Greengage

146-150 Royal College Street, Hartdixon
Preliminary Ecological Appraisal, April 2021

QA

146-150 Royal College Street – Preliminary Ecological Appraisal

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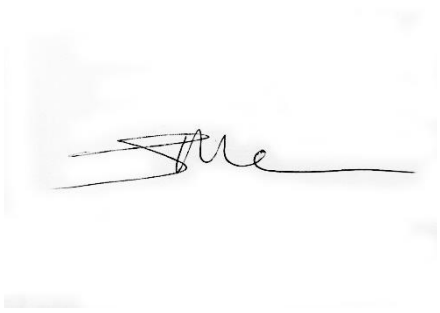
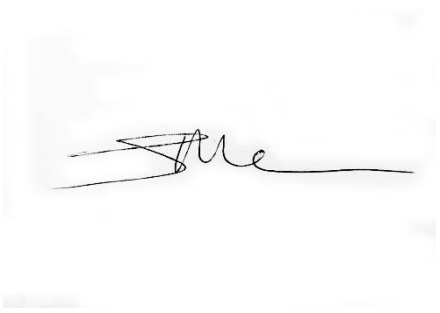
Signature:		
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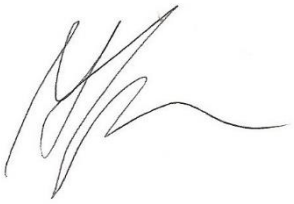
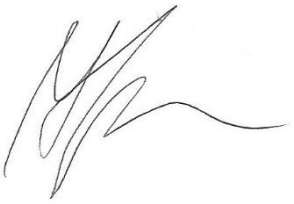
Signature:		
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1.0 EXECUTIVE SUMMARY

1.1 Greengage Environmental Ltd was commissioned to undertake a Preliminary Ecological Appraisal (PEA) by Hartdixon of a site at 146-150 Royal College Street in the London Borough of Camden.

1.2 This document is a report of this survey and has been produced to support a planning submission for the site which seeks the development of a new build office.

1.3 This survey aimed to establish the ecological value of this site and the presence/likely-absence of notable and/or legally protected species in order to inform appropriate mitigation, compensation and enhancement actions in light of proposed development works.

1.4 The survey area extends to 200m^2 and comprises hardstanding currently used as a car park for the adjoining office building to the east. There is also a strip of introduced shrub with scattered trees running along its northern boundary.

1.5 Greengage undertook an initial PEA survey in October 2019. This survey found that the site had high potential to support foraging/commuting bats and nesting birds. Given the time since the previous assessment this report presents findings of an updated site walkover.

1.6 The updated survey, undertaken on the 16th April 2021, alongside data received from a desktop study confirmed the site has potential to support the following protected/notable species:

- High potential to support foraging/commuting bats
- High potential to support nesting birds

1.7 It was also identified that the northern boundary of the site borders the Regent's Canal, a Metropolitan Site of Importance for Nature Conservation (SINC), which forms an important wildlife corridor. The canal has potentially high value for commuting bats. Accordingly, in order to identify appropriate mitigation, compensation and enhancement actions, an assessment of predicted light spill from the new development is recommended to be undertaken. If the light spill from the new development is found to result in a potential impact upon the canal, further survey work for bats may be appropriate to identify required mitigation actions.

1.8 Furthermore, given the proximity of the canal to the construction site, measures to address potential impacts upon the canal during construction and the lifetime of the development should be described within a Construction Environmental Management Plan (CEMP).

1.9 The scattered trees and introduced shrub have the potential to support breeding birds. Therefore, any planned removal of vegetation and trees should take place outside of the breeding bird season (March-August), or following confirmation of absence by a suitably qualified ecologist.

1.10 Assuming key mitigation actions summarised above are completed, alongside delivery of ecological enhancements including a biodiverse roof, wildlife friendly landscaping, integrated bird and bat boxes, invertebrate habitat features, and potentially enhanced aquatic habitat in the form of floating reedbeds then the proposals have the potential to result in gains for biodiversity.

1.11 An Ecological Management Plan (EMP) should be produced for the site which details these measures and seeks to quantify the predicted biodiversity gains as per NPPF and emerging policy requirements. The EMP and CEMP could be secured through condition.

2.0 INTRODUCTION

2.1 Greengage was commissioned to undertake a Preliminary Ecological Appraisal (PEA) by Hartdixon of a site at 146-150 Royal College Street in the London Borough of Camden.

2.2 This document is a report of this survey and has been produced to support a planning submission for the site which seeks the development of a new office building. This is an update of a previous survey undertaken in 2019 by Greengage.

2.3 This survey aimed to establish the ecological value of this site and the presence/likely-absence of notable and/or legally protected species in order to inform appropriate mitigation, compensation and enhancement actions in light of proposed development works.

SITE DESCRIPTION

2.4 The survey area extends to approximately 200m^2 and is centred on National Grid Reference TQ292840, OS Co-ordinates 529296, 184064.

2.5 The site mainly comprises hardstanding currently used as a car park for the adjoining office building to the east. There is a strip of introduced shrub and scattered trees along its northern boundary. The Regent's Canal borders the site to the north with Royal College Street to the west.

Figure 2.1 The survey site with existing boundary.

2.6 The site is located in a heavily urbanised area of inner London. The wider landscape is dominated by residential and light industrial development.

2.7 Greenspace in the wider area includes St Martin's Gardens ~200m south west, Rochester Terrace Gardens ~420m north, Camden Square Park ~490m north east, Castlehaven

Community Park ~550m north west, Regent's Park and Primrose Hill ~900m west and Hampstead Heath ~2km north.

2.8 As referenced above, the site is directly adjacent to the Regent's Canal, a Metropolitan Site of Importance for Nature Conservation (SINC), which forms an ecological corridor connecting the site to green spaces in the wider area.

3.0 METHODOLOGY

3.1 The PEA (which included an Extended Ecological Phase 1 Survey) was undertaken in accordance with guidance in the Joint Nature Conservation Committee (JNCC) (2010) Handbook for Phase 1 Habitat Survey[1] and the Chartered Institute of Ecological and Environmental Management (CIEEM) (2017) Guidelines for Preliminary Ecological Appraisal[2], in accordance with BS42020:2013: Biodiversity[3]. The overall assessment consisted of:

- Site specific biological information gained from a desktop assessment; and
- A site walkover, protected species scoping assessment and phase 1 habitat survey.

