The Ecology Consultancy

St Pancras Commercial Centre
Ecology Report August 2019

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St Pancras Commercial Centre, Camden / Ecology Report for BREEAM 2018 / Report for

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St Pancras Commercial Centre, Camden

Ecology Report in support of BREEAM 2018 New Construction

Report for: Camden Property Holdings Limited

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Summary of key issues

The Ecology Consultancy was commissioned to carry out a Phase 1 habitat survey, protected species assessment and ecological evaluation of land at the St Pancras Commercial Centre, Camden**,** in support of the Land Use and Ecology section (LE02-LE05) of a BREEAM New Construction (2018) Assessment. The main findings are as follows:

- The site does not form part of any statutory or non-statutory nature conservation site.
- The site was dominated by buildings and hardstanding with smaller areas of introduced shrub, amenity grassland, and mostly immature and non-native species of scattered trees. All habitats are of low ecological value.
- **Breeding birds** – The buildings, introduced shrub, and scattered trees on site have potential to support breeding birds. Where these features are to be affected, they should be removed outside of the breeding bird season (March to August, inclusive) or cleared under the supervision of an ecologist.
- The baseline ecological value of the site was calculated at 1429.34 Biodiversity Units.
- Recommendations to enhance the biodiversity value of the site in accordance with 'LE04 Change and Enhancement of Ecological Value' comprise installation of a biodiverse green roof, planting schemes of value to wildlife, good horticultural practice, and bird nesting opportunities.
- To maximise credits the following measures should be undertaken:
    - The report should be shared with the project team immediately after issue, to inform site preparation, design and construction works. Any queries should be discussed with the ecologist.
    - This report will be updated at the design-freeze stage to include a full assessment of the credits achieved under BREEAM 2018: LE02-LE05. Currently, only an estimate of credits can be taken.
    - The project team lead should read and comply with LE02: criteria 5, LE03: criteria 2 & 4, LE04: criteria 3, and LE05: criteria 3, as these criteria are not covered by the ecology report and assessment (see Appendix 5).
    - All relevant legislation regarding nesting birds is complied with through the use of mitigation measures, as outlined above (see section 4.7-4.11).

- All recommendations for ecological enhancement are incorporated into the landscape design, as detailed above (see section 4.12-4.18).
- Area of biodiverse roof is maximised where possible, in order to maximise the net gain in biodiversity units for the site (LE04).
- Preparation of a landscape and ecology management plan

- Based on initial estimations this development is likely to achieve at least 9/11 credits, if all recommendations detailed in Section 4 of this report are adhered to. Once the project has reached the design freeze stage, this report will be updated to include a full assessment of the development against LE02-5 of BREEAM 2018.

1 Introduction

BACKGROUND TO COMMISSION

1.1 The Ecology Consultancy was commissioned by Camden Property Holdings Limited, to carry out an ecology survey in order to support a BREEAM New Construction (2018) ecology assessment (BRE, 2018) for the proposed development of the site known as St Pancras Commercial Centre, within the London Borough of Camden.

SCOPE OF THE REPORT

1.2 The aim of this report is to provide the current baseline ecological information of the site in order to support a BREEAM 2018 New Construction Assessment. This baseline will also 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 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 report is based on the following information sources:

- a desk study of the site and land within a 1 kilometre (km) surrounding radius;
- a Phase 1 habitat survey (JNCC, 2010) of the site to identify and map the habitats present;
- a habitat condition assessment of all recorded habitats;
- a protected species assessment of the site to identify features with potential to support legally protected species;
- a calculation of the existing biodiversity value of the site in biodiversity units; and,
- an evaluation of the site's importance for nature conservation.

1.4 This report has been prepared with reference to best practice guidance published by the Chartered Institute for Ecology and Environmental Management (CIEEM, 2018) 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 was conducted by John Myerscough BSc MSc, an ecologist with over three years' experience, who is competent in carrying out Phase 1 habitat surveys and protected species assessments. The report was reviewed by Sasha Dodsworth BSc, MSc, MCIEEM. Sasha has over 11 years' experience of surveying and project managing sites with a wide range of ecological constraints and qualifies as a SQE as defined under the BREEAM guidance**.**

SITE CONTEXT AND STATUS

1.6 The site is approximately 0.5 hectares (ha) in size and is centred on Ordnance Survey National Grid reference TQ 29369 83953. The site is located 450 metres (m) east of Camden Town Station and is bordered by Georgiana Street to the north, St Pancras Way to the east, Pratt Street to the south and Royal College Street to the west. The wider surrounding area is largely urban and comprises residential areas to the north and west and industrial areas to the south. Regents Canal, part of the London's Canals Site of Metropolitan Importance for Nature Conservation (SMINC) is located 60m to the east and St Pancras Gardens Site of Borough Importance for Nature Conservation (SBINC) is located 550m to the south.

