156 West End Lane

a2dominion

Preliminary Ecological Appraisal

June 2016

The Ecology Consultancy

156 West End Lane, West Hampstead

Preliminary Ecological Appraisal (including bat and bird survey)

Report for A2 Dominion Developments Limited

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Content

Executive Summary

A Preliminary Ecological Appraisal was carried out at 156 West End Lane, West Hampstead on 2 May 2015. This report presents the results of the survey and provides an assessment of any ecological constraints applying to the proposed development and recommendations for protecting, managing and enhancing the wildlife value of the site. This assessment has been amended and resubmitted following the design freeze of revised plans in May 2016. The main findings of the survey are as follows:

- The site does not form part of any statutory site and no statutory sites are located within one kilometre (km) of the site.
- The site is not suject to any non-statutory designations. There are twelve non-statutory designated Sites of Importance for Conservation located within a 1km radius of the site. The nearest of which is West Hampstead Railsides, Medley Orchard and Westbere Copse Site of Borough Grade I Importance for Nature Conservation, located on either side of the site approximately 100 metres (m) east and west. It adjoins a Habitat Corridor Missing Link identified in London Borough of Camden's Policies Map (2014 v3).
- Habitats on site comprised a building, hard standing, introduced shrub, scattered scrub and overhanging scattered trees.
- The site had low potential to support breeding birds. Mitigation measures will be required to address the potential presence of breeding birds in-line with relevant protected species legislation. Further detail is provided in Section 5.
- The site had negligible potential to support bats and was unsuitable to support any other protected species.
- Enhancement recommendations in order to improve the ecological value of the site beyond its baseline condition are provided in Section 5.

1 Introduction

BACKGROUND

1.1 The Ecology Consultancy was commissioned by A2 Dominion Developments Limited in April 2015, to carry out a Preliminary Ecological Appraisal of the proposed development site at 156 West End Lane, West Hampstead, London. This assessment has been amended and resubmitted following the design freeze of revised plans in May 2016.

SCOPE OF THE REPORT

1.2 This report outlines the methodologies and results of the Preliminary Ecological Appraisal conducted on 2 May 2015. 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).

1.3 The survey was carried out on in order to provide baseline ecological information and to assess the potential for the site to support protected species. The assessment highlights any potential ecological constraints associated with the proposed development and provides recommendations for further surveys and/or mitigation measures. This appraisal considers land within the planning application site boundary as indicated in Apprendix 1, Figure 1 (hereafter this area is referred to as 'the site').

1.4 A habitat map of the site is included in Appendix 1, together with photographs provided in Appendix 2. A full list of plant species that were present on site are provided in Appendix 3. The relevant legislation and planning policies relating to protected species and habitats are set out in Appendix 4.

SITE CONTEXT AND STATUS

1.5 The site is located in an urbanised commercial and residential area on the eastern side of West End Lane in West Hampstead, London. The site is immediately bound by residential properties to the north, a multipurpose games area to the east, a public footpath and railway to the south, and commercial premises fronting West End Lane to the west. West Hampstead Thameslink station is located approximately 50 metres (m) south of the site and West Hampstead Overground station is located approximately 110m south of the site.

1.6 The nearest areas of open green space comprise Hampstead Cricket and Sports Club, located approxiamtely 160m north-east, Maygrove Peace Park located approximately 510m west and Kilburn Grange Park located approximately 620m south-west of the site.

1.7 The proposed development site is approximately 0.64 hectares (ha) in size, centered approximately on National Grid Reference TQ 256 848.

DEVELOPMENT PROPOSAL

1.8 The development proposal is for the demolition of all existing buildings and redevelopment of the site to provide 163 mixed-tenure homes (Use Class C3), new floorspace for town centre uses (Use Classes A1, A2, A3, D1 or D2), new employment floorspace (including four dedicated units for start-up businesses) (Use Class B1), a community meeting room and new and improved public open spaces, together with associated new landscaping, on-site access, servicing and disabled car parking.

2 Methodology

DESK STUDY

2.1 Information regarding the present and historical ecological interest of the site within a 1km radius was commissioned from Greenspace Information for Greater London (GiGL, 2015). A search was also completed of on-line mapping service MAGIC (http://magic.defra.gov.uk/) to ascertain the presence of any statutory designated sites within the local vicinity.

2.2 The following information regarding the present and historical ecological interest of the site and land within a 1km radius was sourced from GiGL and MAGIC:

- statutory sites of nature conservation importance;
- non-statutory sites designated as Sites of Importance for Nature Conservation (SINCs) at county/metropolitan level as being of local conservation importance and often recognised in Local Authority development plans;
- species protected by legislation (protected species);
- Habitats and Species of Principal Importance for the Conservation of Biodiversity[1] in England under the NERC Act 2006 which may be relevant to the site (hereafter referred to as 'Species of Principal Importance' and 'Habitats of Principal Importance');
- rare and other noteworthy species such as those on 'red lists' using IUCN criteria and Birds of Conservation Concern (BoCC)[2]; and,
- habitats and species listed in the London BAP and Camden BAP.

