSSIs) which are designated under the Wildlife and Countryside Act 1981 (as amended). The site is not subject to any national statutory nature conservation designations and it is not considered that any habitats or populations or assemblages of species within the site would meet the criteria for the designation of SSSIs at an appropriate geographic level⁴.
- 4.9 The closest designated site of national importance for nature conservation is Adelaide LNR located 0.98km to the southwest. The site does not provide any supporting habitat for this LNR.
- 4.10 The site is also located within the 5km Impact Risk Zone of Hampstead Heath SSSI, but the site does not have any supporting habitat for this SSSI.

Features of Regional (i.e. London) Importance

- 4.11 The site does not include any features of value at this level neither is it likely to be selected as a SINC based on the results of the current survey.

Features of District (i.e. Camden) Importance

- 4.12 The site is relatively small and does not support any features that were considered to be of value at this level.

Features of Local (i.e. Haverstock) Importance

- 4.13 The site does not support any features that were considered to be of value at this level.

Features of Value Immediate Vicinity (c. 250m) of the Project

- 4.14 The on-site vegetation is of value within the immediate vicinity and provides suitable habitat to support protected species including breeding birds and bats. It also forms part of the wider ecological network of habitats in the locality, providing wildlife corridors for mobile species to move through the landscape.

Summary


- 4.15 Overall on the basis of the survey results and the above criteria, habitats within the site are considered largely to be of ecological value within the immediate vicinity only. The site provides suitable habitat to support several protected species and groups including bats and breeding birds. However, populations of these are unlikely to be locally significant.

⁴ JNCC Guidelines for selection of biological SSSIs (see <http://jncc.defra.gov.uk/page-2303#download>).

Local Plan Evaluation

- 4.16 It is considered that the statutory Camden Local Plan (Adopted 2017) contains the following nature conservation policies relevant to the site. A list of the policies is provided below. The full text of the relevant policies is contained in the Legislation section in Appendix C and this should also be referred to.

Camden Local Plan (2017)

-  Policy A3 Biodiversity.

London Local Plan (2021)

-  Policy G6 Biodiversity and access to nature.

5. Discussion and Recommendations

Discussion

- 5.1 The survey site is located at Castle mews, Camden, NW1 8SU. The survey area extended over approximately 0.2 hectares (ha). Habitats to be impacted by the development proposals include ruderal and ephemeral vegetation.
- 5.2 Design proposals include the redevelopment of the railway arches and partial demolition of the onsite building.
- 5.3 Habitats within the proposed development area were assessed as being of value to wildlife within the local vicinity with potential to support bats, hedgehogs and breeding birds and these species may pose a constraint to works.
- 5.4 It is recommended that targeted surveys in respect to bats are undertaken in order to determine presence or likely absence.
- 5.5 In addition, a precautionary approach to site clearance in respect to bats, hedgehogs and breeding birds is recommended to minimise any adverse impacts on these species groups.
- 5.6 Details regarding specific mitigation, including further surveys and precautionary working practices together with habitat enhancement measures are provided below.

Recommendations

Breeding Birds

- 5.7 The on-site buildings and vegetation provide suitable nesting habitat for a range of bird species. All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended).
- 5.8 In order to avoid any potential impact on breeding birds, the clearance of vegetation or buildings should be undertaken outside the main bird nesting season which runs from March to August inclusive⁵, with clearance works possible between September and February. Where this is not possible, an ecologist would need to check the vegetation for active nests and signs of bird breeding activity.
- 5.9 In the event that a nest is found, an exclusion zone around the nest would be established. Works would have to cease within this buffer area until the young birds have fledged.

⁵ It should be noted that this is the main breeding period. Breeding activity may occur outside this period (depending on the particular species and geographical location of the site) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.


Bats

- 5.10 Bats receive protection under The Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (as amended).
- 5.11 Due to the building's low potential suitability to support roosting bats, a single emergence or re-entry survey is recommended in order to provide information on if and how bats are using the site. This survey must be undertaken during the peak active period for bats taken to run between May and August.
- 5.12 The results of the bat survey can then be used to inform specific mitigation and enhancement measures for this species group to include a lighting scheme that is sympathetic to bats.
- 5.13 Where a roost is likely to be impacted by the works, and where avoidance is not possible, it may be necessary to obtain a European Protected Species Mitigation (EPSM) Licence before the works can proceed and to complete any necessary mitigation.
- 5.14 Such a licence would need to be obtained from Natural England once full planning permission is in place. The application will require the drafting of a detailed mitigation strategy including timing and construction methods in addition to the mitigation measures proposed. Natural England currently require 30 working days to determine a licence application.
- 5.15 If a bat roost is found for a common bat species and the roost is of low conservation value, then a Low Impact Class Licence may be obtained for the site instead. This type of licence is typically obtained within 15 days.

Hedgehogs

- 5.16 Hedgehogs are listed on the Natural Environment and Rural Communities (NERC) Act 2006 Section 41 as a Species of Principal Importance and a London BAP Priority Species. They are a rapidly declining species.
- 5.17 Hedgehogs need short grass areas to search for invertebrate prey. Log piles and decaying vegetation are used to forage and hibernate in. Areas of leaf litter can be collected and used in nests. Dense scrub areas are also useful to build hibernation nests during winter. Wildlife friendly corridors allow hedgehogs and other wildlife to migrate across a site. These are discussed in the Wildlife Friendly Pathways Section below.

