The Ecology Consultancy

Middlesex Hospital Annex / Preliminary Ecological Appraisal and Preliminary Roost Assessment / **Llewelyn Davies**

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Middlesex Hospital Annex

Preliminary Ecological Appraisal and Preliminary Roost Assessment

Report for Llewelyn Davies

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Contents

Summary of key issues		2
1	Introduction	3
2	Methodology	6
3	Results	13
4	Potential Impacts and Recommendations	22
References		26
Appendix 1: Habitat and Preliminary Roost Assessment Map		27
Appendix 2: Photographs		29
Appendix 3: Plant Species List		34
Appendix 4: Target Notes		36
Appendix 5: Legislation and Planning Policy		38

Summary of key issues

The Ecology Consultancy was commissioned to carry out a Preliminary Ecological Appraisal (PEA), and Preliminary Roost Assessment (PRA) comprising a Phase 1 habitat survey, protected species assessment, internal and external bat roost potential assessment of buildings and ecological evaluation of land at Middlesex Hospital Annex, London Borough of Camden. The main findings of the PEA and PRA are as follows:

- The site comprised a series of five former hospital buildings, introduced shrub and scattered scrub. Semi mature street trees were present outside the boundary to the south west of the site. The habitats value to wildlife is only to the immediate vicinity of the site.
- The site is not subject to any statutory or non-statutory nature conservation designations. There are no statutory sites within 2km; the nearest non- statutory designated site is Gordon Square Site of Local Importance to Nature Conservation (SLINC) 570m north-east from the site.
- No Habitats of Principal Importance were present within the site and those habitats present were of little value to wildlife.
- **Bats** – the building inspections assessed the site as having a low potential to support roosting bats. Additional emergence/re-entry survey work is recommend on the four buildings / building sections with low potential to support roosting bats.
- **Breeding birds** – Breeding feral pigeons were confirmed on site. Buildings, shrubs and trees on site also have potential to support other widespread breeding birds such as blackbird, some of which will be impacted by the development proposals. In order to comply with legislation, removal of these habitats should be conducted outside the nesting bird season. If this is not possible, a nesting bird check must be undertaken, detailed in Section 4.
- Recommendations to enhance the biodiversity value of the site in accordance with national and local planning policies comprise the inclusion of wildlife planting, the provision of bird nesting opportunities and green walls and green roofs.

1 Introduction

BACKGROUND TO COMMISSION

1.1 The Ecology Consultancy was commissioned by Temple Group on behalf of Llewelyn Davies on 2 August 2016, to carry out a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) of land at Middlesex Annex Hospital, London Borough of Camden. The appraisal considers land within the planning application site boundary (hereon referred to as 'the site') as indicated on the plan provided by the client (Llewelyn Davies).

SCOPE OF THE REPORT

1.2 The aim of this appraisal is to provide baseline ecological information about the site. This will be used to identify any potential ecological constraints associated with the proposed development and/or to identify the need for additional survey work to further evaluate any impact that may be risk contravention of legislation or policy relating to protected species and nature conservation. Where necessary, avoidance, mitigation/compensation and/or enhancement measures have been recommended to ensure compliance.

1.3 This appraisal is based on the following information sources:

- a desk study of the site and land within a 1km surrounding radius;
- a Phase 1 habitat survey (JNCC, 2010) of the site to identify and map the habitats present;
- a protected species assessment of the site to identify features with potential to support legally protected species;
- an internal and external assessment of all buildings for potential to support roosting bats; and
- an evaluation of the site's importance for nature conservation.

1.4 This appraisal has been prepared with reference to best practice guidance published by the Chartered Institute for Ecology and Environmental Management (CIEEM, 2013) and as detailed in British Standard 42020:2013 *Biodiversity - Code of Practice for Biodiversity and Development* (BSI, 2013).

1.5 The survey, assessment and report were conducted and written by George Siskos BSc (Hons) MCIEEM, an Ecologist with over two years' experience who is competent in carrying out Phase 1 habitat surveys and protected species assessments.

SITE CONTEXT AND STATUS

1.6 The proposed development site is 0.31 hectares (ha) in size and is centred on Ordnance Survey National Grid reference TQ 2981 2782. The site is located on the south-western boundary of the London Borough of Camden and is not subject to any nature conservation designations. It is bordered by Cleveland Street to the west and by other commercial properties to the north, east and south. The wider surroundings are dominated by commercial properties in all directions

DEVELOPMENT PROPOSALS

1.7 The development proposals for the site are based on current plans provided by the client Llewellyn Davies. The proposed development comprises three main elements.

1.8 Firstly the part-demolition of the existing hospital annex building, with the listed part of the structure (the former Strand Union Workhouse fronting onto Cleveland Street) being retained and refurbished as mix of high quality market and affordable residential units.

1.9 Secondly, the existing buildings to the north and south of the listed Workhouse, which also front onto Cleveland Street are to be retained and refurbished to provide a mix of market and affordable housing units. All other existing buildings on site will be demolished.

1.10 Thirdly, to the rear of the retained Workhouse a new 3-8 storey development is proposed; with its footprint enabling the reformation of the historic Bedford Passage route through the southern part of the site. The new build element comprises of a mix uses including residential (Use Class C3) of which all units proposed will be affordable and B1 business space.

1.11 In addition to incorporating the Bedford Passage the proposed development will provide further public open space, using the space defined by the new build element to the rear of the retained Workhouse building. Private amenity space for the market housing and shared amenity space for the affordable housing is also incorporated into the scheme.

RELEVANT LEGISLATION AND PLANNING POLICY

1.12 The following key pieces of nature conservation legislation are relevant to this appraisal. A more detailed description of legislation is provided in Appendix 5:

- The Conservation of Habitats and Species Regulations 2010 (as amended) (commonly referred to as the Habitats Regulations);
- Wildlife and Countryside Act 1981 (as amended);
- Natural Environment and Rural Communities Act 2006;
- Protection of Badgers Act 1992; and/
- Wild Mammals (Protection) Act 1996.

1.13 The National Planning Policy Framework (Department of Communities and Local Government, 2012) requires local authorities to avoid and minimise impacts on biodiversity and, where possible, to provide net gains in biodiversity when taking planning decisions.

1.14 Other planning policies at the local level which are of relevance to this development include the of Camden's Local Development Framework (LDF), Further information is provided in Appendix 5.

2 Methodology

DESK STUDY

2.1 The following data sources were reviewed to provide information on the location of statutory designated sites[1], non-statutory designated sites[2], legally protected species[3], Species and Habitats of Principal Importance[4] and other notable species[5] and notable habitats[6] that have been recorded within a 1km radius of the site:

- Greenspace Information for Greater London (GiGL), the local Biological Records Centre, principally for species records and information on non-statutory sites;
- MAGIC (http://www.magic.gov.uk/) - the Government's on-line mapping service for geographical information about the natural environment; and
- Ordnance Survey mapping and publically available aerial photography.

