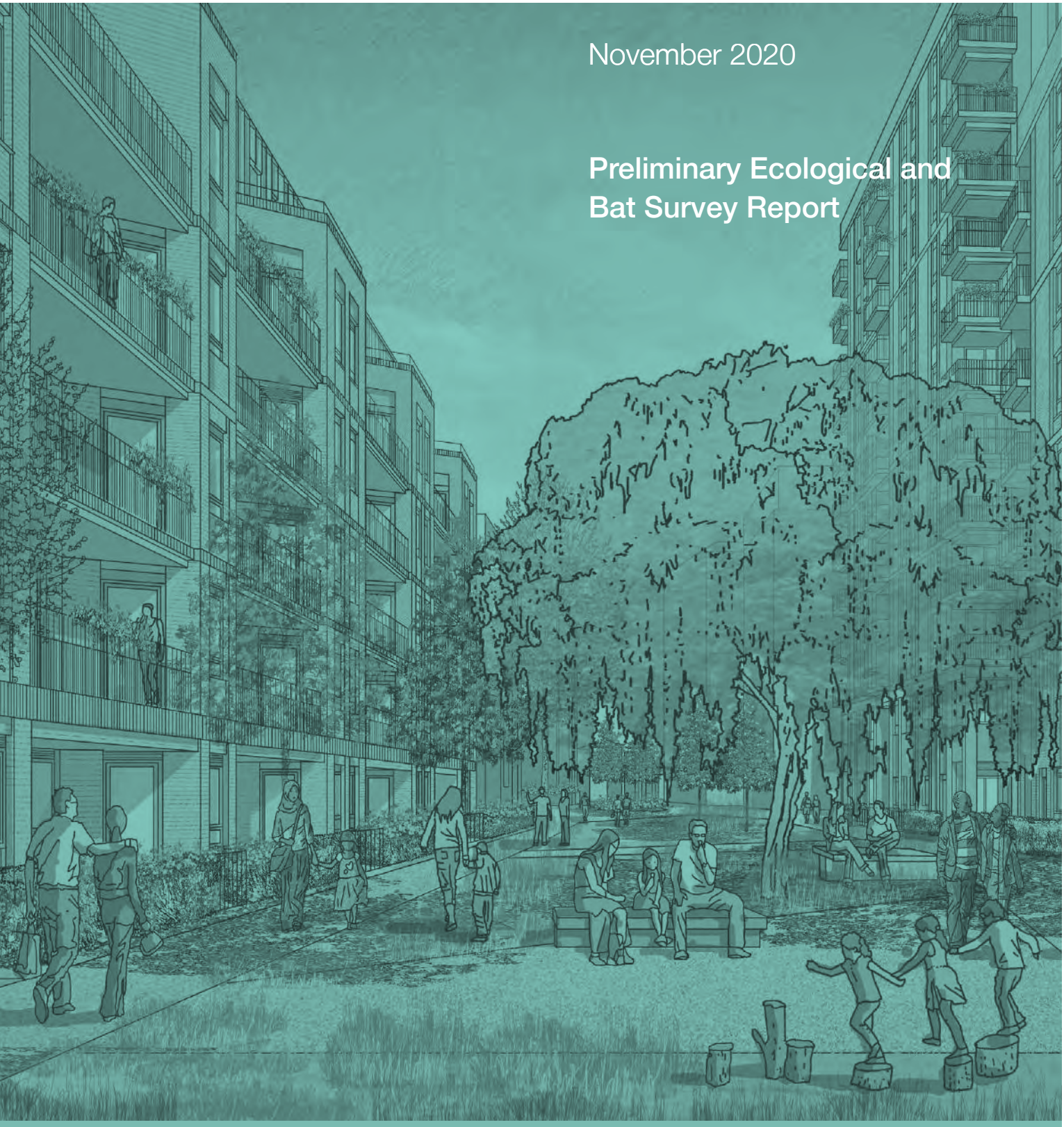
# CAMBRIDGE ROAD ESTATE – PLANNING APPLICATION 20/02942/FUL

# PRELIMINARY ECOLOGICAL AND BAT SURVEY REPORT

****NO AMENDMENT TO DOCUMENT SINCE SUBMISSION OF APPLICATION IN NOVEMBER 2020 – ORIGINAL SUBMISSION DOCUMENT****

Patel Taylor

**Cambridge Road Estate**
Hybrid Planning Application



November 2020

# Preliminary Ecological and Bat Survey Report

CRE
CAMBRIDGE ROAD ESTATE

COUNTRYSIDE
Places People Love

THE ROYAL BOROUGH OF
KINGSTON
UPON THAMES

## The Applicant

**Cambridge Road (Kingston) Ltd**

c/o Countryside Properties
Aurora House
71-75 Uxbridge Road
Ealing
London W5 5SL

## The project site

**Cambridge Road Estate**
**Project hub**

2 Tadlow
Washington Road
Kingston Upon Thames
Surrey
KT1 3JL

## Application forms

Covering letter

Application Form and Notices

CIL Additional Information Form

## Design proposals

Planning Statement

Design and Access Statement
- Vol.1 - The Masterplan
- Vol.2 - The Detailed Component