DEVELOPMENT

1.7 The current development proposal is for the demolition and clearance of the existing site and the creation of a new mixed-use residential and commercial development, with accessible roof terraces.

RELEVANT LEGISLATION

1.8 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 2017 (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.

2 Methodology

DESK STUDY

2.1 The following data sources were reviewed to provide information on the location of statutory designated sites[1], and, non-statutory designated sites[2], that have been recorded within a 1km radius of the site:

- iGiGL, for publicly accessible information on non-statutory sites;
- MAGIC (http://www.magic.gov.uk/) - the Government's on-line mapping service; and
- Ordnance Survey mapping and publicly available aerial photography.

HABITAT SURVEY

2.2 A habitat survey of the site was carried out on 22 November 2018 in clear and dry conditions. 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 for Desktop software. Habitats were also assessed against descriptions of Habitat of Principal Importance as set-out by the JNCC (BRIG, 2008)[3].

2.3 All recorded habitats, besides buildings and hardstanding, were assessed against criteria within the Farm Environmental Plan (FEP) to determine their condition (Natural England, 2010). Where habitats were not covered under the FEP, the habitats were assessed against the set of commonly used habitat condition assessment criteria outlined in the Guidance Note 36 (GN36) document (BRE, 2018a).

2.4 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.

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 Data required to confirm that certain habitats (including rivers and ponds) meet criteria for Habitats of Principal 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

2.5 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.

2.6 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 the habitat plan are indicative only.

2.7 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

2.8 The suitability of the site for legally protected species was assessed on the basis of relevant desk study records[4] 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.

2.9 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); hazel dormouse (English Nature, 2006); great crested newt (Langton *et. al.* 2001); otter (Chanin, 2003); reptiles (Gent and Gibson, 2003); and water vole (Strachan *et al.,* 2011).

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

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

	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.

2.10 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.

2.11 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.

BIODIVERSITY UNIT VALUE CALCULATION

2.12 The ecological baseline of the site, measured in biodiversity units, will be calculated using the methodology set out in Guidance Note 36 (BRE, 2018a). The calculator itself will be presented as a separate document to accompany this report (The Ecology Consultancy, 2018). This calculation will take into account the area, distinctiveness and condition of existing habitats on site.

SITE EVALUATION

2.13 The site's ecological value has been evaluated broadly following guidance issued by 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.

2.14 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.

2.15 This evaluation will contribute toward the scoring of credits under *BREEAM 2018: Le02 – Identifying and understanding the risks and opportunities for the project*.

BREEAM UK New Construction 2018

2.16 The ecological baseline detailed in this report will be used to support an assessment of the proposed development with respect to the following components of the BREEAM New Construction (2018) Assessment methodology (BRE, 2018b):

- *LE02 - Identifying and understanding the risks and opportunities for the project (2 available credit);*
- *LE03 - Managing negative impacts on ecology (3 available credits);*
- *LE04 - Change and enhancement of ecological value (4 available credits); and,*
- *LE05 - Long term ecological management and maintenance (2 available credits)*

2.17 A preliminary indication of achievable credits has been assessed, based on the above methodology. However, the full assessment will be completed at a later date following the design freeze of the development, so the calculation of change in the biodiversity value of the site can be calculated, and, necessary evidence can be collated.

DATA VALIDITY AND LIMITATIONS

2.18 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.
- A full desk study or data search from the local biological records centre (Greenspace Information for Greater London) for statutory and non-statutory sites and protected species within 1km of the site was not commissioned. However, on-line mapping resources (MAGIC, 2018; iGiGL, 2018), have been used to identify any statutory and publicly accessible non-statutory designated sites close to the development area.

- The ecological evaluation is preliminary and may change subject to the findings of further ecological surveys (should these be required).
- The Phase 1 habitat survey does not constitute a full botanical survey or provide accurate mapping of invasive plant species.
- Ecological survey data is typically valid for two years unless otherwise specified.

2.19 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 site is not subject to any statutory nature conservation designations. One Statutory site is present within 1km of the site, comprising Camley Street Nature Park Local Nature Reserve (LNR), located 700m south of the site (see Table 3.1).