HABITAT SURVEY

2.3 A field survey of the site was carried out on 2 May 2015. Habitats were described and mapped following standard Phase 1 habitat survey methodology (JNCC, 2010), modified for use in London by the Greater London Authority (GLA, 2002). A full list of plant species identified during the survey, along with an assessment of their

[1] 56 Habitats of Principal Importance for Biodiversity and 943 Species of Principal Importance for Biodiversity are included in the NERC Act. These are all the habitats and species in England that were identified as requiring action in the UK Biodiversity Action Plan (UK BAP) and continue to be regarded as conservation priorities in the subsequent UK Post-2010 Biodiversity Framework.

[2] BTO, 2009 (http://www.bto.org/sites/default/files/u37/downloads/recording/bocc3.pdf).

abundance[3], is provided in Appendix 3. 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. 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) (see Appendix 4).

2.4 The survey was conducted by a suitably experienced and qualified ecologist, who is competent in carrying out extended Phase 1 habitat surveys and is an associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM).

Noteworthy Habitats

2.5 The potential for the site to support Habitats of Principal Importance[4] and noteworthy habitats[5] was assessed from records obtained from the desk study, field observations, and botanical records obtained during the site survey.

PROTECTED SPECIES ASSESSMENT

2.6 The potential of the site to support legally protected species[6] was assessed from field observations carried out at the same time as the habitat survey, combined with the results of the desk study.

2.7 The site was inspected for indications of the presence of protected species. Those species considered potentially present, owing to the presence of suitable habitat within the site, were considered as follows:

- assessment of features on buildings and trees that could offer potential to support roosting bats (features include roof voids, tiles, lead flashing, cracks in brickwork, soffits, fissures, knot holes, flaked bark); and,
- assessment of the presence of nesting habitat for breeding birds and evidence of recent bird nesting activity (including territorial activity, old nests and faecal marks etc.).

[3] Plant species abundance was recorded using the DAFOR system (where D = dominant, A = abundant, F= frequent, O = occasional and R = rare).
[4] Habitats of Principal Importance are those listed on Section 41 of the Natural Environment and Rural Communities Act, 2006.
[5] Noteworthy habitats include Local Biodiversity Action Plan (LBAP) habitats.
[6] 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; or in the Protection of Badgers Act, 1992.

Noteworthy Species

2.8 The potential for the site to support Species of Principal Importance[7] and noteworthy species[8] was assessed from records obtained from the desk study, field observations made during the survey, and an assessment of the suitability of habitats present on site.

Protected Species Assessment Criteria

2.9 The likelihood of occurrence of protected, noteworthy and/or invasive species is ranked as follows and relies on the findings of the current survey and an evaluation of existing data.

- Negligible – while presence cannot be absolutely discounted, the site includes very limited or poor quality habitat for a particular species or species group. No local returns from a data search, surrounding habitat considered unlikely to support wider populations of a species/species group. The site may also be outside of, or peripheral to, a known national range for a species.
- Low – on-site habitat of poor to medium quality for a given species/species group. Few or no returns from data search, but presence cannot be discounted on the basis of national distribution, nature of surrounding habitats, habitat fragmentation, recent on-site disturbance etc.
- Medium – on-site habitat of medium quality, providing all of the known key requirements of a given species/species group. Local returns from the data search, within national distribution, suitable surrounding habitat. Factors limiting the likelihood of occurrence may include small habitat area, habitat severance, and disturbance.
- High – on-site habitat of high quality for a given species/species group. Local records provided by desk study. The site is within/peripheral to a national or regional stronghold. Good quality surrounding habitat and good connectivity.
- Present – presence confirmed from the current survey or by recent, confirmed records.

2.10 The purpose of this assessment is to identify whether more comprehensive Phase 2 surveys and/or mitigation measures for protected species should be recommended. If,

[7] Species of Principal Importance are those listed on Section 41 of the Natural Environment and Rural Communities Act, 2006.
[8] Noteworthy species include Local Biodiversity Action Plan (LBAP) species and/or Red Data Book/nationally notable or otherwise scarce species (JNCC, undated).

on the basis of the preliminary assessment or during subsequent survey, it is considered likely that protected species may be present, recommendations for further surveys will be made. Without further surveys, it would not be possible to determine the presence/likely absence of that species.

SITE EVALUATION

2.11 The site has been evaluated broadly following guidance issued by the Institute of Ecology and Environmental Management[9] (IEEM, 2006), according to a geographic scale (significance at the international level down to the site level) and using a range of criteria for assigning ecological value, as follows:

- Presence of sites or features designated for their nature conservation interest. Examples include internationally or nationally designated sites such as Special Areas of Conservation (SACs) and Sites of Special Scientific Interest (SSSIs), locally designated sites such as Local Nature Reserves (LNRs) and non-statutory sites such as SINCs;
- Biodiversity value, for example, habitats or species which are rare or uncommon, species-rich assemblages, species which are endemic or on the edge of their range, large populations or concentrations of uncommon or threatened species, and/or plant communities that are typical of valued natural/semi-natural vegetation types;
- Potential value, as addressed by targets to increase the biodiversity value for example of SSSIs, international sites and some BAP species and habitats. If detailed plans exist to enhance the value of such areas, then it may be appropriate to value them as if the intended resource already existed;
- Secondary and supporting value, for example, habitats or features which provide a buffer to valued features or which serve to link otherwise isolated features;
- Presence of Habitats of Principal Importance;
- Presence of Species of Principal Importance; and,
- Presence of London BAP and Camden BAP Priority Habitats and Species.