The Masterplan
- Parameter Plans
- Illustrative Plans
- Design Guidelines

Phase 1 Architecture and Landscape
- GA Plans, Sections and Elevations

## Supporting information

Statement of Community Involvement

Rehousing Strategy

Financial Viability Appraisal

Draft Estate Management Strategy

Transport Assessment
Phase 1 Travel Plan
Car Parking Management Plan
Servicing and Delivery Management Plan

Construction Logistics Plan
Construction Method Statement and Construction Management Plan
Sustainable Design and Construction Statement (Including Circular Economy Statement)

Environmental Statement
- Non Technical Summary
- Vol.1 – Technical Reports
- Vol.2 – Technical Appendices
- Vol.3 - Townscape and Visual Impact Assessment

Energy Statement (Including Overheating Assessment and Whole Life Cycle Assessment)

Daylight and Sunlight
Internal Assessment of the Detailed Component
External Assessment of the Illustrative Masterplan

Extraction and Ventilation Strategy
Noise Impact Assessment

Arboricultural Report and Tree Conditions Survey
Arboricultural Impact Assessment & Method Statement
Preliminary Ecological and Bat Survey Report
Biodiversity Net Gain Assessment

Archaeology and Heritage Assessment
Ground Conditions Assessment

Utilities Report

Flood Risk Assessment
Phase 1 Drainage Statement

Fire Strategy Report

Accessibility Audit
Health Impact Assessment
Equalities Impact Assessment

Greengage

Cambridge Road Estate, Cambridge Road (RBK) LLP
Preliminary Ecological Appraisal – November 2020

# QA

## Cambridge Road Estate – Preliminary Ecological Appraisal

| | | |
|---|---|---|
| Issue/Revision: | Draft | Final |
| Date: | June 2020 | November 2020 |
| Comments: | | |
| Prepared by: | Daniel Perlaki | Daniel Perlaki |
| Signature: |  |  |
| Authorised by: | Mike Harris | Mike Harris |
| Signature: |  |  |
| File Reference: | 551291dpNov19DV02_PEA | 551291dpNov19FV02_PEA |

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# 1.0 EXECUTIVE SUMMARY

1.1 Greengage Environmental Ltd was commissioned to undertake a Preliminary Ecological Appraisal by Cambridge Road (RBK) LLP of the Cambridge Road Estate, in the Royal Borough of Kingston.

1.2 This document is a report of this survey and has been produced to support a hybrid Outline Planning Application for a mixed use development, including demolition of existing buildings and erection of up to 2,170 residential units (Use Class C3), 290sqm of flexible office floorspace (Use Class E), 1,395sqm of flexible retail/commercial floorspace (Use Class E/Sui Generis), 1,250sqm community floorspace (Use Class F2), new publicly accessible open space and associated access, servicing, landscaping and works.

1.3 Detailed permission is sought for access, layout, scale, appearance and landscaping of Phase 1 for erection of 452 residential units (Use Class C3), 1,250sqm community floorspace (Use Class F2), 290sqm of flexible office floorspace (Use Class E), 395sqm of flexible retail/commercial floorspace (Use Class E/Sui Generis), new publicly accessible open space and associated access, servicing, parking, landscaping works including tree removal, refuse/recycling and bicycle storage, energy centre and works ("the Proposed Development").

1.4 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.

1.5 Habitats recorded on site were common and widespread and of little value beyond the site boundary itself. However, the potential to support a number of protected species was recorded. Specifically, the site is considered to have:

- Low potential to support foraging bats;
- Moderate potential to support roosting bats;
- Confirmed presence of nesting birds; and
- Low potential to support west European hedgehog.

1.6 The survey also identified the presence of a non-statutory site (Kingston Cemetery Site of Importance for Nature Conservation) within 20m. Although several statutory designated sites are present within a 2km radius of the site, all are outside the likely zone of impact of the development.

1.7 In lieu of mitigation, the Proposed Development stands to impact nesting birds and hedgehogs through site clearance and habitat loss. As such, avoidance, mitigation and compensation recommendations are outlined in this report. These include the production of a Construction Environment Management Plan (CEMP), scheduling site clearance

outside of the nesting bird season where possible, or where not possible, following a check of any suitable nesting bird habitat by a suitably qualified ecologist prior, provision of bird and bat boxes to compensate for lost opportunities and provision of soft landscaping designed with local biodiversity in mind.

1.8 Additionally, further bat emergence/re-entry and activity surveys are recommended to determine the level of impact to foraging and roosting bats and identify appropriate mitigation actions.

1.9 To demonstrate compliance with emerging planning policy, biodiversity net gain (BNG) is required as a consequence of the Proposed Development. Interventions to assist in delivering BNG have been selected to compliment local conservation objectives and provide habitat for:

- Stag beetle;
- Bats;
- Black redstart; and
- House sparrow.