Other Mammals

- 5.18 Wild Mammals including foxes receive protection from intentional acts of cruelty under The Wild Mammals Protection Act (1996).
- 5.19 Under this legislation it is an offence to:
 -  mutilate, kick, beat, nail, or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.
- 5.20 Due to the presence of foxes within the onsite buildings during the initial survey a precautionary approach to site clearance is recommended in regard to this species.
- 5.21 Prior to the commencement of any demolition works a site walkover must be completed by the ecologist to ensure that no mammals are present onsite.

Habitat Retention

- 5.22 All retained trees, including all adjacent off-site trees should be protected in accordance with British Standards (BS 2012) 5837:2012 Trees in Relation to Design, Demolition and Construction. The root protection areas of any retained trees must be left free from excavation and disturbance, and protected during any proposed works. Protection should be in the form of fencing and signs installed for the duration of the works.

Habitat Enhancement

- 5.23 New development offers the opportunity for habitat enhancement in accordance with national and local planning policy and some recommendations are included below.

Control of Invasive Non-Native Species (INNS)

- 5.24 Although it is not illegal to have species listed under the Schedule 9 Part II of the Wildlife and Countryside Act 1981 (as amended), it is illegal to permit these species to spread and grow in the wild.
- 5.25 We recommend that a member for the Property Care Association Invasive Weed Control Group (PCA IWCG) is contacted to manage the invasive weed Buddlei.

Bird and Bat Boxes and Bricks

- 5.26 Additional bird nesting and bat roosting provision could be incorporated into new design proposals. These could either be installed on trees or incorporated into the new building design. Some recommendations are made below as a guide.
- 5.27 Bat roosting opportunities could be provided through the installation of boxes on the outside of the walls or remaining trees, such as the Schwegler 2F, or other makes of a similar design, such as Chavenage Bat box. There are a range of bat boxes available and these can be selected to suit the development and bat species in the locality.
- 5.28 Bird boxes could be installed on the walls of the new building or in the remaining trees which could include the following Schwegler bird house or 1B makes, or similar designs from alternative suppliers. If the client is happy for bird boxes to be installed on the walls of the new building then a Schwegler sparrow terrace 1SP could also be used.
- 5.29 Further details of the bird and bat boxes are provided in Appendix F.
- 5.30 Bat boxes should be installed at appropriate locations ideally with south-east, south, or south-west facing aspects at least 3m from ground level. Ideally they need to be exposed to 6-8 hours of direct sunlight, but sheltered from strong winds. If installed on the building, these should ideally be positioned directly below the eaves.
- 5.31 Bird Boxes should be located out of prevailing wind, rain, and strong sunlight, ideally with a clear flight path to the entrance. Ideally they should be installed two to four metres from the ground facing north or north-east.

Wildlife Friendly Pathways





- 5.32 The increase in building can result in ecological areas which are unconnected. Effectively these are ecological islands, and often there is no way for wildlife to migrate to and from these areas. One way to reduce the impact and allow wildlife, including hedgehogs, to migrate across sites is to install wildlife friendly pathways across a site. This can include a range of things such as wildlife corridors, such as hedgerows and scrub or rough grassland corridors, but also installing holes in fences. Wildlife holes, often referred to as hedgehog holes, help wildlife migrate through areas. The holes need to be at least 13cm by 13cm, at ground level.

Compensatory Planting

- 5.33 Additional tree and shrub planting could be incorporated into the landscape proposals to compensate for any removal to facilitate the works. Planting should include a high proportion of native species and be of local provenance where possible. These should be carefully selected to ensure they contain species suitable for the area. Some species of known wildlife value are listed in Appendix E.

6. Conclusions

6.1 The site survey revealed the following habitats:

-  Ruderal/ ephemeral vegetation;
-  Individual trees;
-  Building; and
-  Developed land sealed surface.

6.2 The site is not subject to any statutory or non-statutory designations. The closest statutory site is Adelaide LNR located approximately 0.98km to the southwest at its closest point and the survey area does not support any features that contribute to the designation of this site.

6.3 The following protected species surveys are recommended in order to determine presence or likely absence:


-  Bats.

6.4 In addition, a precautionary approach to site clearance in respect to bats, mammals and breeding birds is recommended to minimise any adverse impacts on these species groups.

6.5 It has been recommended that the site is enhanced by introducing some compensatory planting and installing bat and bird boxes.

7. References

- British Standards Institute (2012). 5837:2012. *Trees in Relation to Design, Demolition and Construction – Recommendations*. Standards Policy & Strategy Committee. Milton Keynes: BSI.
- British Standards Institute (2013). 24040:2013. *Biodiversity-Code of Practice for Planning and Development*. Standards Policy & Strategy Committee. Milton Keynes: BSI.
- Camden Local Plan (2017)
- CIEEM (2017). *Guidelines for Preliminary Ecological Appraisal Second Edition*. Chartered Institute of Ecology and Environmental Management, Winchester.
- 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.
- Collins, J. (ed.) (2023). *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (4th edn). The Bat Conservation Trust, London.
- Department for Communities and Local Government (2023) *National Planning Policy Framework (NPPF)* (on-line). Available from: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf [Accessed on 25/06/2022/4].
- Froglife (2024) Find your nearest toad crossing. [on-line]. Available from www.froglife.org/what-we-do/toads-on-roads/tormap/.
- Greenspace Infrastructure for Greater London (2024) *An ecological data search for land at Castle Mews, Camden*. [Unpublished].
- ILP – Institute of Lighting Professionals (2018). Guidance Note 08/18 Bats and artificial lighting in the UK. Bats in the built environment series. ILP and the Bat Conservation Trust [on-line].
- ILP – Institute of Lighting Professionals (2023). Guidance Note 08/23 Bats and artificial lighting at night. ILP and the Bat Conservation Trust [on-line].
- Joint Nature Conservation Committee (2010). *Handbook for Phase 1 habitat survey - A technique for Environmental Audit*. JNCC, Peterborough.
- MAGIC - Multi-Agency Geographic Information for the Countryside (2024). *MAGIC* Natural England, Leeds. [on-line]. Available from: www.magic.gov.uk [Accessed on 25/06/2024].
- Schwegler (2024). *Bird and Nature Conservation Products* [on-line]. Available from <http://www.schwegler-natur.de> [Accessed on 25/06/2024].
- Stace, C.A. (2010). *New Flora of the British Isles* (3rd Ed.). Cambridge University Press, Cambridge.
- The London Plan (2021).