9 Established in 1991, the Institute of Ecology and Environmental Management (IEEM) received the Royal Charter in 2013, becoming the Chartered Institute of Ecology and Environmental Management (CIEEM).

2.12 The ecological interest of the site and the proposed development have also been evaluated in terms of Camden's Local Development Framework (LDF), containing planning policies relating to nature conservation.

LIMITATIONS

2.13 Whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation and prediction of the natural environment.

2.14 When interpreting desk study results, 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. This is taken into account when interpreting records and also through the Phase 1 habitat survey methodology, which identifies where protected species may be supported within the site.

2.15 This Preliminary Ecological 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.

2.16 The protected species assessment provides a preliminary view of the likelihood of protected species occurring on site, based on the suitability of the habitat, known distribution of the species in the local area provided in response to our enquiries, and any direct evidence on the site. It should not be taken as providing a full and definitive survey of any protected species group. It is only valid at the time the survey was carried out. If, on the basis of the preliminary assessment or during subsequent surveys, it is considered reasonably likely that other protected species may be present, recommendations for further surveys will be made. Without such surveys, it would not be possible to determine presence / likely absence of that species.

2.17 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 species. Any limitations on the robustness of data will be addressed by taking a precautionary approach to mitigation.

3 Results

DESK STUDY

3.1 The following records regarding present and historical ecological interest at the site, and within a 1km radius of the site, were supplied by GiGL. Records are summarised in paragraphs 3.2-3.8 below.

Statutory Sites of Importance for Nature Conservation (SINCs)

3.2 The proposed development site is not subject to any statutory nature conservation designations, such as Special Protection Area (SPA), SAC, SSSI, Ramsar, LNR, or National Nature Reserves (NNR) and there are no such areas designated within a 1km radius of the site.

Non-Statutory Sites of Importance for Nature Conservation

3.3 The proposed development site does not form part of a non-statutory designated site. However, there are 12 non-statutory sites designated as SINCs located within the 1km data search area.

3.4 The nearest SINC is West Hampstead Railsides, Medley Orchard and Westbere Copse Site of Borough Grade I Importance for Nature Conservation, located to either side of the site approximately 100m east and west. Eleven further SINCs, including three further Sites of Borough Grade I Importance for Nature Conservation, five Sites of Borough Grade II Importance for Nature Conservation and three Sites of Local Importance for Nature Conservation are located within 1km of the site. Details of all sites are described in Table 1 below.

Table 1: Non-Statutory sites within a 1km radius of the site boundary.

Site Name	Reason for designation	Area (ha)	Distance (m) and orientation from site
Sites of Borough Grade I Importance for Nature Conservation			
Silverlink Metro between Brondesbury and Willesden Junction	*A long railway cutting, providing important bare ground, scattered trees, scrub, semi-improved grassland, and tall herbs. These habitats form an important area for birds, reptiles, mammals and insects.*	9.85	955 SW

Table 1: Non-Statutory sites within a 1km radius of the site boundary.

Site Name	Reason for designation	Area (ha)	Distance (m) and orientation from site
Hampstead Cemetery	*Habitats include planted shrubbery, scattered trees, secondary woodland, semi-improved grassland and tall herbs, which provide habitat for a variety of butterflies and birds.*	9.31	860 NW
West Hampstead Railsides, Medley Orchard and Westbere Copse	*Wooded railsides that include a nature reserve and orchard, comprised of scattered trees, scrub, secondary woodland, semi-improved grassland and tall herbs. Habitats support a number of bird species, including blue tit, great tit, robin, blackbird, wren and dunnock.*	7.94	100m E and W
Hampstead Parish Churchyard	*Habitats include indicative acid grassland, planted shrubbery, scattered trees, tall herbs and vegetated walls/tombstones.*	0.9	860 NE
Sites of Borough Grade II Importance for Nature Conservation			
Broadhurst Gardens Meadow	*A communal garden comprised of scattered trees, scrub, dead wood and semi-improved grassland. The site supports a number of invertebrate families, including butterflies, beetles, hoverflies and grasshoppers.*	0.73	320 SE
Frognal Court Wood	*A small secondary woodland with understorey shrub and ground flora layers. The site supports a number of bird species including long-tailed tit, wren, robin, greenfinch, blue tit, song thrush, and blackbird.*	0.2	600 E
Green Triangle	*An organic community garden with amenity grassland, planted shrubbery, a pond/lake, scattered trees, secondary woodland, tall herbs and a hedge of mixed native species. The pond supports a population of common frog.*	0.28	730 SE
King's College Hampstead Campus	*University campus grounds comprised of amenity grassland, planted shrubbery, scattered trees and tall herbs. the site attracts a variety of bird species.*	0.65	995 N
Gondar Gardens	*An undisturbed covered reservoir with semi-improved neutral grassland and a moderate diversity of wildflowers. The site supports*	1.1	740 NW

Table 1: Non-Statutory sites within a 1km radius of the site boundary.