3.2 The site lies within the Impact Risk Zone (IRZ) of Hampstead Heath Woods Site of Special Scientific Interest (SSSI)**,** located 3.7km north of the site. IRZs are intended as a tool for local planning authorities to identify when specific types of development may require consultation with Natural England regarding their potential impact on statutory designated sites. The Proposed Development does not however fall into any of the categories where the local planning authority would need to consult with Natural England.

Table 3.1: Statutory Designated Sites

Site Name	Distance from site and orientation	Reason for designation
Camley Street Nature Park LNR	700m south	One of Britain's oldest urban ecology parks, contains a mosaic of habitats which support a wide diversity of wildlife given its inner city location. Habitats include a pond, wildflower meadow, marsh and small woodland. Species supported include, frogs, toads, newts, breeding birds and bats.

Non-statutory designated nature conservation sites

3.3 The site is not subject to any non-statutory nature conservation designations. Six non-statutory sites designated as Sites of Importance for Nature Conservation (SINCs) are present within 1km of the site, comprising three Sites of Metropolitan Importance to Nature Conservation (SMINC), one Site of Borough Importance for Nature Conservation (SBINC), and two Sites of Local Importance for Nature Conservation (SLINC) (see Table 3.2).

Table 3.2: Non-Statutory Designated Sites[5]

Site Name	Distance from site and orientation	Reason for designation
London' Canals SMINC	60m east	Part of London's canal network, supporting a wide range of aquatic plants and fish. The canals and associated habitat also support a wide range of invertebrates and breeding waterfowl, and provide a wildlife corridor.
Camley Street Nature Park SMINC	700m south	One of Britain's oldest urban ecology parks, contains a mosaic of habitats which support a wide diversity of wildlife given its inner city location. Habitats include a pond, wildflower meadow, marsh and small woodland. Species supported include, frogs, toads, newts, breeding birds and bats.
Regent's Park SMINC	990m west	Large park with a variety of habitats including mature trees, ornamental lake, small enclosed wood and an area specifically managed for wildlife. Supports a wide diversity of breeding birds and invertebrates.
St Pancras Gardens SBINC	500m south	Old churchyard with mature trees and diverse planted shrubs and hedges. Two nature areas have been established besides the railway boundary.
Rochester Terrace Gardens SLINC	600m north	Small public garden that is managed for wildlife. Several mature trees on site and native shrubs around the perimeter. The amenity grassland in the centre of the site, is rarely cut to allow wildflowers to seed.
Bingfield Park SLINC	975m east	Relatively large open space mainly consisting of amenity grassland. Some dense ornamental shrubberies are present at the eastern end, which provide habitat for common breeding birds.

Ecological Initiatives and stakeholders

3.4 No existing ecological initiatives are active in the zone of influence and no ecology-related stakeholders are likely to be impacted by the works.

PHASE 1 HABITAT SURVEY

Overview

3.5 The site largely consisted of two buildings in use as industrial units with associated hardstanding and small areas of introduced shrub, amenity grassland and scattered trees.

3.6 Phase 1 habitat types are mapped in Appendix 1, Figure 1, and a description of the species composition of each habitat is provided below.

[5] iGiGL only provides data on publicly accessible SINCs, as such, this list may not be comprehensive.

Habitat description

Buildings and hardstanding

3.7 Building 1 (B1) was a large two-storey building divided into six units. The building was constructed from a combination of brick and corrugated metal, with a flat roof clad in roofing felt. The north, west, and southern aspects of the building comprised entirely brick walls, and the eastern aspect comprised corrugated metal frontages and glass windows. The building was in a good state of repair (Appendix 2, Photograph 1).

3.8 Building 2 (B2) was a large two-storey building of identical construction to building B1 and was also divided into six business units. The north, east, and southern aspects of the building comprised entirely brick walls, and the western aspect comprised corrugated metal frontages and glass windows. The building was in a good state of repair.

3.9 A large area of concrete hardstanding was present in the centre of the site, between the two buildings, in use as a car park. Hardstanding footpaths were also present around the boundaries of the site. All areas of hardstanding were in constant use and largely devoid of any vegetation.

Introduced shrub

3.10 Two small areas of introduced shrub were present in the south of the site, adjacent to the buildings. Species included cherry laurel, butterfly bush, and laurustinus (Appendix 2, Photograph 2). Existing management of this habitat likely comprised annual or biannual trimming of the vegetation to maintain a neat aesthetic.

Scattered trees

3.11 Scattered trees were present lining the hardstanding footpaths at the northern, western and southern site boundaries. These were mostly juvenile, non-native species, although one semi-mature cherry was present in the south of the site (Appendix 2, Photograph 3). Species included, cherry, rowan, and a row of five sapling *photinia x fraseri 'red robin'* (Appendix 2, Photograph 4). Existing management of these tree was unclear, however, likely comprised occasional pruning as and when required.