3.2 Greengage undertook the site walkover on the 16th April 2021 during sunny and clear weather conditions. Features within the site boundary and accessible features immediately bordering it were evaluated and the extent and distribution of habitats and plant communities were recorded and supplemented with target notes on areas or species requiring further commentary. Fauna using the area were recorded and areas of habitat suitable for statutorily protected species were identified where present, with an active search carried out for evidence of such use.

DESK TOP REVIEW

3.3 A review of readily available ecological information and other relevant environmental databases (included Defra's Multi-Agency Geographic Information for the Countryside (MAGIC) website[4]) was undertaken for the site and its vicinity. In addition, a biological records search from Greenspace Information for Greater London (GiGL) was reviewed to identify the location and citations of local non-statutory designated sites and presence of records for notable and protected species. This provided the overall ecological context for the site, to better inform the Phase 1 Survey.

ON SITE SURVEYS

Flora

3.4 The extent and distribution of different habitats on site were identified and mapped according to the standard Phase 1 Survey methodologies, supplemented with target notes describing the dominant botanical species and any features of interest. Any present protected plant species and invasive/non-natives were also noted. A habitat map has been produced to illustrate the results, as shown at Figure 1.

Fauna

3.5 The Phase 1 Survey specifically included assessments to identify the potential value for notable, rare and protected species at site. This involved identifying potential habitats in terms of refugia, breeding sites and foraging areas in the context of species known to be present locally and regionally.

3.6 The likelihood of occurrence is ranked as follows:

- Negligible - While presence cannot be absolutely discounted, the site includes very limited or poor-quality habitat for a particular species. The site may also be outside the known national range for a species;
- Low - On-site habitat is poor to moderate quality for a given species, with few or no information about their presence from desk top study. However, presence cannot be discounted due to the national distribution of the species or the nature of on-site and surrounding habitats;
- Moderate - The on-site habitats are of moderate quality, providing most or all of the key requirements for a species. Several factors may limit the likelihood of occurrence, habitat severance, habitat disturbance and small habitat area;
- High - On-site habitat of high quality for given species. Site is within a regional or national stronghold for that particular species with good quality surroundings and good connectivity; and
- Present - Presence confirmed for the survey itself or recent, confirmed records from information gathered through desk top study.

3.7 The species surveyed for included:

Bat Species (Chiroptera)

3.8 The site visit was undertaken in daylight and the evaluation of bat potential comprised an assessment of natural features on site that aimed to identify characteristics suitable for bat roosts, foraging and commuting. In accordance with Bat Conservation Trust's *Good Practice Guidelines*[5] and methods given in English Nature's (now Natural England) *Bat Mitigation Guidelines*[6] consideration was given to:

- The availability of access to roosts for bats;
- The presence and suitability of crevices and other places as roosts; and
- Signs of bat activity or presence.

3.9 Definite signs of bat activity were taken to be:

- The bats themselves;
- Droppings;

- Grease marks;
- Scratch marks; and
- Urine spatter.

3.10 Signs of possible bat presence were taken to be:

- Stains; and
- Moth and butterfly wings.

3.11 Features with potential as roost sites include mature trees with holes, crevices or splits (the most utilised trees being oak, ash, beech, willow and Scots pine), caves, bridges, tunnels and buildings with cracks or gaps serving as possible access points to voids or crevices.

3.12 Additionally, linear natural features such as tree lines, hedgerows and river corridors are often considered valuable for commuting and semi-natural habitats such as woodland, meadows and waterbodies can provide important foraging resources. Consideration was given to the presence of these features both immediately within and adjacent to the assessment area.

Great Crested Newt (Triturus cristatus)

3.13 An assessment was carried out to identify any potential habitats that may support great crested newt (GCN) and other native amphibians. The aquatic and terrestrial habitats required generally include small, still ponds or water bodies suitable for breeding; and woodland or grassland areas where there is optimal invertebrate prey potential.

Reptiles

3.14 The potential for reptile species on site was assessed during the walkover survey. Possible species include grass snake (*Natrix natrix*), smooth snake (*Coronella austriaca*), adder (*Vipera berus*), common and sand lizard (*Lacerta vivipara* and *L. agilis*) and slow worm (*Anguis fragilis*). These native reptile species generally require open areas with low, mixed-height vegetation, such as heathland, rough grassland, and open scrub or, in the case of grass snake, waterbody margins. Suitable well drained and frost-free areas are needed so they can survive the winter.

Water Vole (Arvicola terrestris)

3.15 Water vole potential was assessed during the walkover survey. The potential is identified by the presence of ditches, rivers, dykes and lakes with holes and runs along the banks. Latrines, footprints or piles of food can also be noted.

Otter (Lutra lutra)

3.16 Where desktop review or consultation indicates the presence of otter in a river catchment, the presence of water bodies with good cover and potential holt (den) sites would be noted. Spraint, footprints or food remains can also be noted.

Birds

3.17 During the walkover survey, the potential for breeding, wintering and migratory birds was assessed. In particular, this includes areas of trees, scrub, heathland and wetlands that could support nests for common or notable species.

Invertebrates

3.18 As part of the walkover survey the quality of invertebrate habitat and the potential for notable terrestrial and aquatic invertebrate species was considered. There is a wide variety of habitats suitable for invertebrates including wetland areas, heathland, areas of bare sandy soil, ephemeral brownfield vegetation and meadows.

Biodiversity Action Plan priority species/ Species of Principal Importance

3.19 Where consultation and desk-study indicates the presence of BAP priority species (Species of Principal Importance) not protected by statute, effort was made to establish the potential for the site to support these species.

SURVEYORS

3.20 Morgan Taylor, who reviewed this report, has a bachelors and master's degree in marine biology (MSci Hons), a Natural England CL17 Bat Survey Level 2 Class Licence (2015-7369-CLS-CLS) and CL10 Dormouse Survey Licence (2017-30817-CLS-CLS). Morgan is a Chartered Environmentalist, Full member of CIEEM and has over 10 years' experience in ecological surveying having undertaken assessments of numerous development sites of this type. He leads the Ecology team at Greengage.