 UKHab Ltd (2023). *UK Habitat Classification Version 2.0* (at <https://www.ukhab.org>).

8. Glossary of Terms

BAP	Biodiversity Action Plan
BRC	Biological Records Centre
CIEEM	Chartered Institute of Ecology and Environmental Management
Habitats Directive	Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora
INNS	Invasive Non-native Species
LNR	Local Nature Reserve
LWS	Local Wildlife Site
MAGIC	Multi-Agency Geographical Information for the Countryside
NNR	National Nature Reserve
Nomenclature	The system of devising of names for plants
NPPF	National Planning Policy Framework
PCA IWCG	Property Care Association Invasive Weed Control Group
PEA	Preliminary Ecological Appraisal- formerly referred to as a Phase 1 Habitat Survey
SAC	Special Area of Conservation
SINC	Site of Importance for Nature Conservation
SPA	Special Protection Area
SSSI	Site of Special Scientific Interest

Figures and Appendices


Appendix A

Habitat Map and Target Notes



Target Notes (TN)



The following features of interest were noted during the survey and have been marked on Figure 1:



 **TN1 – Buddleia**

Appendix B

Photographs

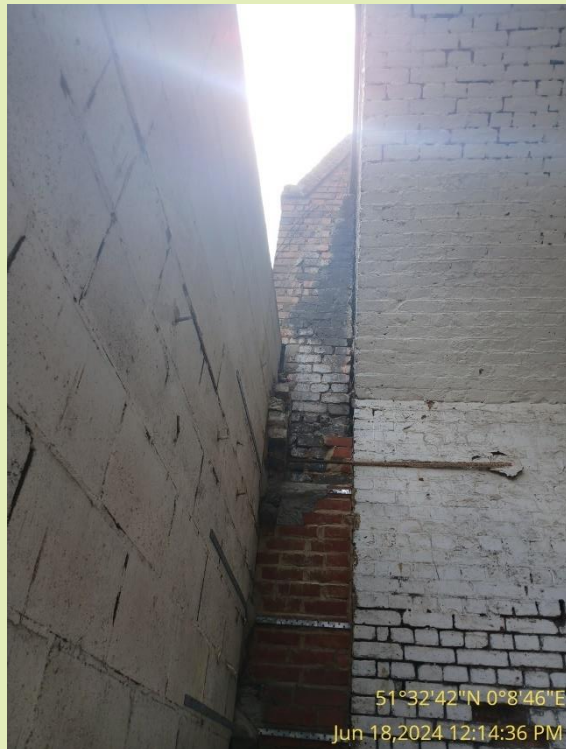
Photographs

Photo No.	Feature (Target Note No.)	Photograph of Feature
1	Target note 1 – Buddleia growing out of the top of the onsite building.	 <p>51°32'39"N 0°8'46"E Jun 18, 2024 12:07:12 PM</p>
2	Developed land; sealed surface with ruderal vegetation.	 <p>51°32'42"N 0°8'48"E Jun 18, 2024 12:19:56 PM</p>

3	External view of building one with no potential roost features seen.	 <p>51°32'44"N 0°8'48"E Jun 18, 2024 12:19:47 PM</p>
4	Potential entry point within building one.	 <p>51°32'43"N 0°8'46"E Jun 18, 2024 12:16:08 PM</p>
5	View of building two which was open to the front and rear.	 <p>51°32'42"N 0°8'47"E Jun 18, 2024 12:13:51 PM</p>

6




Potential roost feature in building two where there is a gap in the brickwork.






7

Building three sealed with wooden boards on the eastern side. There are gaps around the top of the boards providing a potential roost feature.



8	External view of building four with a potential entry point.	 <p>51°32'41"N 0°8'47"E Jun 18, 2024 12:01:57 PM</p>
9	Gap in the rear wall of building four providing a potential entry point.	 <p>51°32'39"N 0°8'46"E Jun 18, 2024 12:04:17 PM</p>
10	One of the rooms within building four which is sealed with wooden boards. Gaps in the boards provide a potential entry point.	 <p>51°32'40"N 0°8'46"E Jun 18, 2024 12:04:08 PM</p>

11	Windows within building four.	 <p>51°32'40"N 0°8'45"E Jun 18, 2024 12:08:54 PM</p>
12	Area of ruderal vegetation to the rear of building four.	 <p>51°32'39"N 0°8'46"E Jun 18, 2024 12:07:26 PM</p>
13	Trees to the west of the site	 <p>51.5444722 -0.1462973 51°32'40"N 0°8'47"E Nov 18, 2024 02:28:54 PM</p>

Appendix C

Legislation

Legislation

This section contains information pertaining to the legislation and planning policy applicable in Britain. This information is not applicable to Northern Ireland, the Republic of Ireland the Isle of Man or the Channel Islands. Information contained in the following appendix is provided for guidance only.