HABITAT SURVEY

2.2 A habitat survey of the site was carried out on the 11 August 2016 in warm, clear, dry conditions. It covered the entire site including boundary features. Habitats were described and mapped following standard Phase 1 habitat survey methodology (JNCC, 2010). Habitats were marked on a paper base map and subsequently digitised using ESRI ArcGIS software. Habitats were also assessed against descriptions of Habitat of Principal Importance as set-out by the JNCC (BRIG, 2008)[7].

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1 **Statutory designations** include Special Areas of Conservation (SAC), Special Protection Areas (SPA), Ramsar sites, National Nature Reserves (NNR), Sites of Special Scientific Interest (SSSI) and Local Nature Reserves (LNR).

2 **Non-statutory sites** are designated by local authorities (e.g. Sites of Importance for Nature Conservation or Local Wildlife Sites).

3 **Legally protected species** include those listed in Schedules 1, 5 or 8 of the Wildlife and Countryside Act 1981; Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended); or in the Protection of Badgers Act 1992 (as amended).

4 **Species of Principal Importance** are those listed on Section 41 of the Natural Environment and Rural Communities Act, 2006.

5 **Notable species** include Species of Principal Importance under the Natural Environment and Rural Communities Act 2006; Local Biodiversity Action Plan (LBAP) species; Birds of Conservation Concern (Eaton *et al.*, 2015); and/or Red Data Book/nationally notable species (JNCC, undated).

6 **Notable habitats** include Habitats of Principal Importance under the Natural Environment and Rural Communities Act, 2006; those included in an LBAP; Ancient Woodland Inventory sites; and Important Hedgerows as defined by the Hedgerow Regulations 1997.

7 Data required to confirm that certain habitats (including rivers and ponds) meet criteria for Habitats of Principle Importance is beyond that obtained during a Phase 1 habitat survey. In these cases the potential for such habitats to meet relevant criteria is noted but further surveys to confirm this assessment may be recommended

2.3 Records for dominant and notable plants are provided, as are incidental records of birds and other fauna noted during the course of the habitat survey.

2.4 Common names are used where widely accepted for amphibians, birds, fish, mammals, reptiles and vascular plants. Scientific names are provided for other groups but at first mention only if there is also an accepted common name.

2.5 The site was also surveyed for the presence of invasive plant species as defined by Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). However, detailed mapping of such species is beyond the scope of this commission and the locations on habitat plan are indicative only.

2.6 Target notes are used to provide information on specific features of ecological interest (e.g. a badger sett) or habitat features that were too small to be mapped.

PROTECTED AND NOTABLE SPECIES ASSESSMENT

2.7 The suitability of the site for legally protected species was assessed on the basis of relevant desk study records[8] combined with field observations from the habitat survey. The likely value of habitat for protected species occurrence was ranked on a scale from 'negligible' to 'present' as described in Table 2.1.

2.8 The assessment of habitat suitability for protected or notable species was based on professional judgement drawing on experience of carrying out surveys of a large number of urban and rural sites and best practice survey guidance on identifying field signs which includes that for the following species: badger (e.g. Roper, 2010); bats (Collins (ed.), 2016); and great crested newt (Langton *et al.,* 2001);.

[8] Primarily dependent on the age of the records, distance from the site and types of habitats at the site.

Table 2.1: Protected species assessment categories

Category	Description
Present	Presence confirmed from the current survey or by recent, confirmed records.
High	Habitat present provides all of the known key requirements for a given species/species group. Local records are provided by desk study. The site is within or close to a national or regional stronghold for a particular species. Good quality surrounding habitat and good connectivity.
Moderate	Habitat present provides all of the known key requirements for a given species/species group. Several desk study records and/or site within national distribution and with suitable surrounding habitat. Factors limiting the likelihood of occurrence may include small habitat area, barriers to movement and disturbance.
Low	Habitat present is of relatively poor quality for a given species/species group. Few or no desk study records. However, presence cannot be discounted on the basis of national distribution, nature of surrounding habitats or habitat fragmentation.
Negligible	Habitat is either absent or of very poor quality for a particular species or species group. There were no desk study records. Surrounding habitat unlikely to support wider populations of a species/species group. The site may also be outside or peripheral to known national range for a species.

2.9 The findings of this assessment establish the need for protected species surveys that are required to achieve compliance with relevant legislation. Surveys are commonly required for widespread species such as bats, great crested newt, reptiles and badger; but may be necessary for other species if suitable habitat is present.

2.10 Surveys may be required where a site is judged to be of low suitability for a particular species/species group. However, in some cases there may be opportunities to comply with legislation, without further survey, through precautionary measures prior to and during construction.

PRELIMINARY ROOST ASSESSMENT

2.11 The survey was conducted by bat ecologists George Siskos BSc ACIEEM, who has 2 years' commercial bat survey experience.

2.12 The PRA covered five buildings (see Figure 1, Appendix 1).

2.13 The aim of the survey methodologies outlined below is to establish the presence/likely absence of bat roosts within the buildings in the site boundary. If presence is established the secondary aim is to obtain sufficient information to characterise the type of roost according to criteria set out in the current guidelines (Collins (ed.), 2016). The

gathered information is then used to inform an assessment of the potential impacts of the development proposals and to devise an appropriate and proportionate mitigation strategy.

Buildings

2.14 The preliminary roost assessments were carried out on 11 August 2016 in weather conditions of 17°C, light wind, clear skies and no rain.

2.15 The survey comprised an external inspection of each building, involving a detailed search of all accessible architectural features for bat droppings, urine staining, scratch marks, staining around suitable crevices and feeding remains. Window panes and other external surfaces were visually checked for droppings or other secondary evidence. A high powered torch was used to illuminate recesses and crevices at height and these were inspected using close focusing binoculars. This included external features, such as soffit boxes, roof tiles, hanging tiles, ridge areas and window casements. Any features that could potentially provide access into internal areas such as roof voids and cavity walls were noted.

2.16 During the internal inspection the surveyor worked through the roof voids of the buildings in logical progression searching each adjoining void in turn. Within the roof voids all surfaces including floor areas were checked for discarded feeding remains and bat droppings. The beam from a high powered torch was shone along the length of each individual rafter, where appropriate to the roof type, looking for bats, staining and droppings. The roofing material was also inspected for areas of overlapping materials, holes and potential access points into the ridge area. Any open water tanks were inspected for the presence of bat corpses.

2.17 The survey methodology followed best practice guidelines (Mitchell-Jones & McLeish, 2004; Collins (ed.), 2016). Equipment used and at hand during the building inspection included an extendable ladder, close-focusing binoculars, endoscope (See Snake Rigid Micro), hand held LED torch and a high powered torch.

2.18 Due to the complexity of the aspects of some of the buildings on site building 2 and building 3 were split into different sections. Building 2 was split into two sections; B2.1 and B2.2 and building 3 was split into four sections; B3.1, B3.2, B3.3, and B3.4.