Amenity grassland

3.12 An area of amenity grassland was present onsite to the east of building B2 (Appendix 2, Photograph 5). This was heavily managed, and short mown and was largely dominated by common bent grass with frequent wall barley and red fescue. Herbaceous species included occasional white clover, daisy, nettle, and dandelion.

CONDITION ASSESSMENT

3.13 None of the habitats on site were considered comparable to those detailed in the FEP manual. As such, the commonly used habitat condition assessment criteria was used, as per GN36 (BRE, 2018a). A breakdown of the condition of the existing site is presented in Table 3.3 below:

Table 3.3: Condition assessment[6]

Criteria	Amenity grassland	Introduced shrub	Scattered trees
Diverse age range	n/a	n/a	No
Diverse species mix	No	No	No
Diverse structure variety	n/a	No	No
Protected species present	No	Yes	Yes
None/limited presence of invasive species	Yes	Yes	Yes
None/limited damage by machinery	Yes	Yes	Yes
Criteria failed	**2**	**3**	**3**
Condition	**Poor**	**Poor**	**Poor**

3.14 No historic habitat condition data was available for the site, however, historic satellite imagery from Google Earth indicates that the habitats on site have largely remain unchanged since at least 1999. The only notable change being the removal of two trees in the south-east of the site, where the existing introduced shrub was recorded. This occurred at some time between 2017 and 2018.

BASELINE ECOLOGICAL VALUE

3.15 The ecological value of the site predevelopment was calculated to be 1429.34 Biodiversity Units (The Ecology Consultancy, 2018). The summary of these calculations is presented in Table 3.4 below:

Table 3.4: Biodiversity calculator

Habitat	Distinctiveness	Condition	Area (m^2)	Biodiversity units
Buildings and hardstanding	None	n/a	5,337.52	0
Amenity grassland	Low	Poor	579.23	1158.46

[6] Condition assessments are not applicable to buildings and hardstanding. As such this habitat is not presented in the table.

Habitat	Distinctiveness	Condition	Area (m^2)	Biodiversity units
Introduced shrub	Low	Poor	45.44	90.88
Scattered trees	Low	Poor	90.00	180
			Total	**1,429.34**

PROTECTED AND INVASIVE SPECIES ASSESSMENT

3.16 The potential for the site to support protected species has been assessed using criteria provided in Table 2.1 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 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;
- breeding birds; and
- invasive plant species.

3.17 The table also summarises relevant legislation and policies relating to protected species. Key pieces of statute are summarised in Section 1 and set-out in greater detail in Appendix 4.

Table 3.5: Protected Species Assessment

Habitat/ species	Status [7, 8]	Likelihood of occurrence
Bats	HR WCA S5 SPI LBAP	The data search returned no records for European Protected Species Mitigation (EPSM) licences for bats within 1km of the site. The site is located within an urbanised location and is subject to high levels of lighting through security lights on site and adjacent street lights. Regent's Canal SMINC is located 60m to the east of the site, although the site is separated from this and other suitable off-site commuting habitat by well-lit, unvegetated roads and buildings. As such, it is considered unlikely that commuting bats would make use of the site. **Buildings - Negligible**: Building B1 and B2 on site were in good condition and well-sealed throughout, with no features which had potential to provide access for bats. The buildings were also in constant use during the day and well-lit at night from security flood-lights and street lights. **Trees - Negligible**: No features of value to roosting bats such as, rot holes, splits or flaking bark, were identified on any of the surveyed trees on site. **As the site has negligible potential to support roosting bats, they are not considered further in this report.**
Breeding birds	WCA S5 SPI LBAP BoCC	**High**: An old birds' nest was identified within a tree along the southern site boundary during the habitat survey. The other scattered trees, introduced shrub and flat roofs of the buildings on site were considered to have potential to support nesting bird species, including Species of Principle Importance and London BAP species such as dunnock, common starling, and house sparrow. All of which are BoCC Red List species, with the exception of dunnock which is Amber List. **As habitat suitable for breeding birds will be removed as part of the proposed development they are considered further in Section 4 of this report.**
Invasive species	WCA S9	**Negligible:** There were no invasive species recorded on site during the habitat survey. **There is a negligible potential for invasive species to be present on site, therefore, they are not considered further in this report.**

[7] The following abbreviations have been used to signify the legislation regarding different species: HR = Conservation of Habitats and Species Regulations 2017 (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; WMA = Wild Mammals (Protection) Act, 1996.