Species

The objective of the EC Habitats Directive⁶ is to conserve plants and animals which are considered to be rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2017 (as amended) (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and also implements the obligations set out for species protection from the Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.



Various amendments have been made since the Wildlife & Countryside Act came into force in 1981. Further details pertaining to alterations of the Act can be found on the following website: www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CROW) Act (2000) and Nature Conservation (Scotland) Act 2004.

There are a number of other legislative Acts affording protection to species and habitats. These include:

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

Badgers

Badgers and their setts are protected under the Protection of Badgers Act (1992), which consolidated and added to the previous Badger Acts of 1973 and 1991. Under this legislation it is an offence to:

-  cruelly ill-treat a badger, including use of tongs and digging;
-  intentionally or recklessly cause a dog to enter a badger sett;

⁶ Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora.

- ☛ intentionally or recklessly damage, destroy or obstruct access to a badger sett⁷ or any part thereof;
- ☛ intentionally or recklessly disturb⁸ a badger when it is occupying a badger sett;
- ☛ possess or control a dead badger or any part of a badger;
- ☛ sell or offers for sale, possesses, or has under his control, a live badger; and
- ☛ wilfully kill, injure, take, or attempt to kill, injure, or take a badger.

A Development Licence will be required from Natural England for any development works affecting an active badger sett, or to disturb badgers while individuals are occupying the sett. Depending on the nature of the works and the specifics of the sett, badgers could be disturbed by work near the sett even if there is no direct interference or damage to the sett itself. Natural England has issued guidelines on what constitutes a licensable activity. There is no provision in law for the capture of badgers for development purposes and therefore it is not possible to obtain a licence to translocate badgers from one area to another.

Bats

Bats are protected under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). This act protects individuals from:

- ☛ intentional or reckless disturbance (at any level);
- ☛ intentional or reckless obstruction of access to any place of shelter or protection; and
- ☛ selling, offering, or exposing for sale, possession or transporting for purpose of sale.

In addition, all species of bat are fully protected under The Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- ☛ deliberate killing, injuring, or capturing of Schedule 2 species (all bats);
- ☛ deliberate disturbance of bat species as to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- ☛ deliberate disturbance of bat species as to affect significantly the local distribution or abundance of the species;
- ☛ damage or destruction of a breeding site or resting place; and
- ☛ keeping, transporting, selling, exchanging, or offering for sale whether live or dead or of any part thereof.

⁷ A badger sett is defined in the legislation as "any structure or place which displays signs indicating current use by a badger". This includes seasonally used setts. Natural England (2009) have issued guidance on what is likely to constitute current use of a badger sett: www.naturalengland.org.uk/Images/WMLG17_tcm6-11815.pdf

⁸ For guidance on what constitutes disturbance and other licensing queries, see Natural England (2007) Badgers & Development: A Guide to Best Practice and Licensing. www.naturalengland.org.uk/Images/badgers-dev-guidance_tcm6-4057.pdf, Natural England (2009) Interpretation of 'Disturbance' in relation to badgers occupying a sett www.naturalengland.org.uk/Images/WMLG16_tcm6-11814.pdf, Scottish Natural Heritage (2002) Badgers & Development. www.snh.org.uk/publications/online/wildlife/badgersanddevelopment/default.asp and Countryside Council for Wales (undated) Badgers: A Guide for Developers. www.ccw.gov.uk.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake activities listed above. A licence is required to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and monitored.

Breeding Birds

Under the Wildlife & Countryside Act, 1981 (as amended), a wild bird is defined as any bird of a species that is resident in or is a visitor to the European Territory of any member state in a wild state. Game birds, however, are not included in this definition (except for limited parts of the Act). They are covered by the Games Acts, which fully protect them during the closed season.

Under the Wildlife & Countryside Act, 1981 (as amended), all birds, their nests and eggs are protected under Sections 1-8 of the Act and it is an offence, with certain exceptions, to:

- 🌱 intentionally (or recklessly in Scotland) kill, injure, or take any wild bird;
- 🌱 intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built;
- 🌱 intentionally take or destroy the egg of any wild bird;
- 🌱 have in one's possession or control any wild bird, dead or alive, or any part of a wild bird, which has been taken in contravention of the Act;
- 🌱 have in one's possession or control any egg or part of an egg which has been taken in contravention of the Act;
- 🌱 use traps or similar items to kill, injure or take wild birds;
- 🌱 have in one's possession or control any bird (dead or alive) unless registered, and in most cases ringed, in accordance with the Secretary of State's regulations; and
- 🌱 in Scotland only, intentionally or recklessly obstruct or prevent any wild bird from using its nest.

Certain rare species receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

- 🌱 intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young;
- 🌱 intentional or reckless disturbance of dependent young of such a bird;
- 🌱 in Scotland only, intentional or reckless disturbance whilst lekking; and
- 🌱 in Scotland only, intentional or reckless harassment.