1.10 To contribute to delivering this, ecological enhancement recommendations are made, including:

- Provision of extensive, substrate-based biodiverse roofs on suitable flat roof areas;
- Biodiverse roof enhancements to provide additional invertebrate habitat features;
- Wildflower turf incorporated on any 'amenity grassland' areas;
- Wildlife friendly soft landscaping in public realm; and
- Diverse tree planting.

1.11 Additional enhancement recommendations include provision of additional bird nest boxes and bat boxes across the site.

1.12 Demonstration of compliance with BNG policy is presented in a stand-alone report (ref 551291dpNov19FV02_BIA). It is recommended that an Ecological Management Plan (EMP) is secured through planning condition to ensure delivery of BNG for the masterplan site. Providing BNG is demonstrated and mitigation and further survey recommendations outlined in this report are adhered to, the Proposed Development can be fully compliant with all relevant UK and EU legislation, and local and national planning policy.

1.13 As the Proposed Development is to take place over a period of 10 - 15 years, ecological data collected through the PEA and the further surveys recommended within this report will need to be updated for future phases. Ecological data generally remains valid for up to 18 months, occasionally 24 months depending on the species and the site context. Therefore, it is recommended that as individual phases come forward that, where the existing Preliminary Ecological Appraisal (PEA) is more than 12 months old, an update PEA is undertaken covering the phase in question. The update PEA will also include

advice on whether any further surveys are required and whether there is a requirement to update any previously undertaken bat surveys.

1.14 In addition to the survey elements mentioned above, it is recommended that a high level, overarching Ecological Management Plan is prepared for the site. The site wide EMP would detail the high-level ecological mitigation and enhancement measures to be implemented on site as part of the development. Individual Phase EMPs could then be produced with specific detail for that plot/phase using the high-level information from the site wide EMP. This approach would allow for a consistent approach to ecological mitigation and enhancement across the site, ensuring the measures implemented work both at the individual plot/phase level and at the wider site level.

# 2.0 INTRODUCTION

2.1 Greengage was commissioned to undertake a Preliminary Ecological Appraisal by Cambridge Road (RBK) LLP of the Cambridge Road Estate, in the Royal Borough of Kingston upon Thames.

2.2 This document is a report of this survey and has been produced to support a hybrid Outline Planning Application for a mixed use development, including demolition of existing buildings and erection of up to 2,170 residential units (Use Class C3), 290sqm of flexible office floorspace (Use Class E), 1,395sqm of flexible retail/commercial floorspace (Use Class E/Sui Generis), 1,250sqm community floorspace (Use Class F2), new publicly accessible open space and associated access, servicing, landscaping and works.

2.3 Detailed permission is sought for access, layout, scale, appearance and landscaping of Phase 1 for erection of 452 residential units (Use Class C3), 1,250sqm community floorspace (Use Class F2), 290sqm of flexible office floorspace (Use Class E), 395sqm of flexible retail/commercial floorspace (Use Class E/Sui Generis), new publicly accessible open space and associated access, servicing, parking, landscaping works including tree removal, refuse/recycling and bicycle storage, energy centre and works ("the Proposed Development").

2.4 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

2.5 The survey area extends to approximately 9 hectares and is centred on National Grid Reference TQ190690, OS Co-ordinates 519074, 169085.

2.6 The estate is located within the Norbiton Ward in the Royal Borough of Kingston upon Thames, approximately 850m east of Kingston town centre. The site is bound to the north by A2043 – Kingston Road and to the south by Kingston Cemetery and Crematorium. The estate currently contains 832 residential homes distributed across:

- Four 15-storey residential tower blocks;
- Sixteen 5/4-storey terraced flats; and
- Numerous areas of 2-storey terraced housing.

2.7 The estate and assessment boundary also include the Bull and Bush Hotel and Piper Community Hall.

2.8 The site is situated in a residential area, sub-urban in character. Residential development dominates land use to the north, east and west of the site, including a newly constructed

student accommodation adjacent the site to the north. South of the site is Kingston Cemetery, beyond which lies the Hogsmill River (300m south). Southeast of the site features outdoor recreation areas. Green infrastructure provision in the area is formed by street trees, the cemetery, Hogsmill River, recreation grounds and residential gardens.

# 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 statutory and non-statutory consultation; and
- A site walkover, protected species scoping assessment and phase 1 habitat survey.

3.2 The site-specific consultation provided the ecological context for the site survey carried out on the 17th and 19th of June 2019.

3.3 An update walkover survey of the site was completed on the 12th October 2020 to assess any change in habitats and overall ecological value on site since the June 2019 survey.

3.4 The survey boundary and existing site is shown at Figure 1.

3.5 Greengage undertook the site walkover during dry 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.

## DESKTOP REVIEW

3.6 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

3.7 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

3.8 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.

3.9 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.

3.10 The species surveyed for included:

### Badger (Meles meles)

3.11 The potential for badger to inhabit or forage within the study area was assessed. Evidence of badger activity includes the identification of setts (a system of underground tunnels and nesting chambers), grubbed up grassland (caused by the animals digging for earthworms, slugs, beetles etc.), badger hairs, paths, latrines and paw prints.