Site Name	Reason for designation	Area (ha)	Distance (m) and orientation from site
Covered Reservoir	*common butterfly species, including common blue and meadow brown, foraging pipistrelle bats and common birds.*		
Site of Local Importance for Nature Conservation			
160 Mill Lane Community Garden	*A small community garden with a pond, scattered trees, scrub, and semi-improved grassland. The pond supports a population of smooth newts. Habitats also support a variety of invertebrates and common birds.*	0.19	375 NW
Frognal Lane Gardens	*A small private community garden with amenity grassland, planted shrubbery, a pond, scattered trees and scrub.*	0.55	470 NE
Kilburn Grange Park	*Habitats include amenity grassland, flower beds, planted shrubbery, tall ruderal, and scattered trees. Habitats support a range of common garden birds.*	3.32	600 SW

Protected and noteworthy species

3.5 Protected species, Species of Principal Importance, and noteworthy species such as London BAP and Camden BAP species have been recorded within a 1km radius of the site. Species that may potentially utilise the site are discussed below. The level of protection afforded to each species and the distance and orientation of the records, as well as the dates of those recorded, are provided below.

Bats

3.5 The data search returned one record for an unidentified bat species provided 564m north in 2001-2002, five records for pipistrelle bat species taken nearest the site at 737m north in 1993, and 13 records for common pipistrelle taken nearest the site at 449m north in 2007.

3.6 All bat species are protected under the Conservation of Habitats and Species Regulations 2010 (as amended) and the Wildlife and Countryside Act 1981 (as amended). Of those species recorded, soprano pipistrelle bat is a Species of Principal Importance. All bat species are listed in the London BAP and Camden BAP.

Birds

3.7 The data search returned records for 16 bird species. Of those species, birds that could potentially utilise the site include starling recorded nearest the site at 763m south-west in 2003 and house sparrow, recorded nearest the site at 433m south-west in 2000.

3.8 All breeding birds are protected under the Wildlife and Countryside Act 1981 (as amended). Of those bird species recorded above, both house sparrow and starling are Species of Principal Importance and are included on the BoCC red list. The house sparrow is also listed on the London BAP and Camden BAP.

EXTENDED PHASE 1 HABITAT SURVEY

Buildings and hard-standing

3.9 The building was located in the western third of the site and comprised of a five-storey office block with commercial showroom on the ground level, and two-storeys extending to the centre of the site. The building was constructed from brick with flat roofs and uPVC windows. A storage shelter was present to the east of the building, adjacent to the northern site boundary, which was constructed from metal with a flat roof. The remaining site area was comprised of hard-standing, with a car-parking area located to the south of the building, and a builders' merchants' yard to the east.

Scattered scrub

3.10 A narrow band of scattered scrub was present between the north building aspect and northern site boundary. Species were dominated by bramble *Rubus fruticosus* agg. with frequent butterfly bush *Buddleja davidii.* Butterfly bush was also present overhanging the southern boundary from the railway line.

Introduced shrub

3.11 Climbing plants had established over the top of the northern boundary wall, which included ivy *Hedera helix*, traveller's joy *Clematis vitalba* and rose *Rosa* sp. Ivy had also established on the north-east corner of the building.

Scattered trees

3.12 A number of scattered trees were located external to site and overhanging the northern boundary. Species were comprised of semi-mature pear *Pyrus domestica*, young stag's horn sumach *Rhus typhina*, semi-mature apple *Malus* sp., golden false acacia *Robinia pseudoacacia*, and a mature weeping silver birch *Betula pendula*, sycamore *Acer pseudoplatanus* and lime *Tilia* sp.

PROTECTED SPECIES ASSESSMENT

3.13 The habitats on site were evaluated as to their likelihood to support protected species. Those species identified as being potentially present, owing to suitable habitat being supported within the site, were:

- bats; and,
- breeding birds, including black redstart and peregrine falcon[10].

3.14 The likelihood of those species identified being present within the site are evaluated in Table 2 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.

Invasive plant species

3.15 The presence of invasive plant species, for which national legislation exists, is also considered in Table 2 below.

[10] Black redstart and peregrine falcon are fully protected species under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). This protects the bird, its eggs and nestlings from killing, injury, and damage or destruction to its nest as well as intentional disturbance to the bird while it is building its nest, or is in, on or near a nest containing eggs or young, or disturbance of the dependent young of such a bird. Therefore operations such as demolition, and/or those requiring planning permission, may affect this species adversely, and may therefore be controlled by the Act.

Table 2: Protected and Invasive Species Assessment.