The British Trust for Ornithology (BTO) has a list of birds that are Species of Conservation Concern. These birds are not legally protected but where they are found on site they should be given planning consideration. The criteria for birds listed as amber (medium conservation concern) include:

- 🌱 historical population decline during 1800-1995, but recovering: population has more than doubled over last 25 years;
- 🌱 moderate (25-49%) decline in UK breeding population over last 25 years;
- 🌱 moderate (25-49%) contraction of UK breeding range over last 25 years;
- 🌱 moderate (25-49%) decline in UK non-breeding population over last 25 years;
- 🌱 species with unfavourable conservation status in Europe (Species of conservation Concern);
- 🌱 five year mean of breeding pairs in the UK;
- 🌱 $\geq 50\%$ of UK breeding population in 10 or fewer sites;
- 🌱 $\geq 50\%$ of UK non-breeding population in 10 or fewer sites;
- 🌱 $\geq 20\%$ of European breeding population in UK; and
- 🌱 $\geq 20\%$ of NW European (wildfowl), East Atlantic Flyway (waders) or European (others) non-breeding populations in UK.

Hazel Dormice

The hazel dormouse (*Muscardinus avellanarius*) is fully protected under The Conservation of Habitats and Species Regulations 2017 through its inclusion on Schedule 2. Regulation 41 prohibits:

- 🌱 deliberate killing, injuring, or capturing;
- 🌱 deliberate disturbance as to impair its ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- 🌱 deliberate disturbance as to affect significantly the local distribution or abundance of the species;
- 🌱 damage or destruction of a breeding site or resting place; and
- 🌱 keeping, transporting, selling, exchanging, or offering for sale whether live or dead or of any part of this species.

The hazel dormouse is also currently protected under the Wildlife and Countryside Act 1981 (as amended) through its inclusion on Schedule 5. Under this Act, this species is additionally protected from:






- 🌱 intentional or reckless disturbance;
- 🌱 intentional or reckless obstruction of access to any place of shelter or protection; and
- 🌱 selling, offering or exposing for sale, possession or transporting for purpose of sale.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect dormouse breeding or resting places (N.B. this is usually taken to mean dormouse 'habitat') or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above. The licence will







allow derogation from the relevant legislation but will also to enable appropriate mitigation measures to be put in place and monitored.

Herpetofauna (Reptiles and Amphibians)




The following species receive full protection under the Conservation of Habitats and Species Regulations 2017 (as amended) through their inclusion on Schedule 2.

-  sand lizard (*Lacerta agilis*);
-  smooth snake (*Coronella austriaca*);
-  natterjack toad (*Epidalea calamita*);
-  great crested newt (*Triturus cristatus*); and
-  pool frog (*Pelophylax lessonae*).





Under this legislation, Regulation 41 prohibits:

-  deliberate killing, injuring or capturing of species listed on Schedule 2;
-  deliberate disturbance of any Schedule 2 species as to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
-  deliberate disturbance of any Schedule 2 species as to affect significantly the local distribution or abundance of the species;
-  deliberate taking or destroying of the eggs of a Schedule 2 species;
-  damage or destruction of a breeding site or resting place; and
-  keeping, transporting, selling, exchanging, or offering for sale whether live or dead or of any part of a species.

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

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

Other native species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). These species include:

-  adder (*Vipera berus*);
-  grass snake (*Natrix natrix*);
-  common lizard (*Zootoca vivipara*); and
-  slow-worm (*Anguis fragilis*).

Under this legislation, for these species it is prohibited under Section 9(1) & (5) to:

-  intentionally (or recklessly in Scotland) kill or injure these species; or

- sell, offer, or expose for sale, possess, or transport for purpose of sale these species, or any part thereof.

The following species are listed in respect to Section 9(5) of Schedule 5 of the Wildlife & Countryside Act 1981 (as amended) which only affords them protection against sale, offering or exposing for sale, possession, or transport for the purpose of sale:

- common frog (*Rana temporaria*);
- common toad (*Bufo bufo*);
- smooth newt (*Lissotriton vulgaris*); and
- palmate newt (*L. helveticus*).

Water Voles

The water vole (*Arvicola amphibius*) (=terrestris) is fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). This makes it an offence to:

- intentionally kill, injure, or take (capture) this species;
- intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection;
- intentionally or recklessly disturb water voles while they are occupying a structure or place used for shelter or protection; and
- sell, offer, or expose for sale, or have in his possession or transport for the purpose of sale, any live or dead water vole or part of this species.

Where development works are liable to affect habitats known to support water voles, Natural England must be consulted. All alternative design options must have been explored and communicated to Natural England in order to demonstrate that works have tried to avoid contravening the legislation e.g. the use of alternative sites, appropriate timing of works to avoid times of the year in which water voles are most vulnerable etc. Conservation licences for the capture and translocation of water voles may be issued by Natural England for the purpose of development activities if it can be shown that the activity has been properly planned and executed and thereby contributes to the conservation of the population.

Otters

Otters (*Lutra lutra*) are fully protected under The Conservation of Habitats and Species Regulations 2017 through their inclusion on Schedule 2. Regulation 41 prohibits:

- deliberate killing, injuring, or capturing of otters;
- deliberate disturbance as to impair their ability:
 - (i) to survive, breed, or reproduce, or to rear or nurture young; and
 - (ii) to hibernate or migrate.
- deliberate disturbance as to affect significantly the local distribution or abundance of the species;
- damage or destruction of a breeding site or resting place; and

- keeping, transporting, selling, exchanging, or offering for sale whether live or dead or of any part of this species.

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

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

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect breeding or resting places or for activities likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above. The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and monitored.

Wild Mammals

All wild mammals are protected against intentional acts of cruelty under the Wild Mammals (Protection) Act 1996. Under this legislation it is an offence to:

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

To avoid possible contravention of this legislation, due care and attention should be taken when carrying out works that have the potential to impact any wild mammal as described above.