### Bat Species (Chiroptera)

3.12 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.

3.13 Definite signs of bat activity were taken to be:

- The bats themselves;
- Droppings;
- Grease marks;
- Scratch marks; and
- Urine spatter.

3.14 Signs of possible bat presence were taken to be:

- Stains; and
- Moth and butterfly wings.

3.15 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.

3.16 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)

3.17 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

3.18 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.

Dormouse (Muscardinus avellanarius)

3.19 During the walkover survey the potential for dormouse to be present on site was assessed. This included observations for suitable habitat such as well-layered woodland, scrub and linking hedgerows, particularly those comprised of species offering suitable food sources such as honeysuckle and hazel, in addition to direct evidence such as characteristically gnawed hazelnuts, chewed ash keys and honeysuckle flowers, or nests.

Birds

3.20 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

3.21 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

3.22 Where consultation and desk-study indicate 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

3.23 Daniel Perlaki, who undertook the surveys at site, has an undergraduate degree in Ecology (BSc Hons), a Master's degree in Conservation Science and Policy and is a Graduate member of CIEEM. Dan has over 3 years of experience as an Ecological Consultant and has undertaken numerous Preliminary Ecological Appraisals and further Phase 2 surveys on urban and sub-urban sites in London and Surrey.

3.24 Mike Harris has a Bachelor's degree in Environmental Biology (BSc Hons), a Natural England Great Crested Newt Licence (2015-17819-CLS-CLS) and Dormouse Licence (2016-21291-CLS-CLS), is a Chartered Environmentalist (CEnv) and is a Full member of CIEEM. Mike has over 17 years' experience in ecological surveying and has undertaken and managed numerous ecological surveys and assessments.

3.25 This report was written by Daniel Perlaki and reviewed and verified by Mike Harris 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

3.26 The PEA was undertaken during an optimal time of year during suitable conditions by a suitably qualified ecologist.

3.27 Residential gardens were not accessible during the survey. Habitats classification has been assumed based on observations whilst on site and satellite images.

3.28 Additionally, an underground parking/storage area is present across much of the site. Access could not be gained into these areas. This lack of access was taken into consideration when making recommendations for further survey.

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

# 4.0 RESULTS

## DESKTOP REVIEW

### Designations

4.1 Consultations with the local biological record centre (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, seven statutory designated sites within a 2km radius. This includes three Local Nature Reserves (LNRs), one Special Area of Conservation (SAC), one National Nature Reserve (NNR) and two Sites of Special Scientific Interest (SSSIs).

4.3 Records from GiGL also identified ten non-statutory Sites of Importance for Nature Conservation (SINCs) within 2km of the site boundary. SINCs are recognised by LPAs as important wildlife sites and their protection is a material consideration in the planning process.

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 | | |
| Richmond Park SAC | 2km north | Richmond Park has been managed as a royal deer park since the seventeenth century, producing a range of habitats of value to wildlife. In particular, Richmond Park is of importance for its diverse deadwood beetle fauna associated with the ancient trees found throughout the parkland. Many of these beetles are indicative of ancient forest areas where there has been a long continuous presence of over-mature timber. The site is at the heart of the south London centre of distribution for stag beetle (Lucanus cervus). |
| Richmond Park SSSI | 2km north | Richmond Park has been managed as a royal deer park since the seventeenth century, producing a range of habitats of value to wildlife. In particular, Richmond Park is of importance for its diverse deadwood beetle fauna associated with the ancient trees found throughout the parkland. In addition the Park supports the most extensive area of dry acid grassland in Greater London. |
| Bushy Park and Home Park SSSI | 2km west | Bushy Park and Home Park SSSI is of special interest for its nationally important saproxylic (dead and decaying wood associated) invertebrate assemblage, population of veteran trees and acid grassland communities. These features occur within and are supported by the wider habitat mosaic.<br>The saproxylic invertebrates include those associated with heartwood decay, bark and sapwood decay and with fungal |