Assessment criteria - buildings

2.19 The potential for the buildings to support roosting bats was assessed using the findings of the survey. The following criteria were used to determine the level of potential of the buildings for roosting bats:

- **Negligible** – While presence cannot be absolutely discounted there were no significant visible features that could be used by bats for roosting.
- **Low** – Small number of potential roosting features such as could be utilised by individual opportunistic roosting bats. Site situated within isolated habitat that could be used by foraging bats but which is not connected by prominent linear features such as woodland edge, hedgerows and tree lines.
- **Moderate** – Several potential roosting features in the buildings or other structures. There is surrounding habitat such as woodland, scattered trees, hedgerows suitable to support foraging and roosting bats. The site is connected with the wider landscape by linear features such as woodland edge, hedgerows and tree lines that could be used by commuting bats.
- **High** – Buildings or other structures, such as mines, caves, tunnels, ice houses and cellars, with numerous features of potential significance for roosting bats. Surrounding landscape has high value habitat for roosting, foraging and commuting that is contiguous with on-site habitats. The site is connected with the wider landscape by strong linear features and may be close to known roosts or other potentially valuable habitat resources.
- **Confirmed roost** – Evidence indicates a building or other structure is used by bats, for example:
  - bats seen roosting or observed flying from a roost or freely in the habitat;
  - droppings, carcasses, feeding remains;
  - bats heard 'chattering' inside on a warm day or at dusk.

2.20 Where possible, the number of bats likely to be using the roost site, and the species of bat(s) would be determined from the evidence available.

SITE EVALUATION

2.21 The site's ecological value has been evaluated broadly following guidance issued by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2016) which ranks the nature conservation value of a site according to a geographic scale of

reference: international, national, regional, county/metropolitan, district/borough, local/parish or of value at the site scale. In evaluating the nature conservation value of the site the following factors were considered: nature conservation designations; species/habitat rarity; naturalness; fragility and connectivity to other habitats;

2.22 An initial assessment of the site's contribution to green infrastructure and ecosystem services, as recommended by *BS 42020:2013 Biodiversity. Code of practice for planning and development,* is also included.

DATA VALIDITY AND LIMITATIONS

2.23 Every effort has been made to provide a comprehensive description of the site, however, the following limitations apply to this assessment.

- The protected species assessment provides a preliminary view of the likelihood of protected species occurring on the site. It should not be taken as providing a full and definitive survey of any protected species group. Additional surveys may be recommended if on the basis of the preliminary assessment or during subsequent surveys it is considered reasonably likely that protected species may be present.
- The ecological evaluation is preliminary and may change subject to the findings of further ecological surveys (should these be required).
- Even where data for a particular species group is provided in the desk study, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest, the area may simply be under-recorded.
- Where only four figure grid references are provided for protected species by third parties, the precise location of species records can be difficult to determine and they could potentially be present anywhere within the given 1km x 1km square. Equally six figure grid references may be accurate to the nearest 100m only.
- The Phase 1 habitat survey does not constitute a full botanical survey or provide accurate mapping of invasive plant species.
- It was not possible to view all roof levels and all elevations of each building due to access issues.
- Bats are highly mobile animals and can move roost sites both within and between years. Where surveys are not spread throughout the bat active season it is possible that they could miss roosts that are occupied earlier or later in the year. However, where undisturbed, secondary evidence of bats inside a building is likely to be detectable throughout the year. The detection of small numbers of crevice dwelling

species may remain problematic in some cases, such as where droppings accumulate within an inaccessible void.

- Ecological survey data is typically valid for two years unless otherwise specified.

2.24 Despite these limitations, it is considered that this report accurately reflects the habitats present, their biodiversity values and the potential of the site to support protected and notable species.

3 Results

DESIGNATED SITES

Statutory designated nature conservation sites

3.1 The proposed development site is not subject to any statutory nature conservation designations. There are no European or national statutory sites within a 2km radius of the site.

Non-statutory designated nature conservation sites

3.2 The proposed development site is not subject to any non-statutory nature conservation designations. Eight non-statutory sites designated as Sites of Nature Conservation Importance (SNCI) are present within a 2km radius (see Table 3.1).

Table 3.1: Non-Statutory Designated Sites

Site Name	Distance from site and orientation	Reason for designation
Sites of Metropolitan Importance for Nature Conservation		
Regent's Park	760m north-west	A large park with mature trees and ornamental lake. The site is important for breeding bird colonies including a large heronry and pochard colony.
Site of Borough Grade II Importance for Nature Conservation		
Park Square Gardens	700m north-west	A private square with mature trees, shrubs including native dogwood and elder as well as amenity grassland.
Portman Square and Manchester Square	1.09km south-west	Two private squares with mature London plane trees as well as amenity grassland, flower beds, planted shrubbery, and semi-improved neutral grassland.
Site of Local Importance for Nature Conservation		
Gordon Square	570m north-east	A small square with mature trees, introduced shrub which contains hazel and amenity grassland.

Table 3.1: Non-Statutory Designated Sites

Site Name	Distance from site and orientation	Reason for designation
Russell Square	720m east	One of London's largest squares with mature trees, amenity grassland and a recently laid hornbeam hedge.
Phoenix Garden	960m south-east	A community garden which includes a pond, mature trees, introduced shrub, flower beds and amenity grassland.
Paddington Street Gardens	1.05km west	A formal park and a smaller, secluded garden, with which supports a range of common birds. Habitats include amenity grassland, bare ground, introduced shrub, and scattered trees
St James's Garden	1.44km south	A former graveyard now a public garden which includes mature trees, introduced shrub and amenity grassland, which contains common stork's-bill which is rare in inner London.

PHASE 1 HABITAT SURVEY

Overview

3.3 The site consists of five buildings which used to form part of Middlesex Hospital Annex, surrounded by areas of hardstanding, scrub, and introduced shrub.

3.4 Phase 1 habitats types are mapped in Figure 1, areas are given in Table 3.2. A description of dominant and notable species and the composition of each habitat is provided below

Table 3.2: Phase 1 Habitat Areas

Phase 1 Habitat	Extent	%
Buildings	2116.43m^2	68.21
Hardstanding	844.73m^2	27.22
Scrub	133.36 m^2	4.30
Introduced shrubs	8.24 m^2	0.27

Habitat description

Buildings and hardstanding

3.5 Five buildings were present in the site, as described below.

3.6 Building 1 was unoccupied at the time of the survey however it used to serve as a site office. It was a single storey rectangular brick structure located in the north eastern corner of the site. It had a pitched roof clad in tiles with two sky lights in the centre. (See Appendix 2, Photograph 1). There were no enclosed loft spaces within the structure.

3.7 Building 2 was unoccupied and was located in the southern corner of the site. It could be split into two distinct parts; a pitched two storey section with slate tiles labelled as B2.1 to the west and a flat roofed terrace single storey section to the east labelled as B2.2 (See Appendix 2, Photograph 2).