Plants

Wild plants are protected under the Wildlife and Countryside Act 1981 (as amended) which makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Some rare plant species also receive full protection under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits:

- intentionally (or recklessly in Scotland) picking, uprooting, or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only); and
- selling, offering, or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or parts.

In addition to the legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2017. Regulation 45 makes it an offence to:

- deliberately pick, collect, or destroy a wild Schedule 5 species; and
- be in possession of, or control, transport, sell, or exchange any wild live or dead Schedule 5 species or anything derived from it.

A European Protected Species Mitigation (EPSM) Licence issued by Natural England will be required for works liable to affect species of plant listed under The Conservation of Habitat and Species Regulations 2017.

Invasive Plant Species

Certain plants are listed on Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) in respect to Section 14(2). Species include:

- 🌿 Japanese knotweed (*Reynoutria japonica*);
- 🌿 giant hogweed (*Heracleum mantegazzianum*);
- 🌿 Himalayan balsam (*Impatiens glandulifera*);
- 🌿 certain species of rhododendron (*Rhododendron* sp.); and
- 🌿 certain species of cotoneaster (*Cotoneaster* sp.).

Species listed are non-natives whose establishment or spread in the wild may be detrimental to native wildlife. Inclusion on Part II of Schedule 9 therefore makes it an offence to:

- 🌿 plant or otherwise cause these species to grow in the wild.

This legislation makes it is an offence to cause species listed to grow in the wild. Therefore, if they are present on site and development activities have the potential to cause the further spread of these species to new areas, it will be necessary to ensure appropriate measures are in place to prevent this.

Habitats

International Statutory Designations

- 🌿 Special Protection Areas (SPAs): Terrestrial SPAs are afforded protection by The Conservation (Natural Habitats, &c.) Regulations 1994 ((as amended by The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019) and offshore SPAs are afforded protection under The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended by EU Exit Regulations 2019). SPAs are designated under the EC Birds Directive (Council Directive 2009/147/EC on the Conservation of Wild Birds). SPAs are areas recognised as important habitat for rare and migratory birds within the European Union (rare birds as listed on Annex I of the Directive).
- 🌿 Special Areas of Conservation (SACs): These areas are designated under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora), designated for the habitats and (non-bird) species listed on Annexes I and II to the Directive under the same regulations as detailed for SPAs.

- 🌿 Ramsar sites: These areas are wetlands designated under the Convention on Wetlands of International Importance (1971). Wetlands can include areas of marsh, fen, water, or peatland and may be natural or artificial, permanent, or temporary. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CRoW) Act 2000.

National Statutory Designations

- 🌿 Sites of Special Scientific Interest (SSSIs): These sites are designated by the countryside agencies (for example Natural England) under the Wildlife & Countryside Act 1981 (as amended). Prior to 1981 these were designated under the National Parks and Access to the Countryside Act 1949. Improved mechanisms for the protection of SSSIs have also been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales).
- 🌿 National Nature Reserves: These sites are also designated by the countryside agencies under the Wildlife & Countryside Act 1981 (as amended).


Local Statutory Designations

- 🌿 1949 Local Nature Reserves (LNRs): These sites are designated by local authorities under the National Parks and Access to the Countryside Act 1949. These are sites recognised for their wildlife or geological interest at a local level and are managed for nature conservation.

Non-Statutory Designations

- 🌿 Local Wildlife Sites: Areas of local conservation interest may be designated by local authorities. The terminology for these sites varies depending on the county. They can be called Sites of Nature Conservation Importance (SNCI's), Sites of Importance for Nature Conservation (SINCs), County Wildlife Sites (CWS), Listed Wildlife Sites (LWS), Local Nature Conservation Sites (LNCS), and Sites of Biological Importance (SBIs). The designation criteria may vary between counties. Local Wildlife Sites are of material consideration when planning applications are being determined.
- 🌿 The Hedgerow Regulations 1997: These have been compiled to protect 'important' countryside hedgerows from damage or removal. A hedgerow is considered important if it (a) has existed for 30 years or more; and (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations. Under the Regulations, it is against the law to remove or destroy certain hedgerows without permission from the local planning authority. Hedgerows covered by these regulations include those on or adjacent to common land, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry, and land used for the keeping or breeding of horses, ponies, or donkeys.

National Planning Policy

-  The National Planning Policy Framework (NPPF) (2023) replaces the former NPPF 2021, 2019, 2018 and 2012, and the former PPS9 document and emphasises the need for sustainable development. The Framework specifies the need to protect and enhance valued landscapes, biodiversity and geodiversity, identify 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; wildlife corridors; and stepping that connect them. Plus partnerships for habitat management, enhancement, restoration, or creation. The Framework aims to promote the conservation, restoration, and enhancement of priority habitats, ecological networks, and the protection and recovery of priority species. In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; appropriate mitigation or compensation measures are in place where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; and planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

Local Planning Policy

Camden Local Plan (2017)