| Site Name | Approximate Location | Description |
|---|---|---|
| | | fruiting-bodies found within the veteran trees which are located throughout the site, notably in the large areas currently managed as wood pasture. Lowland dry acid grassland communities present include National Vegetation Classification (NVC) types U1 sheep's fescue (Festuca ovina)-common bent (Agrostis capillaris)-sheep's sorrel (Rumex acetosella) grassland and U4 sheep's fescue-common bent -heath bedstraw (Galium saxatile) grassland community which are found within the grassland mosaic of the site. |
| Richmond Park NNR | 2km north | Richmond Park is London's largest NNR. It is notable for its rare beetles which feed on dead and decaying wood.<br>Main habitats: woodland, lowland grassland<br>Management: the reserve is owned and managed by The Royal Parks |
| Raeburn Open Space LNR | 1km southeast | Raeburn Open Space is one of the few remaining relics of the Berrylands estates past agrarian use. Part of the site was previously temporary allotments. The site consists of rough grassland, tall herbs, overgrown hedgerows and young trees, along with a narrow belt of trees along the riverside and an area of amenity grassland. Eleven species of butterfly have been recorded as have a variety of bird species. The site is valuable as a strategic link between the Hogsmill River Park and the green corridor leading to The Wood and Richard Jeffries Bird Sanctuary. |
| Rose Walk LNR | 1km southeast | No information on designation. Forms part of The Hogsmill River Park |
| Elmbridge Open Space LNR | 1.2km southeast | No information on designation. Forms part of The Hogsmill River Park |
| Non-Statutory | | |
| Kingston Cemetery SINC (Local importance) | 20m south | Kingston Cemetery was opened in 1855 on what were previously the fields of Bonner Hill. Prior to this, all burials had taken place in Kingston Churchyard and the overflow site in Union Street. The latter has now become the Memorial Gardens. Kingston Cemetery lies between Kingston town centre and Norbiton, in an area of high-density housing. The Hogsmill River runs along its southern side, where there is a narrow strip of woodland. This area adjacent to the riverbank is rather scruffy, with litter and rubbish lying around, and the overgrown vegetation makes it difficult to reach the riverbank. It provides a variety of scrubby, tall herb and ruderal habitats, which is no doubt home to a range of wildlife. Just across the river is the Hogsmill Valley Sewage Works.<br>The remainder of Kingston Cemetery consists largely of well-tended graves, but with a variety of localised habitat features. There are many pedunculate oaks (Quercus robur), mainly growing in lines, and some of which may predate the cemetery. These are likely to be of importance to the bats and birds that have been recorded from the area, as well as for invertebrates. The grassland is mostly closely cut, but retains some diversity, particularly to the east of the site, where red fescue (Festuca rubra) and red clover (Trifolium pratense) are found. |

| Site Name | Approximate Location | Description |
|---|---|---|
| Hogsmill River in Central Kingston SINC (Local importance) | 300m southwest (at nearest point) | Upstream, the river in the town centre runs between vertical concrete banks, as it passes beneath various road bridges and between the buildings of the Guildhall complex. Downstream of the Clattern Bridge, on the north bank of the river, a fig tree (Ficus carica) has established a precarious hold through the concrete.<br><br>Although the artificial nature of the banks through the town centre otherwise mostly precludes vegetation getting a roothold, there are places where gravely margins remain, such as upstream where the river passes over a weir. Beyond the weir, fennel pondweed (Potamogeton pectinatus) occurs. The banktop vegetation includes crack willow (Salix fragilis), ash (Fraxinus excelsior), and honeysuckle (Lonicera periclymenum) as well as naturalised species such as rosemary (Rosemarinus officinalis). |
| Hogsmill Valley Sewage Works and Hogsmill River SINC (Borough grade I importance) | 300m south | This site includes part of an active sewage works and the adjacent length of the River Hogsmill, comprising several open lagoons and various connecting habitats consisting of mown grassland, scrub and tall herb stands. The River Hogsmill is mostly in an artificial channel but its wider corridor here is predominantly wooded, providing important seclusion for breeding and wintering birds. The former has included lapwing (Vanellus vanellus), redshank (Tringa tetanus), sand martin (Riparia riparia), grey wagtail (Motacilla cinerea), kingfisher (Alcedo atthis), water rail (Rallus aquaticus), reed bunting (Emberiza schoeniclus) and the nationally rare little ringed plover (Charadrius dubius). Large numbers of swifts (Apus apus), swallows (Hirundo rustica) and martins (Delichon urbicum) feed over the site in summer. Important wintering and passage species include teal (Ana crecca) and other wildfowl, common and jack snipes (Gallinago gallinago, Lymnocryptes minimus), and green and common sandpipers (Tringa ochropus, Actitis hypoleucos). There is also an important gull (Larus spp.) and cormorant (Phalacrocorax carbo) roost. The site is important for foraging bats and is one of the few known sites in the area supporting slow-worms (Anguis fragilis). The non-operational parts of the site are managed by Thames Water as a nature reserve. |
| Coombe Wood Golf Course SINC (Borough grade II importance) | 900m northeast | This golf course has an important area of acid grassland, as well as scrub, woodland and some neutral grassland. Bents (Agrostis spp.) and fescues (Festuca spp.) characterise the relict acidic swards, together with sheep's sorrel (Rumex acetosella) and some bare and lichen-dominated gaps. More neutral grassland supports lady's bedstraw (Galium verum) and common bird's-foot-trefoil (Lotus corniculatus). Scrub contains both common gorse (Ulex europaeus) and broom (Cystisus scoparius), a reminder of the area's past as a common supporting heathland. |

### 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 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

4.9 The London BAP is divided into Species Action Plans (SAPs) and Habitat Action Plans (HAPs) focusing on species and habitats requiring conservation within the Greater London Area. Of particular note are:

- Bats SAP;
- House sparrow SAP;
- Stag beetle SAP;
- Parks and Urban Green Spaces HAP;
- Private Gardens HAP; and
- Built structures.