3.8 Building 3 was previously the main building of the hospital. It was a complex building with several extensions of various heights. Section B3.1 was located in the centre of the site. It was a single storey flat roof section with a pitched sky light running the length of the centre of the structure. Internally B3.1 lacked any roof voids and the ceiling was clad in tight timber sarking. (See Appendix 2, Photograph 3)

3.9 Section B3.2 was a three storey rectangular shaped brick building with pitched roof section of the main building located in the north-west of the site. The roof was a constructed from asbestos sheeting with several sky lights running through the centre of the roof.

3.10 Section B3.3 was a three storey brick rectangular shaped extension with a similar construction to B3.2. The roof was constructed from slate tiles.

3.11 Section B3.4 was the four storey original section of B3 and was constructed from brick. The roof had both flat roof with lead sheeting on two dormer windows, and pitched areas with slate tiles.

3.12 Building 4 was located in the north-west of the site. At the time of the survey it was being used as offices. It was a three storey brick building with pitched slate roof. Gaps were present in the mortar, ridge tiles where missing / lifted, lead flashing was lifted and a missing roofing tile.

3.13 Building 5 was a single storey rectangular shaped brick building and was adjoined to B4. It had a flat roof constructed from roofing felt. The building was in relatively good condition apart from gaps in the brickwork on a chimney.

3.14 The site included a number of hardstanding areas around the building. These areas of hardstanding comprised asphalt, brick and slab paving and were largely devoid of vegetation. Scattered ephemeral vegetation was growing through some of the hard standing; species included clover and herb-robert.

Introduced shrub

3.15 A single area of introduced shrubs was present in a raised planter to the west of B3.4, which comprised of a single stand of Leyland cypress.

Scattered trees

3.16 A single young ash tree was present between B3.2 and B3.1 (See Appendix 2, Photograph 4) and two field maple trees lined the pavement on Cleveland Street within 2m of the western boundary of the site.

Scrub

3.17 A number of areas of scrub were found around B3 and B1. These were dominated by butterfly bush.

PROTECTED AND INVASIVE SPECIES ASSESSMENT

3.18 The potential for the site to support protected species has been assessed using criteria provided in Table 3.3, based on the results of the desk study and observations made during the site survey of habitats at the site. Other legally protected species are not referred to as it is it is considered that the site does not contain habitats that would be suitable to support them. The following species/species groups are potentially present at the site:

- bats; and
- breeding birds;

3.19 The likelihood of bats being present within the site is discussed in full as part of the Preliminary Roost Assessment below. The likelihood of other protected faunal species and invasive species within the site are evaluated in Table 3.3 below, based on the

results of the desk study, observations made during the site survey, an assessment of the suitability of on-site and adjoining habitat.

Table 3.3: Protected and Invasive Species Assessment

Habitat/ species	Status [9, 10]	Likelihood of occurrence
Bats	HR WCA S5	**LOW**: There are 25 desk study records of bats within 2km of the site including unidentified pipistrelle species, unidentified nyctalus species, common pipistrelle, soprano pipistrelle and Nathusius' pipistrelle bats. These records are few in number and located at least 0.70km of the site. **As buildings on site have been given low potential to support roosting bats they are considered further is section 3 of this report.**
Breeding birds	WCA S5	**CONFIRMED:** The data search provided records of 26 bird species. Records for London BAP species that could potentially utilise the site were as follows: one record for house sparrow. Habitats at the site are unlikely to support the majority of species recorded in the data search with the exception of house sparrows which occur in suburban areas and could potentially the scrub areas. The buildings and scrub areas on site provided suitable nesting habitat for common breeding bird species. Several pigeons were seen roosting in the basement of B4 (see Target Note 2). **It is likely that breeding birds will occur at the site in low numbers and as such they are considered further in Section 4 of this report.**
Invasive species	WCA S9	**NEGLIGIBLE:** No invasive species were recorded during the walk over survey. **As there is a negligible likelihood of presence, invasive species listed on Schedule 9 are not considered further in this report.**

[9] The following abbreviations have been used to signify the legislation regarding different species: HR = Conservation of Habitats and Species Regulations 2010 (as amended); WCA S1 = Schedule 1 of the Wildlife and Countryside Act 1981 (as amended); WCA S5 = Schedule 5 of the Wildlife and Countryside Act 1981 (as amended); WCA S9 = Schedule 9 of the Wildlife and Countryside Act 1981 (as amended); PBA = Protection of Badgers Act, 1992.

[10] The following abbreviations have been used to signify the policy of conservation assessments applying to notable species: SPI = Species of Principal Importance under the NERC Act 2006; LBAP = Local Biodiversity Action Plan species; BoCC = Birds of Conservation Concern - amber list / red list (Eaton *et al.*, 2015); and/or RD/NN = red data book/nationally notable species (JNCC, undated).

PRELININARY ROOST ASSESSMENT

Overview

3.20 Opportunities for roosting bats were identified in B1, B2.1, B3,2, B3.3 B3.4 and B4.

Building Inspection

3.21 The building inspection covered five buildings, as described in the Extended Phase 1 Habitat Survey section above. An evaluation of the buildings' potential to support roosting bats based on the results of the inspection work is provided below. Potential roost features within the buildings are shown at Figure 1, Appendix 1.

3.22 *B1*: No evidence of roosting bats was recorded during the internal or external inspection work. The building was pitched with no internal voids. Potential access/egress points identified included gaps in venting and lifted lead flashing. Accordingly B1 is considered to have **low potential** to support roosting bats.

3.23 *B2*. No evidence of roosting bats were recorded during the internal or external inspection work. The B2.1 section was pitched and B2.2 was flat roofed. Potential access egress points including gaps in mortar where identified on B2.1 but not B2.2; therefore B2.1 has been assessed as having **low potential** to support roosting bats.

3.24 *B3*. No evidence of roosting bats were recorded during the internal or external inspection of any of the sections of the building.

3.25 Section B3.1 was a flat roofed section of the building. No access/egress points were identified by the external inspection. Accordingly, B3.1 is considered to have **negligible potential** to support roosting bats.

3.26 Section B3.2 was a pitched roof section of the building. Access/egress points were identified by external inspection and included lifted/missing ridge tiles and lifted lead flashing (See Appendix 2, Photograph 8). B3.3 was a pitched section of the build, access/egress points were identified by the external inspection and included gaps in vents, lifted lead flashing, and lifted/missing ridge tiles. B3.4 was both flat and pitched. No access/egress point were identified by the external inspection, however it was not possible to view the south western roof level of the site and therefore a precautionary approach was taken with the assessment. Accordingly sections B3.2, B3.3 and B3.4 were all assessed as having **low potential** to support roosting bats.

3.27 *B4:* No evidence of roosting bats were recorded during the internal or external inspection work. The building was pitched and contained a roof void. Potential access/egress points identified included lifted / missing ridge tile, lifted lead flashing, gap in mortar and missing tile. Accordingly B4 has been assessed as having **low potential** to support roosting bats.