3.21 Sara Morris, who undertook the PEA site visit, has an undergraduate degree in Environmental Biology (BSc Hons) and over three years of experience in ecological surveying and consultancy.

3.22 This report was written by Sara Morris and reviewed and verified by Morgan Taylor who confirms in writing (see the QA sheet at the front of this report) that the report is in line with the following:

- Represents sound industry practice;
- Reports and recommends correctly, truthfully and objectively;
- Is appropriate given the local site conditions and scope of works proposed; and

- Avoids invalid, biased and exaggerated statements.

CONSTRAINTS

3.23 The PEA was undertaken during an optimal time of year during ideal conditions by a suitably qualified ecologist. It was possible to access all areas of the site.

3.24 No significant constraints that stand to impact conclusions drawn in this report therefore presented themselves.

4.0 RESULTS

DESK TOP REVIEW

Designations

4.1 Consultations with the local biological record centres Greenspace Information for Greater London (GiGL) and the MAGIC dataset have confirmed that there are no statutory designations of national or international importance within the boundary of the site.

4.2 There are however two Local Nature Reserves (LNRs) within a 2km radius.

4.3 Records from GiGL also identified 32 non-statutory Sites of Importance for Nature Conservation (SINCs) within 2km of the site boundary. SINCs are recognised by LPAs as important wildlife sites.

4.4 Table 4.1 below gives the locations and descriptions of a selection of the nearest/most relevant local designations.

Table 4.1 Statutory and Non-Statutory Designated Sites within Search Radius

Site Name	Approximate Location	Description
Statutory Designations		
Camley Street Nature Park (LNR)	~900m south east	This site is an urban wild space containing a range of habitat examples created on former vacant land. The wildlife interest is of high local educational and social value owing to the severe deficiency of wildlife sites in Greater London. The site is primarily an educational resource and a means of increasing local community awareness of the natural environment. There is a field centre building with classroom facilities and an on-site teacher/ecologist.
Barnsbury Wood (LNR)	~1.5km east	Barnsbury Wood is a broad-leaved semi-natural woodland, with a glade comprised of semi-improved neutral grassland. The site has a good range of fungi and good populations of invertebrates and birds. It is currently used by schools; public access is restricted to informal open days. The woodland is a valuable wildlife habitat in a borough with very little mature broad-leaved woodland.
Non-Statutory		

Site Name	Approximate Location	Description
London's Canal (Regent's Canal) (SINC – Metropolitan)	Adjacent to the site	London's canals support a wide range of aquatic flora, amongst which are found a number of locally uncommon species. These include narrow-leaved water plantain (*Alisma lanceolatum*), rigid hornwort (*Ceratopyllum demersum*) and shining pondweed (*Potomageton lucens*), all species of clean, clear waters. Many waterside plants, including several London rarities, also grow on the brickwork and banks of the canal. The canals also support an important invertebrate fauna (including several species of dragon/damselflies), a diverse fish community, and breeding waterfowl. London's network of canals fulfill an important function in allowing nature into heavily built-up environments. The towpath and associated areas of waste ground, especially in East London, support a number of uncommon species of disturbed ground. The whole of the Grand Union Canal system in London, including the Regent's and Hertford Union Canals, is included in this single Metropolitan site.
Regent's Park (SINC – Metropolitan)	~2km west	One of the most charismatic and varied of the central Royal Parks, the Regent's is particularly important for its wide variety of breeding birds. The park's size and range of habitats is primarily responsible, especially its mature trees and ornamental lake. The heronry on one of the islands is one of London's larger breeding colonies, while the lake itself supports a nationally significant breeding population of pochard alongside the captive wildfowl collection. A surprising diversity of migrant birds are recorded every spring and autumn. In recent years, an informally-managed wildlife area has been established in the north-west of the park, which various common butterflies and other invertebrates have quickly colonised.
Hampstead Heath (SINC – Metropolitan)	~2km north east	Just over six kilometres from central London, this extensive site is well known for its unique mix of semi-natural and formal habitats. Ancient woodlands contain an exceptional number of old and over-mature trees, providing dead wood habitat for a range of specialist invertebrates, including the nationally rare jewel beetle *Agrilus pannonicus*. Another important habitat is the small wet flush (or bog) containing several species of bog-mosses (*Sphagnum spp*.) and water horsetail (*Equisetum fluviatile*), all very rare in London. Acid grassland occurs on the upper slopes, supporting heath bedstraw (*Galium saxatile*), pill sedge (*Carex pilulifera*), pignut (*Conopodium majus*) and other characteristic plants. In several places heathland restoration is being attempted, using heathers (*Calluna vulgaris, Erica spp*.). Relict heathland invertebrates include the tube-web spider (*Atypus affinis*) at its only known London site. The many ponds and watercourses on the site are of further botanical, entomological and ornithological interest. Other rare plants include creeping willow (*Salix repens*), lemon-scented fern (*Oreopteris limbosperma*) and hard fern (*Blechnum spicant*). One of north London's most popular open spaces, the Heath has been skillfully managed to integrate wildlife and recreation over the last decade.

Site Name	Approximate Location	Description
Caledonian Park (SINC – Borough Grade I)	~1km east	Caledonian Park began life as the original venue of the 19th century Metropolitan Cattle Market, from which its majestic Victorian clock tower dates. The park, although still managed on a largely formal basis, has nevertheless been steadily transformed in recent years to become a haven for wildlife. The perimeter shrubberies include mainly native species, many of them berry-bearing to feed hungry thrushes and blackbirds in the winter. Other resident birds include dunnocks, robins and wrens. Part of the amenity grassland is left to grow long in order to encourage wild flowers and insects to colonise. Other features include borders with specially chosen nectar-bearing plants where a range of butterflies may be seen. The park is understandably very popular with the local community in this densely-developed part of London.
Primrose Hill (SINC – Borough Grade II)	~1.3km west	This area of Regent's Park consists mostly of mown amenity grassland with scattered groups of mature trees (located around the hill itself and at the park's perimeter). From the top of the hill is one of the classic views of London. The grassland beneath the trees is less often mown and retains some of the original fine leaved species you could expect to find here including red fescue and creeping bent. The trees of the parkland are mostly London plane but common lime, hawthorn, horse-chestnut and young whitebeams are also present. Next to Albert Road there is a hedge of hawthorn and near the amenity block one composed of field maple. It is only along the south-western boundary where any significant planted shrubbery occurs. The park is very attractive to a variety of birds including wood pigeon, starling, blue tit and robin, and is open during daylight hours.