4.10 The Royal Borough of Kingston upon Thames does not have an operational BAP, therefore the London BAP applies in this instance.

Species Record

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

- Reptiles including slow worm and grass snake (Natrix helvetica);
- Birds including swift, house martin, kestrel (Falco tinnunculus), swallow, herring gull (Larus argentatus), lesser black-backed gull (Larus fuscus), grey wagtail, spotted flycatcher (Muscicapa striata), house sparrow (Passer domesticus), dunnock (Prunella modularis), bullfinch (Pyrrhula pyrrhula), starling (Sturnus vulgaris) and song thrush (Turdus philomelos);
- West European hedgehog (Erinaceus europaeus);

- Bats including serotine (Eptesicus serotinus), Daubenton's (Myotis daubentonii), natterer's (Myotis nattereri), Leisler's (Nyctalus leisleri), noctule (Nyctalus noctula), Nathusius' pipistrelle (P. nathusii), soprano pipistrelle (P. pygmaeus), common pipistrelle (P. pipistrellus) and brown long-eared bat (Plecotus auritus);
- Stag beetle (Lucanus cervus); and
- Marbled white butterfly (Melanargia galathea).

4.12 The species listed above are primarily those known to be in the area that may be impacted by Proposed Development, 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

4.13 The following is based upon information gathered during the ecological walkover surveys undertaken in June 2019. An update walkover of the site was also conducted in October 2020, given the time that had lapsed. The October 2020 survey concluded that there had been no significant change to the habitats on site or the ecological value assigned during the June 2019 surveys and that the recommendations and conclusions remained robust and valid.

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:

- Buildings/hardstanding (J3.6);
- Scattered trees (A1);
- Dense scrub (A2.1);
- Amenity grassland (J1.2); and
- Introduced shrub (J1.4).

4.15 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:

#### Target Notes

4.16 Target notes have been used to illustrate and describe ecological features of the site and provide more detail on the above habitat classifications. Target note locations are shown of Figure 1.

<u>Target Note 1</u>

4.17 Target note 1 describes the two-storey terraced house units. These are of brick construction with pitched tile roofs and hanging clay tile facias. Each unit also has a flat

roof garage. These are relatively uniform across the site with numerous broken, missing or raised hanging tiles.

Target Note 2

4.18 Target note 2 describes the hardstanding across the site. Sealed surfaces across the site are varied, including asphalt roads, paving slabs, hard-surfaced play areas and carparks. Much of the hardstanding has under-croft parking beneath it which was not accessible during the survey.

4.19 Mortar and cracks in hardstanding has allowed some early colonising/ruderal plants to establish including willowherb (Epilobium sp.), Canadian fleabane (Erigeron canadensis), ornamental Euphorbia sp., knotgrass (Polygonum aviculare), chickweed (Stellaria media), dandelions (Taraxacum spp.), smooth sow-thistle (Sonchus oleraceus), black medick (Medicago lupulina), greater plantain (Plantago major), wall rocket (Diplotaxis tenuifolia), green alkanet (Pentaglottis sempervirens) and fat hen (Chenopodium album). These occur sporadically and inconsistently across the site.

Target Note 3

4.20 Target note 3 describes the amenity grassland across the site. This is present in a large park area to the north of site, roadside verges, play areas and gardens. This is all mown to a uniform low level across the site. Areas of heavy pedestrian use show erosion and bare ground. Species present include wall barley (Hordeum murinum), ryegrass (Lolium perenne), smooth sow-thistle, bristly oxtongue (Helminthotheca echioides), common daisy (Bellis perennis), dandelions, shepherd's purse (Capsella bursa-pastoris), chickweed, yarrow (Achillea millefolium), Geranium spp., creeping buttercup (Ranunculus repens), ribwort plantain (Plantago lanceolata) and birds-foot trefoil (Lotus corniculatus).

Target Note 4

4.21 Target note 4 describes the introduced shrub habitat across the site. This has been used to describe the gardens across the site which are not turfed over. As such, there is much variation across the site in the species composition of this habitat, particularly owing to the different uses of the spaces and non-native ornamental species present.

4.22 Species recorded include bramble (Rubus fructicosus agg.), mugwort (Artemesia vulgaris), variegated hollies (Ilex aquifolium), Dracaena trees, Clematis spp., Geranium spp., common mallow (Malva neglecta), poppies (Papaver spp.), ornamental bamboos (Bambusoidaea spp.), roses (Rosa spp.), New Zealand flax (Phormium tenax), broad-leaved sweet pea (Lathyrus latifolius), cherry laurel (Prunus laurocerasus), cabbage (Brassica oleracea), beetroot (Beta vulgaris), Lady's mantle (Alchemilla vulgaris), lilac (Syringa sp.), Japanese maple (Acer palmatum), star jasmine (Trachelospermum

jasminoides), lavender (Lavandula angustifolia), rosemary (Rosmarinus officinalis) and white stonecrop (Sedum album).