3.28 *B5* was a flat roofed building. No evidence of roosting bats were recorded during the internal and external inspection. The only features assessed for their suitability to support roosting bats were gaps in bricks were recorded on a chimney. These were however ruled to be superficial. Accordingly B5 has been assessed as having **negligible potential** to support roosting bats.

NATURE CONSERVATION EVALUATION

3.29 The proposed development site is not subject to any nature conservation designations. It contains small areas of common and widespread habitats none of which are Habitats of Principal Importance or London/Camden BAP habitats. It is situated within a densely urban area surrounded by residential / commercial property and roads and is distant from any sites or habitats of nature conservation importance. Overall it is considered to be of value in the immediate vicinity of the site only.

3.30 The habitats on site were suitable for breeding birds and roosting bats only. No other protected or notable species are considered likely to use the site.

3.31 The habitats at the site and populations of the above species are likely to be of value within the immediate vicinity of the site only. It is unlikely that the site would support rare species, or diverse assemblages or large populations of any noteworthy species.

3.32 The buildings on site had the potential to support roosting bats. However, it is not possible to confirm the value of bat populations that may be present at the site until further surveys have been undertaken. Recommendations for further survey are provided in Section 4.

4 Potential Impacts and Recommendations

4.1 This section summarises the potential impacts on habitats and notable species that may be present at this site. The impact assessment is preliminary and further detailed assessment and surveys will be required to assess impacts and design suitable mitigation, where appropriate.

4.2 The following key ecological issues have been identified:

- habitat suitable for roosting bats is present – further survey will be required to establish their presence/likely absence in buildings that are to be affected by works;
- habitat suitable for breeding birds is present – measures must be taken to avoid killing birds or destroying their nests;
- a range of measures should be undertaken to satisfy the requirement for ecological enhancement included in planning policy.

CONSTRAINTS AND MITIGATION/COMPENSATION

Designated Nature Conservation Sites

4.3 No impacts are envisaged on statutory or non-statutory designated sites due to the small scale of the proposed development and distance of the site from any designated site. Therefore there are no constraints to the proposed development in this regard.

Habitats

4.4 All buildings on site bar sections B2.1, B3.4 and B4, hardstanding, and scrub will be removed for the construction of the new building. No particular constraints were identified in relation to the intrinsic value of the habitats present; however, best environmental practice measures should be implemented to protect retained street trees, adjacent to the site.

Bats

4.5 All British species of bat are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended). Under this legislation it is an offence to deliberately capture, kill, disturb and damage or destroy a bat roost. Soprano pipistrelle are also Species of Principal Importance.

4.6 B1, B2.1, B3.2, B3.3, B3.4 and B4 were all assessed as having low potential to support roosting bats. It is recommend that further bats surveys are conducted as described in Table 4.1, below.

4.7 It is recommended that measures are implemented to avoid night-time lighting of features with potential for roosting bats, as well as areas that could provide flight lines and foraging habitats for bats. Further advice on the locations and appropriate methods for controlling light emissions should be sought following further survey work.

Breeding birds

4.8 All breeding birds and their nests are protected under the Wildlife and Countryside Act 1981 (as amended).

4.9 Where the proposed works require the removal of scrub and trees with potential to support breeding birds, this must be carried out September to February inclusive, to avoid any potential offences relating to breeding birds during their main bird breeding season (Newton *et al.*, 2011).

4.10 If site clearance during the breeding season is unavoidable then potential nesting habitat must be inspected shortly before work commences to identify active birds' nests. Should they be present, the nest and a suitable buffer of habitat around it must be retained until the young have left the nest.

4.11 Feral pigeons were confirmed to be nesting in the basement of B4.

4.12 If any of the areas where feral pigeons were recorded are likely to be impacted, then a qualified pest control specialist should be contacted for further advice. Please note that if pigeons are killed as a method of control without all non-lethal options being tried and found to fail, the action is illegal as stated in subsection 27 of the Wildlife and Countryside Act 1981.

Other protected species

4.13 Works must stop immediately and advice sought from a suitably qualified ecologist in the unlikely event that any protected species are found during site clearance or construction.

FURTHER SURVEY REQUIREMENTS

4.14 Table 4.1 lists further survey requirements as recommended in the constraints section.

Table 4.1: Further survey requirements

Species/ Habitat	Survey Requirement	Number of surveys and seasonal considerations
Bats	To survey B1, B2.1, B3.2, B3.3, B3.4 and B4	To carry out at least one emergence / re-entry survey during the bat survey season (May – September). At least four surveyors required to cover all potential roost features

OPPORTUNITIES FOR ECOLOGICAL ENHANCEMENT

4.15 Planning policy at the national and local level and strategic biodiversity partnerships encourage inclusion of ecological enhancements in development projects. Ecological enhancements can also contribute to green infrastructure and ecosystem services such as storm water attenuation and reducing the urban heat island effect. The following measures would be suitable for integration into the site's design, but would require a more detailed design to successfully implement.

Biodiverse roof

4.16 There is potential for the site to be enhanced through the inclusion of areas of biodiverse green roof on the new building. To demonstrate the highest feasible and viable sustainability standards in-line with the London Plan Policy and Camden Planning Policy, it is recommended that a biodiverse roof is used. Such roofs are preferable to standard sedum species dominated roofs that deliver little in the way of biodiversity value and ecosystem services as they are typically less species-rich and have a shallower substrate depth. The green roof should include additional habitat features where possible such as temporary pools and rotting wood that will enhance the wildlife value of the site. Habitat features can be designed specifically to attract target species, such as the London BAP species house sparrow and black redstart. It is recommended that advice is sought from a professional green roof consultancy such as the Green Infrastructure Consultancy (http://greeninfrastructureconsultancy.com/services/) in order to design the specification of the green roof in-line with the environmental goals of the development.

Provision of bird nesting and bat roosting opportunities

4.17 The provision of bird boxes and bat would be appropriate at this site. Many different designs are available which target different species groups.

4.18 Woodcrete bird and bat boxes are recommended as they are long lasting compared to wooden boxes, insulate occupants from extremes of temperature and condensation and are available in a broad range of designs.