Biodiversity Action Plans

4.5 UK Biodiversity Action Plans (BAPs) have been developed which set priorities for nationally important habitats and species. To support the BAPs, Species/Habitat Statements (otherwise known as Species/Habitat Action Plans) were produced that provide an overview of the status of the species and set out the broad policies that can be developed to conserve them. A list of priority species of conservation importance was also developed.

4.6 The UK BAP was succeeded in 2012 by the *UK-Post 2012 Biodiversity Framework* which informed the creation of the *Biodiversity 2020* strategy; England's contribution towards the UK's commitments under the *United Nations Convention of Biological Diversity*.

4.7 Despite this, the UK BAP priority species lists and conservation objectives still remain valid through integration with local BAPs (which remain valid), and in the form of the Habitats and Species of Principle Importance list (as required under section 41 of the Natural Environment and Rural Communities (NERC) Act).

4.8 The following UK BAP priority habitats were present at site or in the immediate vicinity:

- Standing Open Water and Canals

4.9 Local Biodiversity Action Plans (LBAPs) ensure that national action plans (the UK BAP/Biodiversity 2020) are translated into effective action at the local level and establish targets and actions for locally characteristic species and habitats.

London BAP

4.10 The London BAP7 lists 26 priority habitats and species to protect and enhance, which are of importance to London's nature conservation. Notable features of the London BAP that are of relevance to this report are:

- The onus placed on the importance of built structures to local wildlife;
- The bat Species Action Plan (SAP);
- The house sparrow SAP; and
- Standing Water HAP.

Camden BAP

4.11 Features within the Camden BAP of importance to this report include:

- The Built Environment Action Plan; and
- Camden Biodiversity Advice Note on Landscaping Schemes and Species Features.
- Camden Biodiversity Advice Note on Living Roofs and Walls.

Species Record

4.12 The information provided in the biological data search from GiGL identified records of a number of protected and BAP priority species within 2km search radius of the site. Among others, these include the following species of relevance to the site:

- Mammals (excluding bats) – European otter (*Lutra lutra).*
- Bat species including common noctule (*Nyctalus noctula*), Leisler's (*Nyctalus leisleri),* common pipistrelle (*Pipistrellus pipistrellus*), nathusius pipistrelle (*Pipistrellus nathusii*), soprano pipistrelle (*Pipistrellus pygmaeus*), Daubenton's (*Myotis daubentonii*), serotine (*Eptesicus serotinus),* brown long-eared (*Plecotus auritus);*
- Birds –house sparrow (Passer domesticus), black redstart (Phoenicurus ochruros), swift (Apus apus), kingfisher (Alcedo atthis), sand martin (Riparia riparia);
- Invertebrates – Stag beetle (*Lucanus cervus*), Wall (*Lasiommata megera*).

4.13 The species listed above are primarily those known to be in the area that may be impacted by any proposals at the site, or that stand to benefit as a consequence of potential ecological enhancements at the site and inform site-specific mitigation and enhancement recommendations described in the following chapter.

Detailed Description of Site: Habitats

4.14 The habitats presented across the assessment site consist of the following Joint Nature Conservation Committee (JNCC) Phase 1 Habitat categories, as mapped at Figure 1:

Hardstanding (J3.6.1)

4.15 The site mainly comprises of hardstanding which is currently used as car parking. This comprises of brick paving and is in good condition.

Figure 4.1 Hardstanding

Introduced shrub (J1.4)

4.16 There is a strip of dense overgrown introduced shrub running along the northern boundary of the site. Species include ivy (*Hedera helix)*, spotted laurel (*Aucuba japonica)*, paperplant (*Fatsia japonica),* and Persian ivy *(Hedera colchica).*

Target Note 1:

4.17 *Buddleia davidii*, a species listed on the London Invasive Species Initiative (LISI) list, was also observed amongst the dense shrub growth and is marked on the habitat map as target note 1.

4.18 Scattered tree species include sycamore (*Acer pseudoplatanus)*, silver birch (*Betula pendula)* and lime (*Tilia sp.)* are also marked on the habitat map.

Figure 4.2 Introduced shrub and scattered trees along the northern boundary.

Detailed description of Site: Species

Bats

Foraging

4.19 The majority of the site is likely to be of limited value for foraging or commuting bats comprising predominately of building and hardstanding next to a busy road with existing light disturbance. However, there are opportunities over the adjacent canal and the introduced shrub/trees which borders it. Therefore, the site is considered to have **high** potential to support foraging and commuting bats.

Roosting

4.20 There are no buildings on site and the trees do not possess any features or crevices suitable for roosting bats. The buildings adjacent to the site also do not possess any features suitable for roosting bats. The site therefore has **negligible** potential to support roosting bats.

Birds

4.21 The trees and shrubby vegetation on site are considered to have **high** potential to support nesting birds.

Invertebrates

4.22 The site possesses only common plant species and habitats which provide limited value for notable invertebrates. The introduced shrub habitat does not possess suitable volumes of deadwood to support stag beetle and nectar sources for pollinators are limited.

4.23 The site is considered to have **low** potential to support notable invertebrates.

Invasive species/ Non-native species

4.24 There is **confirmed presence** of *Buddleia davidii* on site (Target Note 1); this species is listed on the London Invasive Species Initiative (LISI).

Other BAP/Protected Species

4.25 No UK, London, or Camden BAP priority species were recorded during the PEA, however, all relevant BAP species should be considered through development and enhancement actions should specifically target these species to help meet conservation objectives.

4.26 The potential for all other protected species including badgers, water vole, otter, great crested newt, dormouse, and reptiles was considered negligible given the urban nature of the site and the habitats present.