[8] 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).

NATURE CONSERVATION EVALUATION

3.18 The site comprised a limited range of commonly occurring and widespread habitats which are considered to be of value within the site only. The semi-mature trees on site are of significant value to wildlife within the urban environment. They provide important ecosystem services including, reducing the urban heat island effect and flood alleviation. However, given the age of the trees on site and that most were non-native species, and that other mature street trees of greater value occur in the local area, the scattered trees are considered to be of site value and therefore considered of low ecological value.

3.19 The habitats on site were suitable for a range of protected and notable species, including Species of Principal Importance and London BAP species, such as, house sparrow and other widespread but declining species of bird which are also species of conservation concern[9].

3.20 If present, any populations of these species are unlikely to exceed local value. Measures to mitigate potential impacts on them are recommended. It is considered unlikely that the site would support any other protected or rare species, or diverse assemblages or large populations of these species.

[9] Birds of Conservation Concern - amber list / red list (Eaton *et al*., 2015);

4 Potential Impacts and Recommendations

4.1 This section summarises the potential impacts on habitats and protected and notable species that may be present at the 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 breeding birds is present – measures must be taken to avoid killing birds or destroying their nests; and
- a range of measures should be undertaken to satisfy the requirement for ecological enhancement included in *LE04 – Change and Enhancement of Ecological Value,* within the BREEAM 2018 assessment.

CONSTRAINTS AND MITIGATION/COMPENSATION

Habitats

4.3 Approximately 625m^2 of amenity grassland and introduced shrub, and 14 scattered trees will be removed as a result of the Proposed Development. With the exception of the semi-mature scattered trees, these habitats are common and widespread in the locality and no particular constraints were identified in relation to the intrinsic value of the habitats present.

4.4 Working under the principle of 'net-gain' as supported by planning policy, any habitats to be removed should be compensated for through soft landscaping proposals including green roofs and planting schemes of recognised value to wildlife.

4.5 The current landscape proposals have not yet been finalised for the site. Recommendations are given below (4.16 – 4.21) which will ensure there will be a net-gain in biodiversity on site. This would help to fulfil the requirements for *LE03 - Managing Negative Impacts on Ecology*; and, *LE04 – Change and Enhancement of Ecological Value.*

Environmental best practice

4.6 Best environmental practice measures which should be implemented include:

- adherence to best construction practice including CIRIA guidance (Connolly and Charles, 2005);
- The protection of retained trees in accordance with British Standards Institution (2012) guidelines; and
- It is recommended that the storage of all materials and vehicles and the installation of a compound area would be confined to existing areas of hardstanding.

Breeding birds

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

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

4.9 Where this is not possible, a check for nesting birds up to 48 hours prior to vegetation clearance must be undertaken by an experienced ecologist and if any nests are found, the nests must be protected until such time as the young have left the nest, as confirmed by an ecologist. If any nesting birds are found at any time during clearance works, works within the immediate surroundings of the nests must stop immediately and an ecologist consulted.

Other protected species

4.10 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

4.11 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
Birds	Nesting bird check	If vegetation clearance is carried out between September and the end of February, no survey is required. Otherwise, individual surveys are required up to 48 hours prior to vegetation clearance works (Newton et al., 2011)

OPPORTUNITIES FOR ECOLOGICAL ENHANCEMENT

4.12 Inclusion of ecological enhancements in development projects, is required in order to satisfy certain BREEAM 2018 Credits within *LE04 – Change and Enhancement of Ecological Value*. 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

4.13 It is recommended that the development be enhanced through the addition of areas of biodiverse roof on the proposed building. To demonstrate the highest feasible and viable sustainability standards in line with London Plan Policies (GLA 2016) it is recommended that a specification for a biodiverse roof be drawn up by a company with a proven track record in delivering these features in London. Any biodiverse green roof should support at least 25 plant species.

4.14 A biodiverse green roof would provide additional benefits such as protecting and prolonging the life of the roof membrane, reducing building energy use by insulating the building in winter and keeping it cooler in summer, providing a SuDS function by reducing storm water run-off from the roof, reducing the urban heat island effect and local air/noise pollution.

4.15 The green roof should follow UK standards (GRO, 2014) and include additional habitat features such as deadwood and varying substrate depths. This will provide good habitat for a range of insects and birds including London Biodiversity Action Plan (BAP) species.