4.19 A list of approved wildlife equipment suppliers, which supply a diverse range of bird and bat boxes, include the following:

- http://www.jacobijayne.com/
- http://www.schwegler-natur.de/
- http://www.nhbs.com/browse/subject/307/equipment
- http://www.wildcareshop.com/
- http://www.birdbrickhouses.co.uk

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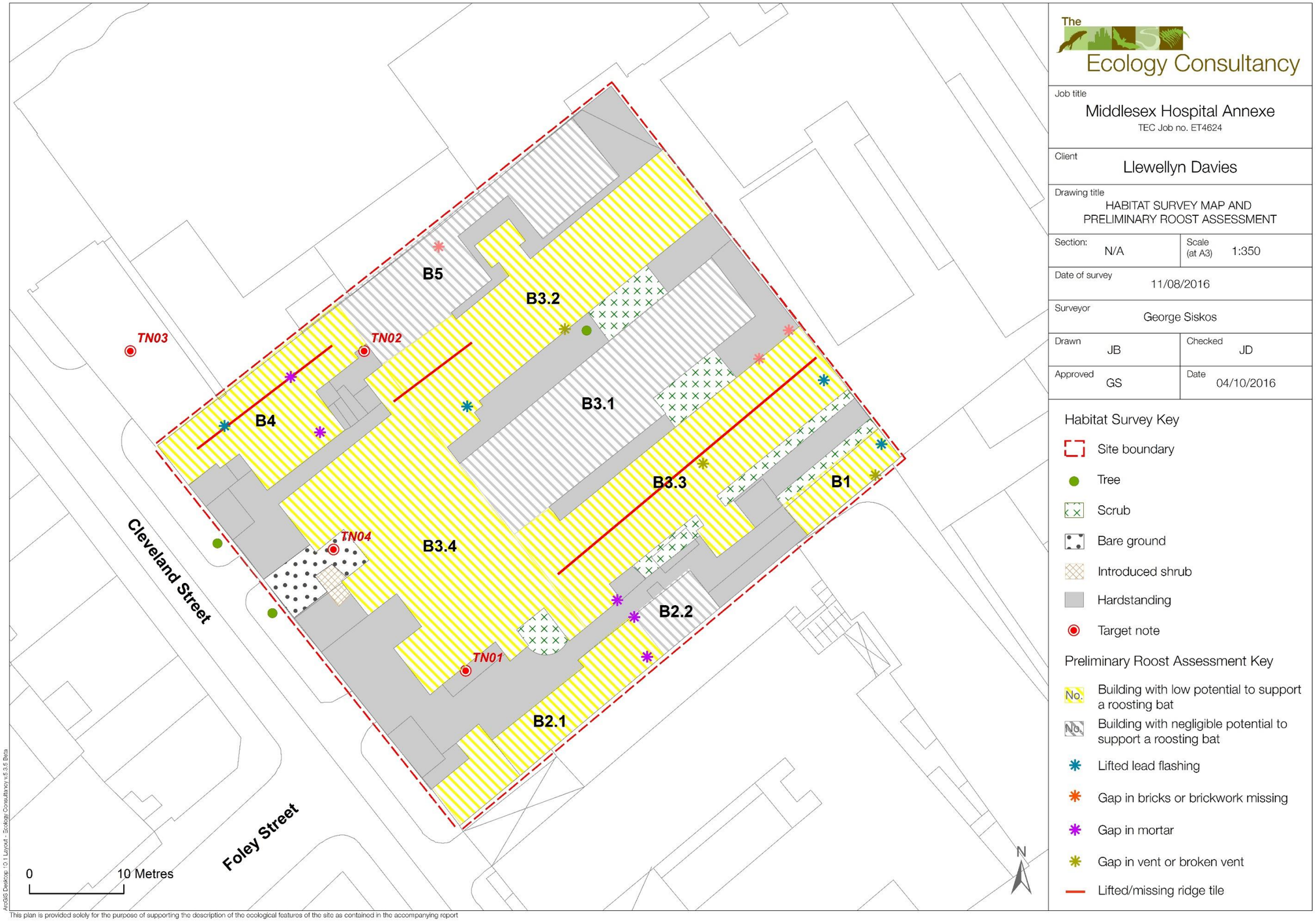
Appendix 1: Habitat and Preliminary Roost Assessment Map

Figure 1: Habitat Survey and Preliminary Roost Assessment Map



The Ecology Consultancy

Job title
Middlesex Hospital Annexe
TEC Job no. ET4624

Client
Llewellyn Davies

Drawing title
HABITAT SURVEY MAP AND PRELIMINARY ROOST ASSESSMENT

Section:	Scale (at A3)
N/A	1:350

Date of survey: 11/08/2016

Surveyor: George Siskos

Drawn	Checked
JB	JD

Approved	Date
GS	04/10/2016

Habitat Survey Key

- Site boundary
- Tree
- Scrub
- Bare ground
- Introduced shrub
- Hardstanding
- Target note

Preliminary Roost Assessment Key

- No. Building with low potential to support a roosting bat
- No. Building with negligible potential to support a roosting bat
- Lifted lead flashing
- Gap in bricks or brickwork missing
- Gap in mortar
- Gap in vent or broken vent
- Lifted/missing ridge tile

Appendix 2: Photographs

Photograph 1
Western elevation of B1 and scrub.

Photograph 2
Flat roof section of B2 with ash saplings growing through

Photograph 3
View of B3.3, B3.3 and B3.4.

Photograph 4
View of young ash tree, scrub and B3.1.

Photograph 5
Gap in mortar of B3.1

Photograph 6
Buddleia growing from the southern elevation of B3.4.

Photograph 7
Biodiverse roof adjacent to the north western boundary of the site..

Photograph 8
Missing / lifted ridge tiles on B3.2

Appendix 3: Plant Species List

Plant Species List for Middlesex House compiled from Phase 1 habitat survey carried out on the 11 August 2016.

Scientific nomenclature and common names for vascular plants follow Stace (2010) and Blockeel & Long (1998) for bryophyte species. Please note that this plant species list was generated as part of a Phase 1 habitat survey, does not constitute a full botanical survey and should be read in conjunction with the associated results section of this PEA.

Abundance was estimated using the DAFOR scale as follows:
D = dominant, A = abundant, F = frequent, O = occasional, R = rare, L = locally
c=clumped, e=edge only, g=garden origin, p=planted, y = young, s=seedling or sucker, t=tree, h=hedgerow, w=water

SCIENTIFIC NAME	COMMON NAME	ABUNDANCE	QUALIFIER
Acer campestre	Field maple	R	t
Asplenium scolopendrium	Hart's-tongue	O	
Asplenium trichomanes	Maidenhair spleenwort	R	
Buddleja davidii	Buddleia	LD	
Cirsium vulgare	Spear thistle	R	
Cupressus x leylandii	Leyland cypress	R	p
Dianthus	Carnation	R	p
Dryopteris filix-mas	Male-fern	R	
Euphorbia sp	Spurge	O	
Fraxinus excelsior	Ash	R	t
Geranium robertianum	Herb-Robert	R	
Geranium sp.	Crane's-bill	O	p
Helianthus annuus	Sunflower	R	p
Hordeum murinum	Wall barley	R	
Poa annua	Annual meadow-grass	O	
Sonchus sp.	Sow-thistles	R	
Tagetes sp.	Pot marigold	R	p
Taraxacum sp.	Dandelion	O	p
Trifolium sp.	Clover	R	
Urtica dioica	Common nettle	R	

Appendix 4: Target Notes

Target Notes List for Middlesex Hospital Annex from the Phase 1 habitat survey and protected and notable species assessment carried out on the 11 August 2016.