5.0 EVALUATION AND DISCUSSION

BASELINE SUMMARY

5.1 The assessment site and its surroundings have potential to support the following ecological receptors of note, which could therefore be impacted upon by any future prospective development proposals, as indicated in Table 5.1 below. Comment on further recommendations for each receptor is provided; further detail and discussion can be found at paragraph 5.2 onward:

Table 5.1 Baseline Summary

Receptor	Presence/Potential Presence	Comments
Designated Sites: Statutory	Two present within 2km	Impacts associated with the development are considered unlikely as the closest designated site is 900m away and is separated from the site by urban development and associated infrastructure.
Designated Sites: Non-Statutory	Present immediately adjacent to site boundary	The site borders the Regent's Canal, a Metropolitan SINC. In the absence of mitigation, construction works may stand to result in impacts upon this designation through increased pollution and disturbance. Proposals should embed measures which address potential impact upon the canal. These measures could be described within a Construction Environmental management Plan (CEMP). Specifically impacts through pollutant spillage, light spill, and increased dust deposition should be managed during construction. Operational impacts upon this designation may stand to occur should uncontrolled light spill be allowed. Accordingly, proposals should embed measures to control lighting as discussed below.
Foraging bats	High	As well as functioning as a commuting route for bats, the Regent's Canal, which is immediately north of the site, may provide foraging habitat. The new scheme will result in the removal of some of the shrub/tree line and, without suitable mitigation, may stand to result in increased light spill over the canal.

Receptor	Presence/Potential Presence	Comments
		Accordingly, sensitive lighting which follows best practice industry guidance should be followed. [25] Light spill modelling and an assessment of the impact of light spill upon the canal should be undertaken on the basis of the proposed lighting strategy. Assuming modelling establishes that there will not be a significant increase in light spill upon the canal then no further surveys are recommended. However, if proposals are predicted to result in increased spill, then further activity surveys are recommended to assess the relative importance of this stretch of the canal for bats, in accordance with BCT guidelines and best practice, and will establish the extent of mitigation required.
Roosting bats	Negligible	No further surveys are recommended as the site has negligible potential to support roosting bats. Roosting opportunities should however be provided as part of the new scheme to deliver potential enhancements for roosting bats.
Birds	High	Nesting opportunities are present within the trees and shrubby vegetation on site. Recommendations are therefore provided below regarding any site clearance works and the provision of compensatory and enhanced nesting opportunities.
Invertebrates	Low	The habitats present on site are of low suitability to support notable invertebrates. No further surveys are required, however it is recommended that suitable enhancement measures are implemented to improve the value of the site for invertebrates. These enhancements should come in the form of wildlife friendly planting, living roofs with invertebrate features (sandy piles, log piles) and enhanced aquatic habitat.
Invasive/Non-native species LISI species.	Present	Buddleia was confirmed on site during the site visit. No further surveys are required, however measures must be taken to ensure this plant is removed from site and disposed of following best practice guidance.

DISCUSSION AND RECOMMENDATIONS

5.2 Discussion is provided below on the key ecological receptors that stand to be impacted/benefit from proposed works; high level commentary on appropriate mitigation, compensation and enhancement actions is also provided.

Regent's Canal SINC

5.3 The development may stand to have an impact on the neighbouring Metropolitan SINC, therefore it is recommended that an assessment of these potential impacts specifically relating to light spillage, pollutant spillage, and increased dust deposition is undertaken.

5.4 Following this, measures to prevent such impacts should be described within a Construction Environmental Management Plan (CEMP).

Bats

5.5 It is recommended that an assessment of light spill and its potential impacts on the canal is undertaken, following which further surveys for bats may be required. Results of these surveys and analysis of a light spill impact assessment should be used to identify appropriate mitigation, compensation and enhancement actions.

5.6 A sensitive lighting scheme following BCT/ILP best practice should be designed that uses low UV components bulbs and low lighting column height, especially to the north of the site to avoid spillage on the Regent's canal.

5.7 These actions could be described within the Construction Environmental Management Plan (CEMP) and an Ecological Management Plan (EMP) for the site, which could both be secured through planning condition in accordance with BS 42020: 2013 Biodiversity.

Birds

5.8 Impacts upon nesting birds can be fully avoided through seasonal clearance of vegetation outside of the active nesting period (March to August inclusive), unless a suitably qualified ecologist has confirmed absence of active nests.

5.9 Compensatory and additional nesting opportunities should be provided in the form of bird boxes within the fabric of the buildings on the new development and provision of wildlife friendly landscaping; this should include suitable shrub cover and vertical greening.

Ecological Enhancement

5.10 There are opportunities to enhance the ecological value of the site through the development proposals. Habitat should be created to provide value for priority species in line with local conservation objectives.

5.11 Specifically, the following enhancement features are recommended for consideration:

- Biodiverse green roofs – Areas of biodiverse living roof should be based of a low-nutrient substrate, plug planted and seeded with at least 30 species of known value to wildlife. The roof should be further enhanced through the inclusion of features such as log piles, rock piles, and sandy piles;

- Vertical greening consisting of trellises with climbing plants utilising native species of value for pollinators should be incorporated on suitable elevations of the new building;
- Wildlife friendly landscaping including native trees and shrubs and herbaceous planting should be included within the proposed areas of landscaping. Species included should be of known value for pollinators, in particluar using species from the RHS Plants for Pollinators Guide26 Recommended tree species should be native and be selected for the ecosystem services they provide, such as carbon sequestration, drought tolerance and pollution tolerance. Landscaping could include buffer planting along the site's boundary with the Regent's Canal, which could take the form of a floating reedbed island;
- Bird boxes – Provide nesting opportunities for birds, particularly targeting London BAP species like house sparrow. Specialised house sparrow terraces can be included that are fully integrated within new buildings. These boxes should be positioned near to any area of vegetation and be placed at least 2m above ground level. We recommend using 'woodstone' products that utilise a mix of concrete and FSC wood fibres, creating a strong, long-lasting and sustainable product. Swift boxes should also be installed along with a swift call system to encourage uptake.
- Bat boxes would provide potential roosting opportunity for London BAP priority species such as common pipistrelle. The boxes should be placed on the eastern and western elevations of the buildings and like the bird boxes should be incorporated into the built form. We recommend using 'woodstone' products that utilise a mix of concrete and FSC wood fibres, creating a strong, long-lasting and sustainable product78
- Invertebrate habitat features – Within public landscaped areas, invertebrate habitat features should be incorporated to provide features of interest as well as ecological function. Stag beetle loggeries should be placed in shady areas amongst trees to provide forage and shelter for saproxylic invertebrates in larval stage, whereas bee bricks and habitat panels should be located in sunny areas.