Habitat/species	Main legislation and policy (see Appendix 4)	Reason for consideration	Likelihood of occurrence
Bats	Schedule 2 of the Conservation of Habitats and Species Regulations 2010 (as amended). Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).	The site contained potential roosting habitat (i.e. buildings and scattered trees). Records were provided from the data search.	**Negligible:** The building materials were in good condition with no visible cracks or crevices that would otherwise be suitable to support roosting bats. There were no roof voids present that would offer opportunities for roosting bats. The site contained no significant vegetation that would provide a foraging resource for bats. As such the site had negligible potential to support roosting bats.
Breeding birds Black redstart and peregrine falcon	Wildlife and Countryside Act 1981 (as amended). Schedule 1 of the Wildlife and Countryside Act 1981 (as amended).	The site contains suitable breeding habitat (buildings and shrub). Records were provided for widespread bird species from the data search.	**Low:** The climbing plants that had established on the northern boundary wall and north-east corner of the building offered a few nesting opportunities for widespread bird species i.e. robin, wren, blackbird. The scattered trees overhanging the northern boundary also had potential to support a low number of widespread nesting bird species. The building did not support any flat ledges that would be suitable for nesting pigeon, however opportunistic gull species (i.e. lesser black-backed gull and herring gull) may utilise the flat roof for breeding. The scattered scrub was limited in extent and isolated between the building and northern boundary wall. As such, it is not considered that breeding birds would be able to access this area for breeding. The building was not of significant height and did not support any holes/gaps in the brickwork or tall undisturbed sheltered ledges that would otherwise be considered suitable to support widespread nesting bird species i.e. house sparrow/starling, black redstart or peregrine falcon.
Invasive species			
Invasive species	Section 14 and Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).	Invasive species are widespread in many urban habitats.	**Negligible:** No invasive plant species were recorded on site.

4 Evaluation

ECOLOGICAL VALUE

4.1 Habitats and species on the site were evaluated following standard guidance on ecological impact assessment published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2006) using the recommended geographic frame of reference. The site does not contain any features of ecological value at the international, national, county, district, or local level.

Features of value within the immediate vicinity of the site

4.2 The site contained climbing plants, which had potential to support a low number of widespread bird species. The scattered trees external to the site and overhanging the northern boundary also had potential to support widespread bird species.

Noteworthy habitats

4.3 The site did not support any Habitats of Principal Importance. However, the site is a priority habitat under 'built structures' in the London BAP and subject to Action Plan 2: Built Environment in the Camden BAP.

Noteworthy species

4.4 The building on site had low potential to support nesting lesser black-backed gull an amber listed[11] species in the RSPB's Birds of Conservation Concern (BoCC, 2009) and herring gull, a Species of Principal Importance and red listed[12] species in the RSPB's Birds of Conservation Concern (BoCC, 2009).

4.5 The site had negligible potential to support other Species of Principal Importance or any noteworthy species such as London BAP and Camden BAP species bats and house sparrow.

[11] BL Localisation. At least 50% of the UK breeding (BL) population found in 10 or fewer sites. BI International Importance. At least 20% of the European breeding (BI) population found in the UK. (BoCC, 2009).

[12] BDp Breeding Population Decline. Severe decline in the UK breeding population size, of more than 50%, over 25 years (BDp1) or the entire period used for assessments since the first BoCC review, starting in 1969 ("longer-term") (BDp2). WDp Non-breeding Population Decline. Severe decline in the UK non-breeding population size, of more than 50%, over 25 years (WDp1) or the longer-term (WDp2). WI International Importance. At least 20% of the non-breeding (WI) population found in the UK. (BoCC, 2009).

LOCAL PLANNING POLICY

4.6 On the basis of the survey undertaken, it is considered that development policies contained in Camden's Local Development Framework (LDF), adoption version 2010, are relevant to the site, as listed in Table 3 below. The full text of the relevant policies from this document are contained in Appendix 4.

Table 3: Camden's Local Development Framework; policies relevant to the site.

Policy	Relevance to the site
POLICY DP22 – Promoting sustainable design and construction	
The Council will require development to incorporate sustainable design and construction measures. *Schemes must: b) incorporate green or brown roofs and green walls wherever suitable.*	Enhancement advice is provided in Section 5 of this report to improve the biodiversity value of the site beyond its baseline condition. It is recommended that a biodiverse roof and green walls are incorporated into the proposed development.
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;*	It is recommended that planting of proven wildlife value are incorporated into the proposed landscape design.

4.7 156 West End Lane is also identified on LB Camden Policies Map (2014 v3) as Proposal Site 28 for which future development guidance is given in the Camden Site Allocations Local Development Document (9th September 2013). On the Policies Map it is situated immediately north and adjacent to an area marked as a "Habitat Corridor missing link". The Council has thereby identified that the development of this site provides an opportunity to enhance biodiversity value.

5 Conclusions and Recommendations

CONCLUSIONS

5.1 Habitats on site consisted of a building, hard-standing, scattered scrub, introduced shrub and overhanging scattered trees.

5.2 The site is not subject to any non-statutory designations. There are twelve non-statutory designated Sites of Importance for Conservation located within a one kilometre radius of the site. The nearest of which is West Hampstead Railsides, Medley Orchard and Westbere Copse Site of Borough Grade I Importance for Nature Conservation, located on either side approximately 100m east and west of the site.

5.3 The main ecological constraints that apply to the site are as follows:

- The vegetation on site (introduced shrub and scattered overhanging trees) had low potential to support widespread species of nesting bird.
- The building on site had low potential to support nesting gull species.

5.4 Mitigation measures will be required in order to address the potential presence of nesting birds and to ensure compliance with protected species legislation.

5.5 The site had negligible potential to support bats, and was unsuitable to support any other protected species, Species of Principal Importance or other noteworthy species.