Native scrub and tree planting

4.16 It is recommended that native tree and scrub species are included within any landscaping to enhance the site. It is recommended wildlife planting should be integral to any soft landscape plans and should include native species and/or species of recognised wildlife value[10]. The use of nectar-rich and berry producing plants will attract a wider range of insects, birds and mammals and continue to accommodate those already utilising the site. Where possible, larger shrubs/trees should be under-planted to create greater

[10] For example The Royal Horticultural Society (RHS) Perfect for Pollinators Scheme https://www.rhs.org.uk/science/conservation-biodiversity/wildlife/encourage-wildlife-to-your-garden/plants-for-pollinators and the joint RHS/Wildlife Trust's Gardening With Wildlife In Mind Database http://www.joyofplants.com/wildlife/home.php

structure and cover for wildlife. The use of block planting of single species should be avoided in favour of a higher diversity of plant types per square metre.

Good horticultural practice

4.17 Good horticultural practice should be utilised, including the use of peat-free composts, mulches and soil conditioners, native plants with local provenance and avoidance of the use of invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended).

Provision of bird nesting opportunities

4.18 Nest boxes suitable to support house sparrow should be mounted at roof level on the proposed buildings, in close proximity to the biodiverse roofs. Woodcrete boxes are recommended as they are long lasting compared to wooden boxes and insulate occupants from extremes of temperature and condensation. These should be secured using galvanised nails/screws and should be accessible for maintenance

BREEAM New Construction 2018

4.19 This report will be updated at the design-freeze stage to include a full assessment of the credits achieved under BREEAM 2018: LE02-LE05. Currently, only an estimate of credits can be taken.

4.20 A full list of relevant criteria for achieving these credits is presented in Appendix 5 of this report.

4.21 To maximise credits the following measures should be undertaken:

- This report should be shared with the project team immediately after issue, to inform site preparation, design and construction works. Any queries should be discussed with the ecologist.
- The project team lead should read and comply with LE02: criteria 5, LE03: criteria 2 & 4, LE04: criteria 3, and LE05: criteria 3, as these criteria are not covered by the ecology report and assessment (see appendix 5).
- All relevant legislation in regard to nesting birds is complied with through the use of further surveys and mitigation measures, as outlined above (see section 4.7-4.11).
- All recommendations for ecological enhancement are incorporated into the landscape design, as detailed above (see section 4.12-4.18).

- Area of biodiverse roofs is maximised where possible, in order to maximise the net gain in biodiversity units for the site (LE04).
- Preparation of a landscape and ecology management plan.

4.22 On the basis of the above measures being undertaken the scheme is likely to achieve the following credits:

Summary of available BREEAM credits

Land-use and Ecology Section	Credit Available	Credit Achievable
LE02 – Identifying and understanding the risks and opportunities for the project	2	2
LE03 – Managing negative impacts on ecology	3	3
LE04- Change and enhancement of ecological value	4	2-4[11]
LE05 – Long term ecological management and maintenance	2	2
TOTAL	**11**	**9-11**

[11] The number of credits achieved under Le04 is based on the percentage increase in Biodiversity Units. This will be determined once proposed areas of landscaping has been finalised and input into the Biodiversity Calculator.

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Appendix 1: Habitat Map

Figure 1: Habitat Survey Map

Appendix 2: Photographs

Photograph 1
Western aspect of B1 and eastern aspect of B2, with area of hardstanding in use as a car park in the centre of the site.

Photograph 2
Introduced shrub to the south of building B2.

Photograph 3
Row of scattered trees at the southern site boundary with an old birds nest present.

Photograph 4
Row of five sapling *photinia x fraseri 'red robin'* along the northern site boundary.

Photograph 5
Eastern aspect of building B2 and the area of amenity grassland in the east of the site.

Appendix 3: Plant Species List

Plant Species List for St Pancras Commercial Centre, Camden compiled from Phase 1 habitat survey carried out on 22 November 2018.

Scientific nomenclature and common names for vascular plants follow Stace (2010). 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

Latin Name	Common name	Abundance	Qualifiers
Achillea millefolium	Yarrow	R	
Bellis perennis	Daisy	O	
Buddleja davidii	Buddleia	LF	
Festuca rubra	Red fescue	F	
Geranium molle	Dove's-foot crane's-bill	R	
Hordeum murinum	Wall barley	F	
Lolium perenne	Perennial rye-grass	D	
Malva sylvestris	Common mallow	R	
Medicago lupulina	Black medick	O	
photinia x fraseri 'red robin'	-	F	t
Prunella vulgaris	Selfheal	R	
Prunus laurocerasus	Cherry laurel	O	p s
Prunus sp.	Cherry	R	p y
Sorbus aucuparia	Rowan	R	t
Stellaria media	Common chickweed	O	
Taraxacum sp.	Dandelion	O	
Trifolium repens	White clover	O	
Urtica dioica	Common nettle	R	e
Viburnum tinus	Laurustinus	D	c

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[12] 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 2017 (as amended) (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended)) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) 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,

[12] 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 2017 (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 2017 (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 2017(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

  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.