6.0 SUMMARY & CONCLUSION

6.1 Greengage was commissioned by Hartdixon to undertake a PEA at a site known as 149-150 Royal College Street in the London Borough of Camden in order to establish the ecological value of this site and its potential to support notable and/or legally protected species.

6.2 Data received from the desk top study and the PEA site walkover have confirmed that the site has negligible/low potential to support all protected/notable species with the exception of foraging and commuting bats and nesting birds.

6.3 It was also identified that the northern boundary of the site borders the Regent's Canal Metropolitan SINC. Suitable measures should accordingly be embedded within the proposed construction approach to mitigate potential impacts upon the canal.

6.4 An assessment of the light impacts of the development on the SINC is also recommended to be undertaken to identify the need for further bat activity surveys; no further survey is considered necessary if proposals can establish how they avoid increased light spill over the canal in this location.

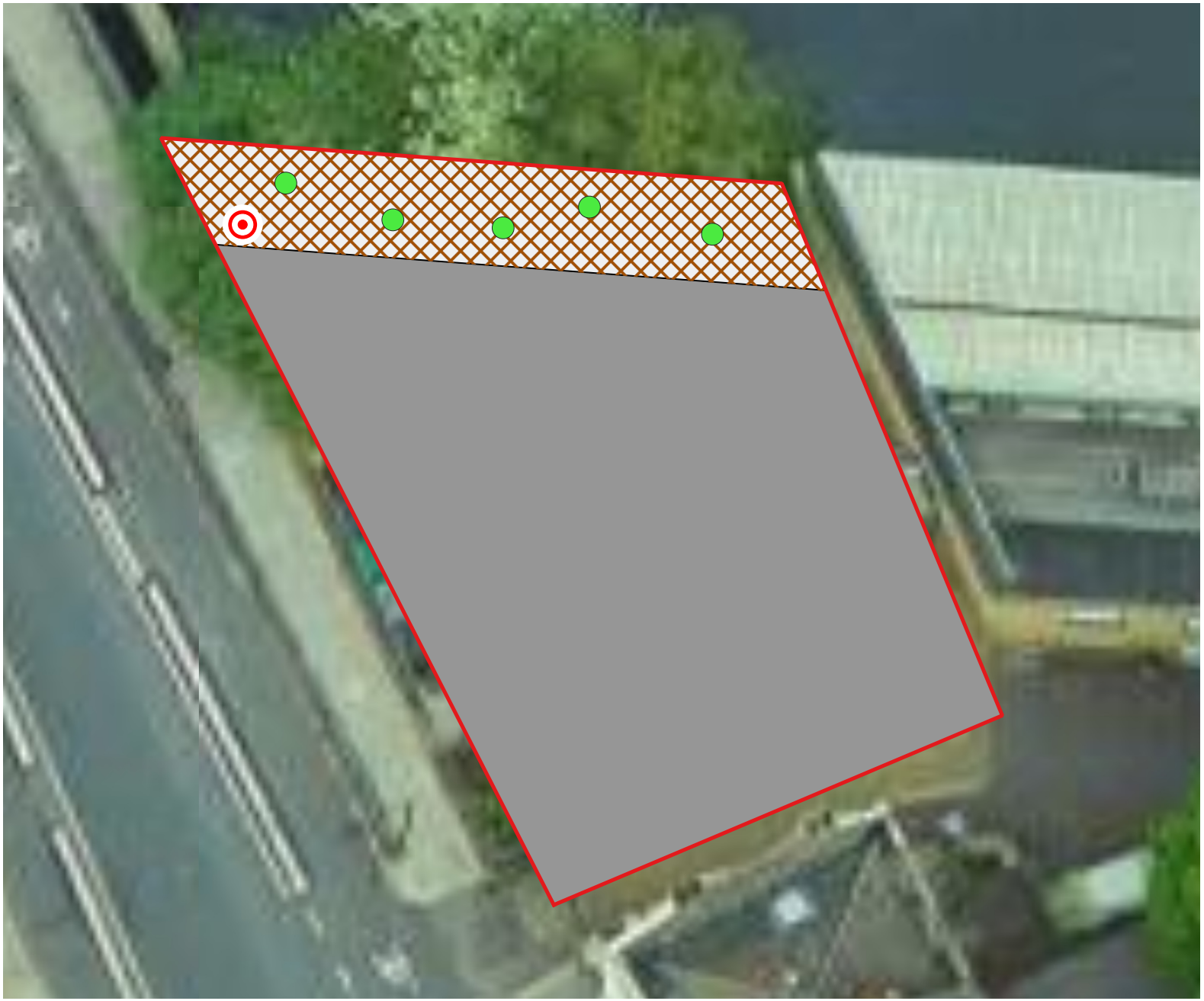
6.5 Given the value for nesting birds in the dense shrub and scattered trees along the northern boundary it is recommended that any clearance of suitable vegetation on site should be undertaken outside of nesting bird season (March-August Inclusive).

6.6 Key mitigation, compensation and enhancement actions are described to enable legislative and policy compliance.

6.7 Key actions should be included within EMP and CEMP documents for the site which could be secured through planning condition.

FIGURE 1 SITE PLAN AND HABITAT MAP

ROYAL COLLEGE STREET



- Target Notes
- Assessment boundary
- Scattered trees

Habitats

- J1.4 - Introduced shrub
- J3.6.1 - Hardstanding

Greengage

9 Holyrood Street, London SE1 2EL

Fig 1.0 Site Plan and Habitat Map

Project Number 551370
April 2021

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APPENDIX 2 RELEVANT LEGISLATION AND POLICY

LEGISLATION

Current key legislation relating to ecology includes the Wildlife and Countryside Act 1981 (as amended)[9]; The Conservation of Habitats and Species Regulations 2017 ('Habitats & Species Regulations')[10], The Countryside and Rights of Way Act 2000 (CRoW Act)[11], and The Natural Environment and Rural Communities Act, 2006[12].