5.6 The site did not contain any Habitats of Principal Importance, however the site is an important habitat under 'built structures' in the London BAP. It is encouraged through the planning policies outlined in Camden's LDF that features are installed within the built environment that are beneficial to wildlife.

5.7 Enhancement advice is provided below in order to improve the overall ecological value of the site and provide suitable habitat for targeted London BAP and Camden BAP species, in-line with Camden's LDF (Camden Council, 2010), The London Plan (GLA, 2011) and The Mayor's Biodiversity Strategy (GLA, 2002).

RECOMMENDATIONS

Mitigation

Breeding birds

5.8 All nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended). Habitats on site (introduced shrub) and overhanging the boundary (scattered trees) were considered likely to support widespread nesting bird species and the building had potential to support nesting gull species. As such, it is advised that the building is demolished and vegetation is cleared outside of the main bird nesting season (March to August, inclusive) to avoid any potential offences relating to nesting birds (Newton *et al.*, 2011).

5.9 Where this is not possible, a search for nesting birds up to 48 hours prior to building works/vegetation clearance taking place must be undertaken by an experienced ecologist. If any nests are found, the nests are to be protected by establishing an exclusion zone around the nest. Works may then proceed up to, but not within, this exclusion zone until such time as an ecologist confirms the young have fledged the nest. If nesting birds are found at any time during clearance works, work must stop immediately and an ecologist must be called to site immediately.

5.10 A general licence can be issued by DEFRA (https://www.gov.uk/wildlife-licences) for certain 'pest' species of bird, which allows 'authorised persons' to kill or take roof-nesting species in Britain, subject to the purpose of preserving public health or public safety. Bird species included under this licence are lesser black-backed gull, herring gull and pigeon. Removal of birds under this licence must be undertaken using humane treatment, without causing unnecessary harm or prolonged suffering, as stated under the Animal Welfare Act 2006.

Habitat Protection

Scattered trees

5.11 Retained semi-mature/mature trees adjacent to the site will need to be protected in accordance with the British Standard 5837:2012 *Trees in Relation to Design, Demolition and Construction* (BSBI, 2012).

Enhancement

5.12 The site has potential to be enhanced for biodiversity, which will aid in meeting local and national BAP objectives. In particular the following enhancement measures are recommended in order to meet Camden BAP objectives by addressing Local Development Framework policy DP22 – promoting sustainable design and

construction, following advice outlined in the Camden Biodiversity Advice Note: Living Roofs and Walls, which is included as an appendix to the Camden BAP; and providing a Habitat Corridor Missing Link as highlighted in London Borough of Camden's Proposals Map.

- a biodiverse roof should be installed on the new building (http://greenroofconsultancy.com/);
- landscaping should utilise plants of recognised wildlife value (https://www.rhs.org.uk/science/conservation-biodiversity/wildlife/encourage-wildlife-to-your-garden/plants-for-pollinators); and,
- climbing plants of wildlife value (i.e. jasmine/honeysuckle/clematis) should be retained on the northern boundary wall where possible and established on new walls or against trellising, where appropriate.

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) 42020:2013. *Biodiversity - Code of Practice for Biodiversity and Development*. Milton Keynes: BSI.

Camden Council (2010). Camden Local Development Framework: Camden Development Policies Adopted version 2010. Available on-line at http://www.camden.gov.uk/ccm/content/environment/planning-and-built-environment/two/planning-policy/local-development-framework/development-policies/. [Accessed: 11/05/15].

Camden Council (2015). *Camden Biodiversity Action Plan 2013-2018.* Available on-line at https://www.camden.gov.uk/ccm/content/leisure/outdoor-camden/wildlife-and-nature-conservation/camden-biodiversity-action-plan.en. [Accessed: 11/05/15].

CIEEM (Chartered Institute of Ecology and Environmental Management) (2006) *Guidelines for Ecological Impact Assessment in Britain and Ireland Marine and Coastal* (version 5 August 2010). Available on-line at http://www.ieem.net/data/files/Resource_Library/Technical_Guidance_Series/EcIA_Guidelines/Final_EcIA_Marine_01_Dec_2010. [Accessed: 11/05/15].

CIEEM (Chartered Institute of Ecology and Environmental Management) (2013) *Guidelines for Preliminary Ecological Appraisal*. Available on-line at http://www.cieem.net/data/files/Resource_Library/Technical_Guidance_Series/GPEA/GPEA_April_2013.pdf. [Accessed: 11/05/15].

GIGL – Greenspace for Greater London. (2015). An Ecological Data Search for West End Lane. Ref: 1432. GiGL, London.

Greater London Authority (2002) Connecting with London's nature: the Mayor's Biodiversity Strategy, Greater London Authority, London.

Greater London Authority. (2011). London Plan – Spatial Development Strategy for Greater London. Consultation draft replacement plan. GLA, London.

HMSO. (1981). The Wildlife and Countryside Act (WCA) (as amended).

HMSO. (1994). Biodiversity – the UK Action Plan (Cm 2428) HMSO, London.

HMSO. (2000). The Countryside and Rights of Way Act (CRoW).

HMSO. (2006). Animal Welfare Act (as amended).

HMSO (2010). The Conservation of Habitats and Species Regulations (as amended).