Target note (TN)	Description
1	Buddliea growing from the south-western elevation of B3.4 (Appendix 2, Photograph 6)
2	Feral pigeons roosting in basement of B4.
3	Biodiverse roof to the north west of the site on adjacent land. (Appendix 2, Photograph 7)
4	Plant pots with various horticultural plants located to the south west of B3.4. (Appendix 2, Photograph 8)

Appendix 5: Legislation and Planning Policy

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

A NATIONAL LEGISLATION AFFORDED TO SPECIES

The objective of the EC Habitats Directive[11] is to conserve the various species of plant and animal which are considered rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (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) is a key piece of national legislation which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection obligations of Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

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

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

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

Species and species groups that are protected or otherwise regulated under the aforementioned domestic and European legislation, and that are most likely to be affected by development activities, include herpetofauna (amphibians and reptiles), badger, bats, birds,

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

dormouse, invasive plant species, otter, plants, red squirrel, water vole and white clawed crayfish.

Explanatory notes relating to species protected under The Conservation of Habitats and Species Regulations 2010 (as amended) (which includes smooth snake, sand lizard, great crested newt and natterjack toad), all bat species, otter, dormouse and some plant species) are given below. **These should be read in conjunction with the relevant species sections that follow.**

- In the Directive, the term 'deliberate' is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.
- The Conservation of Habitats and Species Regulations 2010 (as amended) does not define the act of 'migration' and therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.
- In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three 'tests': i) the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment; ii) that there is no satisfactory alternative and iii) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

Bats

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:

  a) to impair their ability:

  (i) to survive, breed, or reproduce, or to rear or nurture young;

  (ii) to hibernate or migrate[3]

  b) to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place

- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

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

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

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

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

Though there is no case law to date, the legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded de facto protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost[12].

Dormice

Dormice are fully protected under The Conservation of Habitats and Species Regulations 2010 through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of any individual;
- Deliberate disturbance which is likely to:

    a) to impair their ability:

    (i) to survive, breed, or reproduce, or to rear or nurture young;

    (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate

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

b) to affect significantly the local distribution or abundance of the species

- Damage or destruction of a breeding site or resting place
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

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

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

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

A European Protected Species Mitigation (EPSM) license, issued by the relevant countryside agency (e.g. Natural England), will be required for works liable to affect dormouse breeding or resting places (N.B. this is usually taken to mean dormouse nests) or for operations likely to result in a level of disturbance which might impair their ability to survive, breed, rear young and hibernate. The license is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place, and their efficacy to be monitored.

Badgers

Badgers receive protection under The Protection of Badgers Act 1992 which consolidates the previous Badger Acts of 1973 and 1991. The Act makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure or take a badger;
- Cruelly ill-treat a badger, including use of tongs and digging;
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett or any part thereof;
- Intentionally or recklessly disturb a badger when it is occupying a badger sett; or,
- Intentionally or recklessly cause a dog to enter a badger sett.

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

A badger sett is defined in the legislation as “any structure or place which displays signs indicating current use by a badger”. A Development Licence would be required from Natural

England for any development works liable to directly impact an active badger sett, or to disturb badgers whilst in the sett. Natural England has issued guidelines on what constitutes a licensable activity.

Natural England published an interim guidance document entitled '*Badgers and Development, A Guide to Best Practice and Licensing'* (2007), which provides guidance on how development can be carried out within the law and in a way that minimises the detrimental impact on this species. Natural England advises that foraging areas should be maintained or new foraging areas created and that access between setts and foraging/watering areas should be maintained or new ones provided (Natural England, 2007).

Birds

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

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

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

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

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

To avoid contravention of the Wildlife and Countryside Act 1981 (as amended), works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird breeding season which typically runs from March to

August[13]. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

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

Invasive Plant Species

Certain species of plant, including Japanese knotweed *Fallopia japonica*, giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera* are listed on Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) in respect to Section 14(2). Such species are generally 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.

How is the legislation pertaining to invasive plants liable to affect development works?

Although it is not an offence to have these plants on your land per se, it is an offence to cause these species to grow in the wild. Therefore, if they are present on site and development activities (for example movement of spoil, disposal of cut waste or vehicular movements) 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 happening prior to the commencement of works.

Wild Mammals (Protection) Act 1996

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

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

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild

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

mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

B NATIONAL AND EUROPEAN LEGISLATION AFFORDED TO HABITATS

Statutory Designations: National

Nationally important areas of special scientific interest, by reason of their flora, fauna, or geological or physiographical features, are notified by the countryside agencies as statutory Sites of Special Scientific Interest (SSSIs) under the National Sites and Access to the Countryside Act 1949 and latterly the Wildlife & Countryside Act 1981 (as amended). As well as underpinning other national designations (such as National Nature Reserves which are declared by the countryside agencies under the same legislation), the system also provides statutory protection for terrestrial and coastal sites which are important within a European context (Natura 2000 network) and globally (such as Wetlands of International Importance). See subsequent sections for details of these designations. Improved provisions for the protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales).

The Wildlife & Countryside Act 1981 (as amended) also provides for the making of Limestone Pavement Orders, which prohibit the disturbance and removal of limestone from such designated areas, and the designation of Marine Nature Reserves, for which byelaws must be made to protect them.

Statutory Designations: International

Special Protection Areas (SPAs), together with Special Areas of Conservation (SACs) form the Natura 2000 network. The Government is obliged to identify and classify SPAs under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds). SPAs are areas of the most important habitat for rare (listed on Annex I of the Directive) and migratory birds within the European Union. Protection afforded SPAs in terrestrial areas and territorial marine waters out to 12 nautical miles (nm) is given by The Conservation of Habitats & Species Regulations 2010 (as amended). The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SPAs in UK offshore waters (from 12-200 nm).

The Government is obliged to identify and designate SACs under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora). These are areas which have been identified as best representing the range and variety

of habitats and (non-bird) species listed on Annexes I and II to the Directive within the European Union. SACs in terrestrial areas and territorial marine waters out to 12 nm are protected under The Conservation of Habitats & Species Regulations 2010 (as amended). The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SACs in UK offshore waters (from 12-200 nm).

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and wise use, in particular recognizing wetlands as ecosystems that are globally important for biodiversity conservation. Wetlands can include areas of marsh, fen, peatland or water and may be natural or artificial, permanent or temporary. Wetlands may also incorporate riparian and coastal zones adjacent to the wetlands. 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. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. This effectively extends the level of protection to that afforded to sites which have been designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs).

Statutory Designations: Local

Under the National Sites and Access to the Countryside Act 1949 Local Nature Reserves (LNRs) may be declared by local authorities after consultation with the relevant countryside agency. LNRs are declared for sites holding special wildlife or geological interest at a local level and are managed for nature conservation, and provide opportunities for research and education and enjoyment of nature.