Target Note 5

4.23 Target note 5 describes a small patch of dense scrub habitat towards the east of the site. It is composed of bramble, sycamore (Acer pseudoplatanus) saplings, old man's beard (Clematis vitalba), firethorn (Pyracantha sp.) and creeping thistle (Cirsium arvense). There is a potential fox den present within this patch of scrub.

Target Note 6

4.24 Target note 6 describes the scattered trees across the site. Species include London plane (Platanus x hispanica), sycamore (Acer pseudoplatanus), lime (Tilia x europaea), birch (Betula pendula), Lawson cypress (Chamaecyparis lawsoniana), cherry (Prunus avium), beech (Fagus sylvatica), false acacia (Robina pseudoacacia), elder (Sambucus nigra), Corsican pine (Pinus nigra), whitebeam (Sorbus aria), hawthorn (Crataegus monogyna), goat willow (Salix caprea), weeping willow (Salix x chrysocoma), horse chestnut (Aeseculus hippocastanum), hybrid black poplar (Populus serotine) rowan (Sorbus aucuparia), tree-of-heaven (Ailanthus altissima), oak (Quercus robur), common alder (Alnus glutinosa), Norway maple (Acer platanoides) and an unidentified palm.

4.25 There is significant variation between the quality and value of the trees across the site. Further detail on the trees across site can be found in the stand alone Arboricultural Assessment.

## Detailed description of Site: Species

### Badger

4.26 Badgers have not been recorded within 2km of the site since 2012. Additionally, habitats present on the Cambridge Road Estate offer a poor foraging resource and the site is poorly connected to other habitats and sites of value. Therefore, it is considered highly unlikely that badgers would use the site.

4.27 No evidence of badgers was recorded during the site visit. Accordingly, the site is considered to have negligible potential to support badgers.

### Bats

Foraging and Commuting

4.28 High levels of external street lighting are present on site, which is likely to deter the majority of bat species from using the site. Additionally, habitats on the site are common and widespread in the area and are likely to be of limited value for foraging bats. Additionally, habitats adjacent the site and in the wider landscape are more likely to

attract foraging bats present in the area, including the cemetery and Hogsmill River just south of the site.

4.29 However, the varied nature of the introduced shrub habitat means certain areas are likely to attract invertebrate prey for foraging bats. Additionally, alleys and tree lines on site provide linear landscape features which may be of benefit for navigating bats. As such, the site is considered to have low potential to support foraging bats.

Roosting

4.30 Features with the potential to support roosting bats were recorded across the site. The most common and notable features are hanging clay tiles on the two-storey terraced houses. Across the site there are multiple properties with broken, missing or raised hanging tiles, which could provide crevices and access to small cavities behind tiles, potentially of value to Pipistrelle spp.. Other potential roosting features recorded include:

- A hole in a soffit box of a two-storey buildings off Cambridge Grove Road;
- Missing/broken bricks on the four-storey blocks off Burritt Road;
- Lifted pitched roof/ridge tiles on three-storey units of Cambridge Grove Road;
- Gaps leading into an underground storage/parking area;
- Lifted ridge tile on the more recently constructed units on Willingham Way; and
- Lifted wooden cladding on Piper Hall.

4.31 The underground parking/storage areas were not inspected internally, therefore the presence of potential roosting features within these areas could not be assessed. Therefore, they were considered to have potential to support roosting bats as a precaution.

4.32 Whilst the roosting features are of low suitability and generally confined to small numbers per building, owing to the total number of potential roosting features, the site as a whole was considered to have moderate potential to support roosting bats.

Great Crested Newt

4.33 There are two records for GCN within 2km of the site, however both of which are >700m away. There are no suitable breeding ponds on the site, or within 500m and terrestrial habitat on the site itself is of negligible value for GCN, owing to a lack of structure, cover and potential refugia. Accordingly, the site is considered to have negligible potential to support GCN.

Reptiles

4.34 There are biological records for slow worm within 1.2km of the site and records for grass snake within 400m of the site. It is considered likely that these records are associated with the cemetery and Hogsmill River/sewage treatment works to the south.

4.35 Terrestrial habitat on site is of limited value for reptiles, with all grass areas mown very close to ground level and regularly maintained. Additionally, the private gardens are limited in extent and disconnected, limiting the likelihood of suitability for reptile populations. As such, the site is considered to have negligible potential to support reptiles.

Dormouse

4.36 There is no suitable habitat on site to support dormice.

Water Vole and Otter

4.37 There is no suitable habitat on site to support water voles and otters.

Birds

4.38 Foraging habitat on site is limited to the introduced shrub habitat within residential gardens and berry trees across the site and the large areas of amenity grassland. However, these habitats are common, widespread and not likely to be of value at beyond site level.

4.39 Nesting opportunities on site are found within trees across the site, atop the flat roofs of the tower blocks and within the small patch of scrub habitat (see target note 5). Additionally, some of the missing hanging clay tiles were being used by nesting house sparrow.