JNCC (2010). *Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit*. England Field Unit, Nature Conservancy Council. Reprinted by Joint Nature Conservation Committee, Peterborough.

MAGIC (2015). *Multi-Agency Geographic Information for the Countryside*. Available on-line at www.magic.gov.uk [Accessed: 11/05/15].

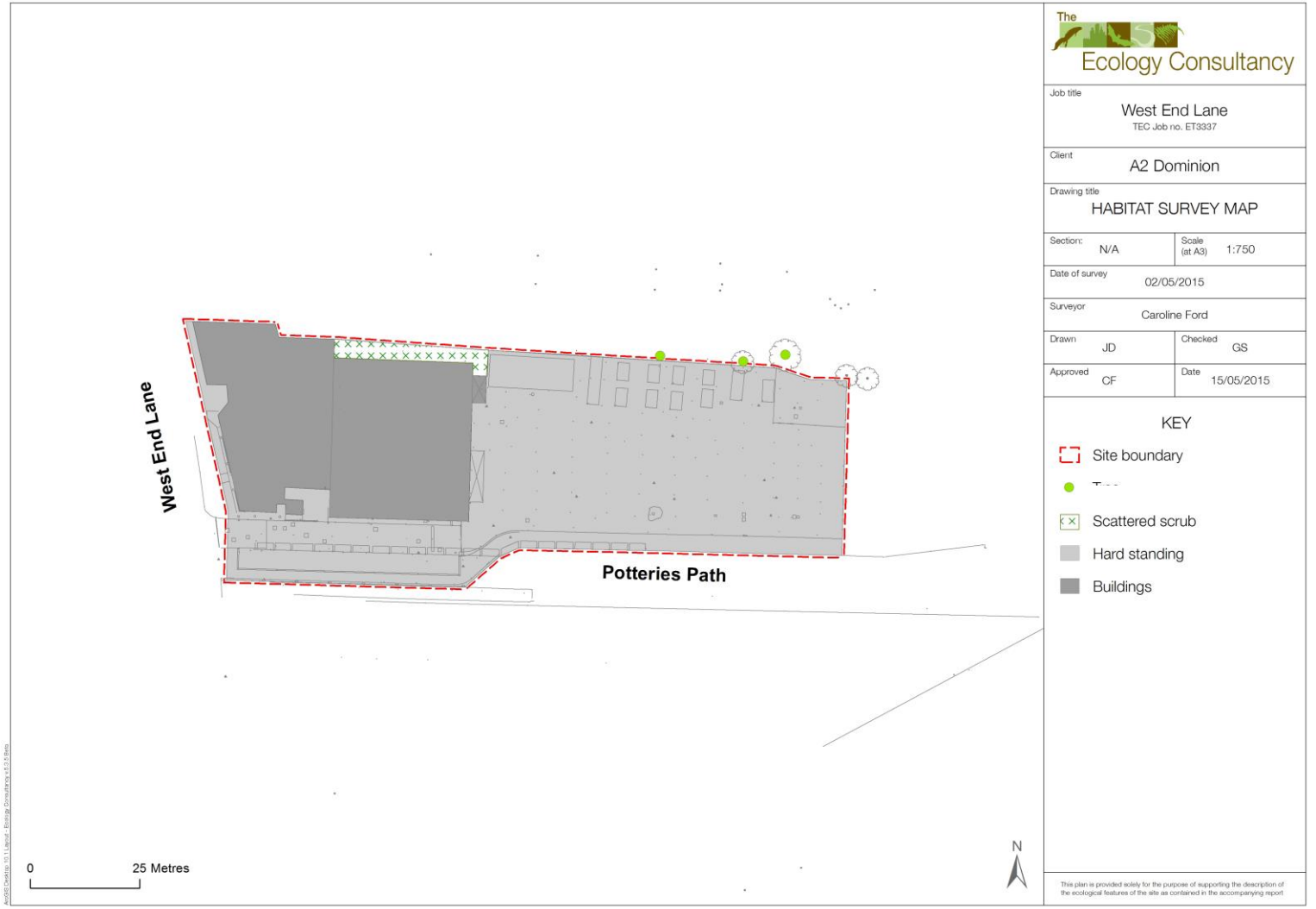
National Planning Policy Framework, Government (2012). http://planningguidance.planningportal.gov.uk/ [Accessed: 11/05/15].

Newton, J., Nicholson, B., Saunders, R., Willets, R., Williams, C. and Venables, R. (2011) *Working with Wildlife: guidance for the Construction Industry*. CIRIA, London.

Stace, C.A. (2010). *New Flora of the British Isles* (3rd Ed.). Cambridge University Press, Cambridge.

Appendix 1: Habitat Map

Figure 1: Habitat Survey Map



Appendix 2: Photographs

Photograph 1
Office block on West End Lane over commercial ground floor, west aspect.

Photograph 2
Office block on West End Lane, west aspect.

Photograph 3
Car parking adjacent to southern boundary.

Photograph 4
Builders' merchant yard, view from west.

Photograph 5
Builders' merchant yard, scattered trees overhanging northern boundary.

Photograph 6
Builders' merchant yard, introduced shrub on northern boundary wall.