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 of a local population.

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

[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.

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 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 2017 (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 2017 (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 REGIONAL AND LOCAL BAPS

Many local authorities in the UK have also produced a local Biodiversity Action Plan (LBAP) at the County or District level. The London Biodiversity Action Plan is based on the UK list of Species and Habitats of Principal Importance and contains 214 species and 15 habitats.

Appendix 5: BREEAM New Construction 2018 Assessment Criteria[14]

[14] The following guidance is taken from the BREEAM New Construction 2018 (UK) Technical Manual.

LE02 – IDENTIFYING AND UNDERSTANDING THE RISKS AND OPPORTUNITIES FOR THE PROJECT

Up to two credits (plus one exemplary credit) are available for determining the ecological baseline and zone of influence of the site and identifying the risks and opportunities for achieving optimum outcomes.

Prerequisite – Assessment route selection

As a prerequisite to achieving any credits under LE02 the following must be carried out:

1. An assessment route (see Definitions) for the project has been determined using BREEAM Guidance Note GN34 BREEAM Ecological Risk Evaluation Checklist.

2. The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.

One credit - Survey and evaluation

3. A suitably Qualified Ecologist (SQE) is appointed at a project stage that ensures early involvement in site configuration and, where necessary, can influence strategic planning decisions.

4. Prior to the completion of the Preparation and Brief project stage, an appropriate level of survey and evaluation has been carried out to determine the ecological baseline of the site, taking account of the zone of influence to establish:
    a. Current and potential ecological value and condition of the site, and related areas within the zone of influence.
    b. Direct and indirect risks to current ecological value.
    c. Capacity and feasibility for enhancement of the ecological value of the site and, where relevant, areas within the zone of influence.

5. Data is collated and shared with the project team to inform the site preparation, design and construction works.

One credit – Determining the ecological outcomes for the site

6. Criteria 3-5 have been achieved.

7. During Concept Design, the project team liaise and collaborate with representative stakeholders to identify the optimal ecological outcome for the site.

8. The ecological outcome for the site is determined by identifying, appraising and selecting specific solutions and measures. The solutions and measures must be identified sufficiently early in the project to influence key project planning decisions and must be done in accordance with the following hierarchy of action, which is dependent on the route being used:

    a. Avoidance

    b. Protection

    c. Reduction or limitation of negative impacts

    d. On site compensation and

    e. Enhancement, considering the capacity and feasibility within the site, or where viable, off-site.

9. The optimal ecological outcome for the site is selected after liaising with representative stakeholders and the project team.

Exemplary credit: Determining the ecological outcome for the site (sustainability related activities)

The following is required in order to achieve one exemplary performance credit:

10. Achieve criteria 7-9 above.

11. When determining the optimal ecological outcome for the site consider, in addition to those outlined in criteria 7-9 above, the wider site sustainability-related activities and the potential for ecosystem service related benefits. The following are considered minimum requirements for consideration:

    Landscape:

    a. Landscape design

    b. Heritage and local character

    c. Green Infrastructure

Health and wellbeing:

a. Recreational space (including growing space, community agriculture or horticultural and allotment activities)
b. Water quality measures
c. Noise mitigation measures
d. Air quality control measures
e. Light pollution control measures

Resilience:

a. Climate change mitigation
b. Management of surface water run-off
c. Flood risk management
d. Climate-sensitive urban design (heat island effect, thermal mass, shading, biotic cooling etc.)

Infrastructure:

a. Maximising the benefits of green infrastructure and optimising alignment with existing infrastructure on the site and the zone of influence.

Community and end user involvement:

a. Life cycle costing and service life planning (where targeted under Man 02).

12. Achieve the credits of the assessment issues outlined below:
    a. Hea 07 Safe and healthy surroundings - Both credits
    b. Pol 03 Flood and surface water management - Achieve credits for 'Surface water run-off' and 'Minimising watercourse pollution'
    c. Pol 05 Reduction of noise pollution

LE03 - MANAGING NEGATIVE IMPACTS ON ECOLOGY

Up to three credits are available for avoiding, or limiting as far as possible, negative impacts on the ecology of the site and its zone of influence arising as a result of the project.