Non-Statutory Designations

Areas considered to be of local conservation interest may be designated by local authorities as a Wildlife Site, under a variety of names such as County Wildlife Sites (CWS), Listed Wildlife Sites (LWS), Local Nature Conservation Sites (LNCS), Sites of Biological Importance (SBIs), Sites of Importance for Nature Conservation (SINCs), or Sites of Nature Conservation Importance (SNCIs). The criteria for designation may vary between counties.

Together with the statutory designations, these are defined in local and structure plans under the Town and Country Planning system and are a material consideration when planning

applications are being determined. The level of protection afforded to these sites through local planning policies and development frameworks may vary between counties.

Regionally Important Geological and Geomorphological Sites (RIGS) are the most important places for geology and geomorphology outside land holding statutory designations such as SSSIs. Locally-developed criteria are used to select these sites, according to their value for education, scientific study, historical significance or aesthetic qualities. As with local Wildlife Sites, RIGS are a material consideration when planning applications are being determined.

C NATIONAL PLANNING POLICY

The National Planning Policy Framework (NPPF)

The National Planning Policy Framework (NPPF) replaced Planning Policy Statement (PPS9) in April 2012 as the key national planning policy concerning nature conservation. The NPPF emphasises the need for suitable development. The Framework specifies the need for protection of designated sites and priority habitats and priority species. An emphasis is also made for the need for ecological networks via preservation, restoration and re-creation. The protection and recovery of priority species – that is those listed as UK Biodiversity Action Plan priority species – is also listed as a requirement of planning policy. In determining a planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

The Natural Environment and Rural Communities Act 2006 and The Biodiversity Duty

The Natural Environment and Rural Communities (NERC) Act came into force on 1st October 2006. Section 40 of the Act requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' They are referred to in this report as Species of Principal Importance and Habitats or Principal Importance. This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species

are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

D LOCAL PLANNING POLICY

Camden Local Development Framework

A number of policies outlined in Camden Local Development Framework: Camden Development Policies, adopted version 2010 (Camden Council, 2010) are relevant to the site, detailed below.

Policy DP22 - Promoting sustainable design and construction

The Council will require development to incorporate sustainable design and construction measures. Schemes must:

a) demonstrate how sustainable development principles, including the relevant measures set out in paragraph 22.5 below, have been incorporated into the design and proposed implementation; and

b) incorporate green or brown roofs and green walls wherever suitable.

The Council will promote and measure sustainable design and construction by:

c) expecting new build housing to meet Code for Sustainable Homes Level 3 by 2010 and Code Level 4 by 2013 and encouraging Code Level 6 (zero carbon) by 2016.

d) expecting developments (except new build) of 500 sq m of residential floorspace or above or 5 or more dwellings to achieve “very good” in EcoHomes assessments prior to 2013 and encouraging “excellent” from 2013;

e) expecting non-domestic developments of 500sqm of floorspace or above to achieve “very good” in BREEAM assessments and “excellent” from 2016 and encouraging zero carbon from 2019.

The Council will require development to be resilient to climate change by ensuring schemes include appropriate climate change adaptation measures, such as:

f) summer shading and planting;

g) limiting run-off;

h) reducing water consumption;

i) reducing air pollution; and

j) not locating vulnerable uses in basements in flood-prone areas.

Green and brown roofs and green walls

22.7 Green and brown roofs and green walls play important roles in achieving a sustainable development. They retain rainfall and slow its movement, provide additional insulation, provide valuable habitat to promote biodiversity, provide opportunities for growing food, reduce the heating up of buildings and the wider city and provide valuable amenity space. They should be designed to enable the benefits that are most suitable for the site. This will include ensuring a sufficient soil depth is provided and selecting the correct substrate and vegetation. The design of green walls should ensure sufficient irrigation for plants without the need for excessive energy consumption for pumping water.

22.8 Green and brown roofs can be easily incorporated into a flat roof and, where carefully designed, on a pitched roof. Therefore, it is important that the inclusion of a green or brown roof is considered at the initial design stage. In historic areas where a specific roof form dominates, it may be possible to incorporate a green or brown roof at the rear of buildings where they would not be visible from the street. Further details on our expectation for green and brown roofs and green walls can be found in our Camden Planning Guidance supplementary document.

Designing to adapt to climate change

22.15 It is predicted that in the future we will experience warmer and wetter winters and hotter and drier summers. These changes could lead to more intense rainfall and local flooding; subsidence due to increased shrinking and expanding of Camden's clay base; poorer air quality; a hotter micro-climate; and increased summer electricity use due to increased demand for cooling. Alongside the measures to reduce the effects of climate change set out above, we will require developments to incorporate appropriate measures to enable occupants to adapt and cope with climatic changes. Measures include:

- natural ventilation;
- summer shading;
- planting trees and vegetation;
- openable windows;
- the provision of external space; and
- the inclusion of pervious surfaces to enable water to infiltrate the ground to reduce clay shrinking and flooding.

F SPECIES AND HABITATS OF MATERIAL CONSIDERATION FOR PLANNING IN ENGLAND

In recent years there has been some confusion and uncertainty over the use of Biodiversity Action Plan (BAP) list as a material planning consideration in England. The uncertainty has arisen as a consequence of the publication of Biodiversity 2020: A strategy for England's wildlife and ecosystem services (2011) to replace the previous England Biodiversity Strategy, coupled with the replacement of the UK BAP itself with the UK Post-2010 Biodiversity Framework (2012). Biodiversity issues are now devolved. These new strategies and framework resulted in changes in the terminology used to describe priority habitats and species in England.

Previous planning policy (and some supporting guidance which is still current, eg ODPM Circular 06/2005, now under revision), refers to UK BAP species as being a material consideration in the planning process. Equally many local plans refer to BAP priority habitats and species. Both remain as material considerations in the planning process but such habitats and species are now described as Species and Habitats of Principal Importance for Conservation in England, or simply priority habitats and priority species. The list of habitats and species remains unchanged and is still derived from Section 41 list of the Natural Environmental and Rural Communities (NERC) Act 2006. As was previously the case when it was a BAP priority species hen harrier continues to be regarded as a priority species although it does not appear on the Section 41 list. So the same species and habitats are of material consideration for planning purposes as previously was the case, they are just referenced using different terminology.

Given the relatively recent nature of these changes you will still see references in local plans and some Government or Government agency documents and circulars to BAP habitats and species. As stated above these same habitats and species remain material considerations in planning albeit they are now referred to either as habitats and species of principal importance or simply priority habitats and priority species.

http://www.naturalengland.org.uk/ourwork/conservation/biodiversity/protectandmanage/habsandspeciesimportance.aspx

G LOCAL BAPs

The Camden BAP (Camden Council, 2015) contains a number of habitats and species priorities in Camden. Specific habitat and species action plans listed in the Camden BAP, which are of potential relevance to this site, include:

- House sparrow – recommended enhancements could attract this species.
- Common pipistrelle
- Soprano pipistrelle

The Ecology Consultancy is part of the Temple Group.

Experience and quality that make a difference

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