The Conservation of Habitats and Species Regulations 2017

The Conservation of Habitats & Species Regulations replace The Conservation (Natural Habitats, etc.) Regulations 1994 (as amended)[13], and transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora ('EU Habitats Directive')[14], and Council Directive 79/409/EEC on the Conservation of Wild Birds ('Birds Directive')[15] into UK law (in conjunction with the Wildlife and Countryside Act).

Regulation 43 and 47 respectively of the Conservation of Habitats & Species Regulations makes it an offence (subject to exceptions) to deliberately capture, kill, disturb, or trade in the animals listed in Schedule 2 (European protected species of animals), or pick, collect, cut, uproot, destroy, or trade in the plants listed in Schedule 5 (European protected species of plant). Development that would contravene the protection afforded to European protected species requires a derogation (in the form of a licence) from the provisions of the Habitats Directive.

Regulation 63 (1) states: 'A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project which —

> (a) is likely to have a significant effect on a European site or a European offshore marine site (either alone or in combination with other plans or projects); and
>
> (b) is not directly connected with or necessary to the management of that site;

must make an appropriate assessment of the implications for that site in view of that site's conservation objectives.'

Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 (as amended) is the principal mechanism for the legislative protection of wildlife in Great Britain. This legislation is the means by which the Convention on the Conservation of European Wildlife and Natural Habitats[16] (the 'Bern Convention') and the Birds Directive and EU Habitats Directive are implemented in Great Britain.

The Countryside and Rights of Way Act 2000

The Wildlife and Countryside Act has been updated by the CRoW Act. The CRoW Act amends the law relating to nature conservation and protection of wildlife. In relation to

threatened species it strengthens the legal protection and adds the word 'reckless' to the offences of damaging, disturbing, or obstructing access to any structure or place a protected species uses for shelter or protection, and disturbing any protected species whilst it is occupying a structure or place it uses for shelter or protection.

The Natural Environment and Rural Communities Act 2006

The Natural Environment and Rural Communities Act 2006 states that every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity. Biodiversity Action Plans provide a framework for prioritising conservation actions for biodiversity.

Section 41 of the Natural Environment and Rural Communities Act requires the Secretary of State to publish a list of species of flora and fauna and habitats considered to be of principal importance for the purpose of conserving biodiversity. The list, a result of the most comprehensive analysis ever undertaken in the UK, currently contains 1,149 species, including for example, hedgehog (*Erinaceus europaeus*), and 65 habitats that were listed as priorities for conservation action under the now defunct UK Biodiversity Action Plan[17] (UK BAP). Despite the devolution of the UK BAP and succession of the UK Post-2010 Biodiversity Framework[18] (and Biodiversity 2020 strategy[19] in England), as a response to the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020[20] and EU Biodiversity Strategy (EUBS)[21], this list (now referred to as the list of Species and Habitats of Principal Importance in England) will be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 41 of the Natural Environment and Rural Communities Act 2006 'to have regard' to the conservation of biodiversity in England, when carrying out their normal functions.

Biodiversity Action Plans

Non-statutory Biodiversity Action Plans (BAPs) have been prepared on a local and regional scale throughout the UK over the past 15 years. Such plans provide a mechanism for implementing the government's broad strategy for conserving and enhancing the most endangered ('priority') habitats and species in the UK for the next 20 years. As described above the UK BAP was succeeded in England by Biodiversity 2020 although the list of priority habitats and species remains valid as the list of *Species of Principal Importance for Nature Conservation*.

Regional and local BAPs are still valid however and continue to be updated and produced.

Detail on the relevant BAPs for this site are provided in the main text of this report.

Legislation Relating to Nesting Birds

Nesting birds, with certain exceptions, are protected from intentional killing, destruction of nests and destruction/taking of eggs under the Wildlife and Countryside Act 1981 (as amended) and the CRoW Act. Any clearance of dense vegetation should therefore be undertaken outside of the nesting bird season, taken to run conservatively from March

to August (inclusive), unless an ecologist confirms the absence of active nests prior to clearance.

Legislation Relating to Bats

All UK bats and their roosts are protected by law. Since the first legislation was introduced in 1981, which gave strong legal protection to all bat species and their roosts in England, Scotland and Wales, additional legislation and amendments have been implemented throughout the UK.

Six of the 18 British species of bat have Biodiversity Action Plans (BAPs) assigned to them, which highlights the importance of specific habitats to species, details of the threats they face and proposes measures to aid in the reduction of population declines.

Although habitats that are important for bats are not legally protected, care should be taken when dealing with the modification or development of an area if aspects of it are deemed important to bats such as flight corridors and foraging areas.

The Wildlife & Countryside Act 1981 (WCA) was the first legislation to provide protection for all bats and their roosts in England, Scotland and Wales (earlier legislation gave protection to horseshoe bats only.)

All eighteen British bat species are listed in Schedule 5 of the Wildlife and Countryside Act, 1981 and under Annexe IV of the Habitats Directive, 1992 as a European protected species. They are therefore fully protected under Section 9 of the 1981 Act and under Regulation 43 of the Conservation of Habitats and Species Regulations 2017, which transposes the Habitats Directive into UK law. Consequently, it is an offence to:

Deliberately capture, injure or kill a bat;

Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;

Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);

Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat; and

Intentionally or recklessly obstruct access to a bat roost.

This legislation applies to all bat life stages.

The implications of the above in relation to the proposals are that where it is necessary during construction to remove trees, buildings or structures in which bats roost, it must first be determined that work is compulsory and if so, appropriate licenses must be obtained from Natural England.

PLANNING POLICY

National

National Planning Policy Framework

The National Planning Policy Framework (NPPF) 2019[22] sets out the Government's planning policies for England, including how plans and decisions are expected to apply a presumption in favour of sustainable development. Chapter 15 of the NPPF focuses on conservation and enhancement of the natural environment, stating plans should 'identify and pursue opportunities for securing measurable net gains for biodiversity'.