Appendix 3: Plant Species List

Plant Species List for West End Lane, West Hampstead, London Borough of Camden compiled from the Preliminary Ecological Assessment habitat survey carried out on the 2 May 2015.

Scientific nomenclature follows Stace (2010) for vascular plant species. Vascular plant common names follow the Botanical Society of the British Isles 2003 list, published on its web site, www.bsbi.org.uk. 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 Phase 1 Report.

Abundance was estimated using the DAFOR scale as follows:
D = dominant, A = abundant, F = frequent, O = occasional, R = rare, LD =locally dominant e=edge only, p=planted, s=seedling or sucker, T=tree, y = young tree, s = shrub.

Latin Name	Common name	Abundance	Qualifiers
Acer pseudoplatanus	Sycamore	A	T
Betula pendula	Weeping birch	R	T
Buddleja davidii	Butterfly bush	F	
Clematis vitalba	Clematis	A	
Hedera helix	Ivy	D	
Malus sp.	Apple	R	T
Pyrus domestica	Pear	R	T
Rhus typhina	Stag's horn sumach	R	T
Robinia pseudoacacia	Golden false acacia	R	T
Rosa sp.	Rose	O	p
Rubus fruticosus agg.	Bramble	D	
Tilia sp.	Lime	O	T

Appendix 4: 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[13] 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

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

development activities, include herpetofauna (amphibians and reptiles), badger, bats, birds, dormouse, invasive plant species, otter, plants, red squirrel, water vole and white clawed crayfish.

Explanatory notes relating to species protected under The Conservation of Habitats and Species Regulations 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.

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 nesting season which typically runs from March to August[14]. 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 nesting 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.

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

[14] 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.

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 nautical miles 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.' 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 REGIONAL PLANNING POLICY

The London Plan

The London Plan: The Mayor's Spatial Strategy for Greater London (GLA, 2011) including published Revised Early Minor Alterations to the London Plan (REMA) (GLA, 2013) and Further Alterations to the London Plan (FALP) (GLA, 2015) deal with matters of strategic importance for spatial development in London. Chapter 2 London's Places and Chapter 7 London's Living Places and Spaces sets out the policies that impact amongst other factors the quality and function of green infrastructure and biodiversity In London. In particular, Policy 2.18 - Green

Infrastructure: the multifunctional network of green and open spaces and Policy 7.19 Biodiversity and Access to Nature.

Policy 2.18 (Green Infrastructure) of the London Plan

Policy 2.18 commits the Mayor to develop a multifunctional network of green infrastructure that secures benefits to biodiversity and commits the Council to making planning decisions that ensure development incorporates green infrastructure links.

In the case of this proposal, planting for the site includes appropriate native tree and scrub planting which will grade into and connect with existing planting which currently form part of the Lea Valley SMI. This will enhance the local green infrastructure and therefore does not contravene this policy.

Policy 7.19 (Biodiversity and Access to Nature) of the London Plan

This policy commits the Mayor to support The Mayor's Biodiversity Strategy and commits the Council to making planning decisions to ensure development makes a positive contribution to biodiversity, through achieving Biodiversity Action Plan (BAP) targets and having due regard to European or nationally designated sites and protected species. This policy also commits the Council to making planning decisions to ensure 'strong protection' to SMIs, with due regard to the mitigation hierarchy.

In the case of the proposal, due regard to protected species as per the recommendations in the Preliminary Ecological Appraisal[1], will be sought, at the time of the construction phase. The Landscape Design Report[2] allows for new planting to develop into habitat that enhances the Lea Valley SMI and provides adequate protection during the establishment of new planting consequently, demonstrating that the proposal will protect, enhance the biodiversity of the site, and thereby does not contravene this policy.

Connecting with London's Nature: The Mayor's Biodiversity Strategy

Connecting with London's Nature: The Mayor's Biodiversity Strategy (GLA, 2002) includes a number of policies and proposals for protecting green spaces and important species that are relevant to the site.

Proposal 3: Conserving species through the planning system states that:

''The Mayor will and boroughs should resist development that would have a significant adverse impact on the population or conservation status of protected species or priority species.

Proposal 6: Greening new developments states that:

"The Mayor will and boroughs should ensure that new development capitalises on opportunities to create, manage and enhance wildlife habitat and natural landscape. Priority should be given to sites within or near to areas deficient in accessible wildlife sites, areas of regeneration, and adjacent to existing wildlife sites".

Living Roofs and Walls; Technical Report: Supporting London Plan Policy

A recent technical report (GLA, 2008) on living roofs and walls has been published to support The London Plan (GLA, 2011) and the new London BAP habitat – Built Structures. In outline, it includes the following key policies;

''The major will and boroughs should expect major developments to incorporate living roofs and walls where feasible and reflect this principle in LDF policies. It is expected that this will include roof and wall planting that delivers as many of these objectives as possible;

- Accessible roof space
- Adapting to and mitigating climate change
- Sustainable urban drainage
- Enhancing biodiversity
- Improved appearance

Boroughs should also encourage the use of living in smaller developments and extensions where the opportunity arises''.

E 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.

The Ecology Consultancy is part of the Temple Group.

Experience and quality that make a difference

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