Policy A3 Biodiversity

- 🌿 The Council will protect and enhance sites of nature conservation and biodiversity. We will:
 - a. designate and protect nature conservation sites and safeguard protected and priority habitats and species;
 - b. grant permission for development unless it would directly or indirectly result in the loss or harm to a designated nature conservation site or adversely affect the status or population of priority habitats and species;
 - c. seek the protection of other features with nature conservation value, including gardens, wherever possible; Camden Local Plan | Protecting amenity 201
 - d. assess developments against their ability to realise benefits for biodiversity through the layout, design and materials used in the built structure and landscaping elements of a proposed development, proportionate to the scale of development proposed;
 - e. secure improvements to green corridors, particularly where a development scheme is adjacent to an existing corridor;
 - f. seek to improve opportunities to experience nature, in particular where such opportunities are lacking;
 - g. require the demolition and construction phase of development, including the movement of works vehicles, to be planned to avoid disturbance to habitats and species and ecologically sensitive areas, and the spread of invasive species;
 - h. secure management plans, where appropriate, to ensure that nature conservation objectives are met; and
 - i. work with The Royal Parks, The City of London Corporation, the London Wildlife Trust, friends of park groups and local nature conservation groups to protect and improve open spaces and nature conservation in Camden.

🌿 Trees and vegetation

The Council will protect, and seek to secure additional, trees and vegetation. We will:

- j. resist the loss of trees and vegetation of significant amenity, historic, cultural or ecological value including proposals which may threaten the continued wellbeing of such trees and vegetation;
- k. require trees and vegetation which are to be retained to be satisfactorily protected during the demolition and construction phase of development in line with BS5837:2012 'Trees in relation to Design, Demolition and Construction' and positively integrated as part of the site layout;

- l. expect replacement trees or vegetation to be provided where the loss of significant trees or vegetation or harm to the wellbeing of these trees and vegetation has been justified in the context of the proposed development;
- m. expect developments to incorporate additional trees and vegetation wherever possible.

London Local Plan (2021)

Policy G6 Biodiversity and access to nature

- A. Sites of Importance for Nature Conservation (SINCs) should be protected.
- B. Boroughs, in developing Development Plans, should:
 - 1) use up-to-date information about the natural environment and the relevant procedures to identify SINCs and ecological corridors to identify coherent ecological networks
 - 2) identify areas of deficiency in access to nature (i.e. areas that are more than 1km walking distance from an accessible Metropolitan or Borough SINC) and seek opportunities to address them
 - 3) support the protection and conservation of priority species and habitats that sit outside the SINC network, and promote opportunities for enhancing them using Biodiversity Action Plans
 - 4) seek opportunities to create other habitats, or features such as artificial nest sites, that are of particular relevance and benefit in an urban context 325
 - 5) ensure designated sites of European or national nature conservation importance are clearly identified and impacts assessed in accordance with legislative requirements.
- C. Where harm to a SINC is unavoidable, and where the benefits of the development proposal clearly outweigh the impacts on biodiversity, the following mitigation hierarchy should be applied to minimise development impacts:
 - 1) avoid damaging the significant ecological features of the site
 - 2) minimise the overall spatial impact and mitigate it by improving the quality or management of the rest of the site
 - 3) deliver off-site compensation of better biodiversity value.
- D. Development proposals should manage impacts on biodiversity and aim to secure net biodiversity gain. This should be informed by the best available ecological information and addressed from the start of the development process.
- E. Proposals which reduce deficiencies in access to nature should be considered positively

Appendix D

Plant Species List

Plant Species List

Scientific nomenclature follows Stace (2010) for vascular plant species and British Bryological Society (BBS) Special Volume No. 5 *English Names for British Bryophytes* for bryophyte species. Vascular plant common names follow the Botanical Society of the British Isles 2003 list, published on its web site, www.bsbi.org.uk. The plant species list was generated as part of a Phase 1 Habitat survey and does not constitute a full botanical survey.

Abundance was estimated using the DAFOR scale as follows:

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

Key to qualifiers: G = garden origin, P = planted, Y = young, S = seedling or sucker, T = tree, H = hedge, W = water, ? = identification uncertain.

Scientific Name	Common Name	Abundance	Qualifier
<i>Acer pseduoplatanus</i>	Sycamore	O	Y/T
<i>Agrostis stolonifera</i>	Creeping bent	R	G
<i>Buddleia davidii</i>	Buddleia	O	P
<i>Cordyalis lutea</i>	Yellow fumitory	O	P
<i>Hedera helix</i>	Ivy	O	P
<i>Rubus fruticosus</i>	Bramble	O	P
<i>Sambucus nigra</i>	Elder	R	T

Appendix E

Suggested Compensatory Planting

Suggested Compensatory Planting

This section provides a list of plants which are of proven value to wildlife. The list is not exhaustive and merely provides a guide for suggested planting for wildlife value. Planting should be tailored on a site by site basis. The list includes some native and ornamental species however the emphasis should always be on the use of predominantly native species.

N = Native, NN = Non-native.

This list includes species that may be harmful if handled or ingested. Schedule 9 (Part 2) of the Wildlife and Countryside Act, 1981 (as amended) includes a list of invasive plants, including aquatic species, that should always be avoided in planting schemes.

Large Shrubs

Hedge veronica/Hebe (*Veronica* spp.) NN

Hawthorn (*Crataegus monogyna*) N

Blackthorn (*Prunus spinosa*) N

Rose: dog rose (*Rosa canina*), field rose (*R. arvensis*), burnet rose (*R. pimpinellifolia*) N

California lilac (*Ceanothus* spp.): (*C. arborea*) NN

Wild privet (*Ligustrum vulgare*) N

Common holly (*Ilex aquifolium*) N

Barberry (*Berberis* spp.): (*B. darwinii*), (*B. thunbergii*), (*B. x stenophylla*) NN

Daisy Bush (*Olearia* spp.): (*O. x hastii*), (*O. macrodonta*), (*O. traversii*) NN

Firethorn (*Pyracantha coccinea*) NN

Hazel: (*Corylus avellana*) N, (*C. maxima*) NN

Viburnum (*Viburnum* spp.): wayfaring tree (*V. lantana*) N, guelder rose (*V. opulus*) N, laurustinus (*V. tinus*) NN. Note: *V. lantana* can become invasive in more open habitats.