It goes on to state: 'if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused'. Alongside this, it acknowledges that planning should be refused where irreplaceable habitats such as ancient woodland are lost.

Regional

The London Plan 2021

Policy G1 Green infrastructure

A. London's network of green and open spaces, and green features in the built environment such as green roofs and street trees, should be protected, planned, designed and managed as integrated features of green infrastructure.

B. Boroughs should prepare green infrastructure strategies that integrate objectives relating to open space provision, biodiversity conservation, flood management, health and wellbeing, sport and recreation.

C. Development Plans and Opportunity Area Planning Frameworks should:

    1. identify key green infrastructure assets, their function and their potential function

    2. identify opportunities for addressing environmental and social challenges through strategic green infrastructure interventions.

Policy G2 London's Green Belt

A. The Green Belt should be protected from inappropriate development:

    1. development proposals that would harm the Green Belt should be refused

    2. the enhancement of the Green Belt to provide appropriate multi-functional uses for Londoners should be supported.

Policy G5 Urban greening

A. Major development proposals should contribute to the greening of London by including urban greening as a fundamental element of site and building design, and by incorporating measures such as high-quality landscaping (including trees), green roofs, green walls and nature-based sustainable drainage.

B. Boroughs should develop an Urban Greening Factor (UGF) to identify the appropriate amount of urban greening required in new developments. The UGF should be based on the factors set out in Table 8.2, but tailored to local circumstances. In the interim, the Mayor recommends a target score of 0.4 for developments that are predominately residential, and a target score of 0.3 for predominately commercial development.

Policy G6 Biodiversity and access to nature

C. Sites of Importance for Nature Conservation (SINCs) should be protected.

D. Boroughs, in developing Development Plans, should:

1 use up-to-date information about the natural environment and the relevant procedures to identify SINCs and ecological corridors to identify coherent ecological networks

2 identify areas of deficiency in access to nature (i.e. areas that are more than 1km walking distance from an accessible Metropolitan or Borough SINC) and seek opportunities to address them

3 support the protection and conservation of priority species and habitats that sit outside the SINC network, and promote opportunities for enhancing them using Biodiversity Action Plans

4 seek opportunities to create other habitats, or features such as artificial nest sites, that are of particular relevance and benefit in an urban contextPolicy G7 Trees and woodlands

5 ensure designated sites of European or national nature conservation importance are clearly identified and impacts assessed in accordance with legislative requirements.

E Where harm to a SINC is unavoidable, and where the benefits of the development proposal clearly outweigh the impacts on biodiversity, the following mitigation hierarchy should be applied to minimise development impacts:

1. avoid damaging the significant ecological features of the site
2. minimise the overall spatial impact and mitigate it by improving the quality or management of the rest of the site

3. deliver off-site compensation of better biodiversity value.

F. Development proposals should manage impacts on biodiversity and aim to secure net biodiversity gain. This should be informed by the best available ecological information and addressed from the start of the development process.

G. Proposals which reduce deficiencies in access to nature should be considered positively.

Policy G7 Trees and woodlands

A. Development proposals should ensure that, wherever possible, existing trees of quality are retained [Category A and B]. If it is imperative that trees have to be removed, there should be adequate replacement based on the existing value of the benefits of the trees removed, determined by, for example, i-tree or CAVAT. The planting of additional trees should generally be included in new developments – particularly large-canopied species which provide a wider range of benefits because of the larger surface area of their canopy.

Supplementary Planning Guidance (SPG): Sustainable Design and Construction 2014

As part of the London Plan 2011 implementation framework, the SPG, relating to sustainable design and construction, was adopted in April 2014 and includes the following sections detailing Mayoral priorities in relation to biodiversity of relevance to The Site.

Nature conservation and biodiversity

The Mayor's priorities include ensuring 'developers make a contribution to biodiversity on their development Site'.

Overheating

Where priorities include the inclusions of 'measures, in the design of schemes, in line with the cooling hierarchy set out in London Plan policy 5.9 to prevent overheating over the scheme's lifetime'

Urban greening

A Priority is for developers to 'integrate green infrastructure into development schemes, including by creating links with wider green infrastructure network'.

Use less energy

'The design of developments should prioritise passive measures' which can include 'green roofs, green walls and other green infrastructure which can keep buildings warm or cool and improve biodiversity and contribute to sustainable urban drainage'.

London Environment Strategy 2018[23]

The Mayor's Environment Strategy was published in May 2018. This document sets out the strategic vision for the environment throughout London. Although not primarily a planning guidance document, it does set strategic objectives, policies and proposals that are of relevance to the delivery of new development in a planning context, including:

Objective 5.1 Make more than half of London green by 2050

Policy 5.1.1 Protect, enhance and increase green areas in the city, to provide green infrastructure services and benefits that London needs now.

This policy states:

"New development proposals should avoid reducing the overall amount of green cover and, where possible, seek to enhance the wider green infrastructure network to increase the benefits this provides. […] New developments should aim to avoid fragmentation of existing green space, reduce storm water run-off rates by using sustainable drainage, and include new tree planting, wildlife-friendly landscaping, or features such as green roofs to mitigate any unavoidable loss".

This supports the 'environmental net gain' approach promoted by government in the 25 Year Environment Plan.

Proposal 5.1.1.d The London Plan includes policies to green streets and buildings, including increasing the extent of green roofs, green walls and sustainable drainage.

Objective 5.2 conserving and enhancement wildlife and natural habitats

Policy 5.2.1 Protect a core network of nature conservation sites and ensure a net gain in biodiversity

This policy requires new development to include new wildlife habitat, nesting and roosting sites, and ecologically appropriate landscaping will provide more resources for wildlife and help to strengthen ecological corridors. It states:

"*Opportunities should be sought to create or restore priority habitats (previously known as UK Biodiversity Action Plan habitats) that have been identified as conservation priorities in London [and] all land managers and landowners should take BAP priority species into account*".

Local

Camden Local Plan 2017

Policy A3 Biodiversity

The Council will protect and enhance sites of nature conservation and biodiversity. We will:

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

with BS5837:2012 'Trees in relation to Design, Demolition and Construction' and positively integrated as part of the site layout;

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

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