Prerequisite

1. As a prerequisite to achieving any credits under LE03, all credits within LE02 must be achieved.

One credit - Planning, liaison, implementation and roles and responsibilities

2. Roles and responsibilities for managing negative impacts on the ecology are clearly defined and allocated to support successful delivery of project outcomes at an early enough stage to influence the Preparation and Brief or Concept Design.

3. The potential impact of site preparation and construction works on ecology are identified at an early project stage to optimise benefits and outputs.

4. The project team, liaising and collaborating with representative stakeholders and, taking into consideration data collated and shared, have proposed solutions and selected measures to be implemented during site preparation and construction works.

Up to two credits – Managing negative impacts of the project

5. Criteria 2-4 have been achieved.

6. Negative impacts from site preparation and construction works have been managed according to the mitigation hierarchy; and, either:
    a. No net loss of ecological value has occurred (two credits); or,
    b. The loss of ecological value has been minimised (1 credit).

LE04 – CHANGE AND ENHANCEMENT OF ECOLOGICAL VALUE

Up to four credits are available for enhancing the ecological value of the site and areas within its zone of influence in support of local, regional and national priorities.

Prerequisite

1. Criteria 2 and 3 under LE03 must be achieved.
2. The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.

One credit – Liaison, implementation and data collation

3. The project team, liaising and collaborating with representative stakeholders and taking into consideration data collated and shared, have implemented the solutions and measures selected in a way that enhances ecological value in the following order:
    a. On site, and where this is not feasible,
    b. Off site within the zone of influence.

4. Data collated are provided to the local environmental records centres nearest to, or relevant for, the site.

Up to three credits – Change and enhancement of ecology

5. Up to three credits are awarded based on the calculation of the change in ecological value occurring as a result of the project. This must be calculated in accordance with the process set out in *GN36 - BREEAM, CEEQUAL and HQM Ecology Calculation Methodology – Route 2*. Credits are awarded as follows:
    a. Minimising loss of ecological value (**1 credit**: 75-94%)
    b. No net loss of ecological value (**2 credits**: 95-104%)
    c. Net gain of ecological value (**3 credits**: 105-109%)
    d. Significant net gain of ecological value (**3 credits + exemplary credit** >110%)

LE05 – ECOLOGICAL MANAGEMENT AND MAINTENANCE

Up to two credits are available for securing ongoing monitoring, management and maintenance of the site and, its habitats ecological features to ensure intended outcomes are realised for the long term.

Prerequisite

1. The client or contractor confirms compliance is monitored against all relevant UK and EU or international legislation relating to the ecology of the site.

2. Criteria 2 and 3 under LE03 must be achieved and at least one credit under LE04 has been awarded.

One credit – Planning liaison, data, monitoring and review management and maintenance

3. The project team liaise and collaborate with representative stakeholders, taking into consideration data collated and shared, on solutions and measures implemented to:
    a. Monitor and review the effectiveness with which the plans for LE 03 and LE 04 are implemented.
    b. Develop and review management and maintenance solutions, actions or measures.

4. In support of the above and to help ensure their continued relevance over the period of the project the following should be considered:
    a. Monitoring and reporting of the ecological outcomes for site implemented at the design and construction stage
    b. Monitoring and reporting of outcomes and successes from the project
    c. Arrangements for the ongoing management of landscape and habitat connected to the project (on and, where relevant, off site)
    d. Maintaining the ecological value of the site and its relationship or connection to its zone of influence
    e. Maintaining the site in line with any sustainability linked activities, e.g. ecosystem benefits (LE02)
    f. Remedial or other management actions are carried out which relate to those identified in LE02, LE03 and LE04.

5. As part of the tenant or building owner information supplied, include a section on Ecology and Biodiversity to inform the owner or occupant of local ecological features, value and biodiversity on or near the site.

6. The landscape and management plan or similar is updated as appropriate to support maintenance of the ecological value of the site.

One credit – Landscape and ecology management plan (or similar) development

7. Landscape and ecology management plan, or equivalent, is developed in accordance with BS 42020:2013 Section 11.1, covering as a minimum, the first five years after project completion and includes:

a. Actions and responsibilities, prior to handover, to give to relevant individuals

b. The ecological value and condition of the site over the development life

c. Identification of opportunities for ongoing alignment with activities external to the development project and which supports the aims of BREEAM's Strategic Ecology Framework

d. Identification and guidance to trigger appropriate remedial actions to address previously unforeseen impacts

e. Clearly defined and allocated roles and responsibilities.

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The Ecology Consultancy is part of the Temple Group.

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