Dogwood (*Cornus sanguinea*) N

Broom (*Cytisus scoparius*) N

Escallonia (*Escallonia macrantha*) NN

Hardy fuchsia (*Fuchsia magellanica*) NN

Buckthorn (*Rhamnus cathartica*) N

Spindle (*Euonymus europaeus*) N

Tutsan (*Hypericum androsaemum*) N

Yew (*Taxus baccata*) N

Trees

Cherry (*Prunus* spp.): wild cherry (*P. avium*), bird cherry (*P. padus*), domestic plum (*P. domestica*) N, or cherry plum (*P. cerasifera*) NN

Ash (*Fraxinus excelsior*) N

Apple (*Malus* spp.): edible apple (*M. domestica*), crab apple (*M. sylvestris*) N

Pear (*Pyrus* spp.): edible pear (*P. communis*) NN

Small-leaved lime (*Tilia cordata*) N

Silver birch (*Betula pendula*) N

Yew (*Taxus baccata*) N

Black poplar (*Populus nigra*) N

Foxglove tree (*Paulownia tomentosa*) NN

Beech (*Fagus sylvatica*) N

Climbers

Jasmine (*Jasminum* spp.): summer jasmine (*J. officinale*), winter jasmine (*J. nodiflorum*) NN

Ivy (*Hedera helix*) N

Climbing hydrangea (*Hydrangea anomala* ssp. *petiolaris*) NN

Honeysuckle (*Lonicera* spp.): (*L. periclymenum*) N

Clematis (*Clematis* spp.) NN

Hop (*Humulus lupulus*) N

Firethorn (*Pyracantha atalantioides*) NN

Bulbs

English bluebell (*Hyacinthoides non-scripta*) N

Squill species (*Scilla* spp.) N/NN

Snowdrop (*Galanthus nivalis*) N

Winter aconite (*Eranthis hyemalis*) E

Crocus species (*Crocus* spp.) NN

Wild Daffodil (*Narcissus pseudonarcissus*) N

Onion species (*Allium* spp.) N/NN. Note: *Allium triquetrum* (three cornered leek) and *Allium paradoxum* (few-flowered leek) are Schedule 9 invasive plant species.

Wood anemone (*Anemone nemorosa*) N



Lesser celandine (*Ficaria verna*) N


Appendix F

Bird and Bat Box Designs



Bird and Bat Box Designs

Bird Boxes

Example	Type	Dimension D x W x H (cm)	Target Species	Location
	Schwegler Nest Box 1B Hole-fronted 26mm entrance hole	16 x 16 x 23	Multi-purpose, including: blue-, marsh-, coal-, and crested tit, and possibly wren. All other species are prevented from using the nest box due to the smaller entrance hole.	Suitable walls or semi-mature/mature trees and shrubs; attached to a tree trunk or hung from branches. Ideal points include discrete areas away from predators, such as against walls, plant, and metal supports.
	Schwegler Bird House 32mm entrance hole	15 x 21 x 33	Multi-purpose, including: great-, blue-, marsh-, and coal tit, redstart, nuthatch, pied flycatcher, and sparrows.	Fixed to a semi-mature/mature tree trunk, wall or fence using the hanging bracket on the back. Between 1.5 m and 3 m high, and should be sited higher if area has a particularly high cat population.

Example	Type	Dimension D x W x H (cm)	Target Species	Location
	Schwegler Sparrow Terrace 1SP	20 x 43 x 24.5	House sparrow. It may also occasionally attract tits, redstarts, and spotted flycatchers.	<p>In an elevated position such as on post/platform within dense shrub/tree planting or on top of lighting columns. Alternatively, they could be attached to the side of a building.</p> <p>The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for all types of houses in built-up areas, and on industrial and agricultural buildings such as barns, sheds, and factories. Due to its weight (15kg), it is not suitable for fences or garden sheds. Ideally place the terrace two metres or more above the ground. Either install on the surface of the wall using the plugs and screws provided or install directly into the wall. Cleaning is not necessary. The front panel can be removed by turning the screw hook.</p>

Bat Boxes

Example	Type	Dimension D x W x H (cm)	Target Species	Location
	2F Schwegler Bat Box (General Purpose) with or without Double Front Panel	16 x 16 x 33	<p>Without panel: Particularly successful with brown long-eared bat. Also used by noctule.</p> <p>With panel: Ideal for crevice-dwelling species: pipistrelles, Myotis species (particularly Daubenton's), Leisler's, and serotine.</p>	<p>On trees or buildings and at a height of 3 to 6m.</p> <p>In open sunny positions and in groups of 3 to 5 facing different directions.</p> <p>Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.</p>
	Chavenage Bat Box	10 x 18 x 38	Small crevice-dwelling bats: e.g. pipistrelles.	<p>On trees in gardens or woodland and also on house walls. 2.5 - 5m high on a building, mature tree, or vegetation line (trees/tall hedge) or on a feeding/flight route in partial daytime sun.</p> <p>Please note that once bats have inhabited a roost site they may only be disturbed by licensed bat workers.</p>



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