4.40 During the site survey, the following species were recorded:

- House sparrow;
- Ring-necked parakeet (Psittacula krameria);
- Jackdaw (Corvus monedula);
- Carrion crow (Corvus corone);
- Blue tit (Cyanistes caeruleus);
- Feral pigeon (Columba livia domestica);
- Wood pigeon (Columba palumbus);
- Blackbird (Turdus merula); and
- Robin (Erithacus rubecula).

4.41 During the site visit, it was observed that the tower blocks were being used as perches by large numbers of jackdaw. The cemetery appears to support a large flock of jackdaws which frequently use the site.

4.42 Overall the site has confirmed presence of nesting house sparrow and high potential to support other nesting/foraging birds.

### Invertebrates

4.43 The site is located within 2km of a significant stag beetle population, and there are biological records of stag beetle within 100m of the site. Despite moderate levels of tree cover across the site, there is no woodland habitat and very little deadwood to provide a resource for stag beetle larvae.

4.44 Records for notable lepidoptera and other pollinators are scarce, and those recorded within 2km of the site are unlikely to be found on habitats present within the site itself. However, this does not confirm their absence and the gardens across site are likely to provide a nectar/pollen source for pollinators despite being common and widespread habitats in the immediate locale.

4.45 The site is considered to have low potential to support invertebrates.

### Protected Plant Species

4.46 No protected plant species were recorded on the site visit.

### Invasive/Non-native species

4.47 No invasive/non-native species listed on Schedule 9 of the Wildlife and Countryside Act (as amended) 1981 were recorded on the site. However, a stand of Japanese knotweed (Fallopia japonica) was identified <200m southeast of the site.

4.48 A number of species listed on the London Invasive Species Initiative's (LISI) Species of Concern lists were recorded during the site visit, notably tree-of-heaven (Ailanthus altissima), Buddleja davidii and cherry laurel.

### Other BAP Species

4.49 There are numerous records of hedgehog within 1km of the site, and the gardens may provide suitable foraging habitat. However, the gardens are isolated from each other, limited the extent of suitable habitat. The site is considered to have low potential to support hedgehog.

### Fox

4.50 A potential fox (Vulpes vulpes) earth was identified in the small patch of scrub to the east of the site. It is considered highly likely that foxes forage on the site owing to its suburban setting and external bin stores.

# 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 the Proposed Development, 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 | Nearest is 1km from site | No construction phase impacts are predicted owing to the distance from the site and presence of significant physical barriers. It is important to note that any future development will be phased and undertaken on individual plots.<br>Operational phase impacts could potentially arise associated with the increased local population and footfall within statutory designated sites. This is mitigated by the inclusion of external recreational areas within the site itself, and the high levels of outdoor recreation areas present in the area. |
| Designated Sites: Non-Statutory | Present within 20m of the site | The closest non-statutory designation is Kingston Cemetery SINC. All other SINCs are >300m from site and are unlikely to be adversely affected by construction phase impacts.<br>As the development is to occur in a phased approach within an already highly urbanised area, it is considered unlikely that the Proposed Development will arise in significant adverse impacts upon Kingston Cemetery SINC during construction phase. A Construction Environment Management Plan (CEMP) should be produced to detail mitigation relating to construction phase impacts upon Kingston Cemetery SINC. |
| Foraging bats | Low potential | The Proposed Development has the potential to impact foraging bats during the construction phase through the loss of foraging habitat. As such, compensatory planting and a bat sensitive lighting strategy are recommended.<br>Further surveys are recommended to determine the value of the site for foraging bats and the results of these surveys should be used to further inform mitigation and enhancement measures |

| Receptor | Presence/Potential Presence | Comments |
|---|---|---|
| Roosting bats | Moderate potential | The Proposed Development includes the demolition of all buildings present across the site. This has the potential to permanently destroy bat roosts and injure or kill bats, should roosts be found to be present.<br>As such, emergence/re-entry surveys are recommended to confirm the presence/likely absence of roosting bats and to assess likely impacts associated with the development. This will allow the identification of suitable mitigation and enhancement for roosting bats and further inform any proposed mitigation and enhancement measures. |
| Birds | Confirmed present | Demolition of buildings, general site clearance and the removal of some trees has the potential to destroy active bird nests, remove existing suitable perching habitat, in particular for jackdaws, and remove/reduce the availability of forging habitat.<br>Timing vegetation clearance and/or demolition works outside of nesting season, where possible, is recommended to avoid impacts to nesting birds. Where this is not possible, any potentially suitable nesting habitat should be checked for the presence of active nests prior to any clearance work being undertaken.<br>Perching habitat will be replaced through the development of new residential buildings on the site and the extensive landscaping proposed across the site as part of the future development will more than adequately mitigate the loss of bird foraging habitat.<br>In addition to the above, a CEMP should be produced for each phase of the development which details measures that will be put in place to minimise and mitigate any potential impact from increased noise, dust and other emissions on the ecological receptors on site and in the wider surrounding area, including the population of jackdaw in the adjacent Kingston Cemetery. |

| Receptor | Presence/Potential Presence | Comments |
|---|---|---|
| Invertebrates | Low potential | Vegetation clearance on site at the start of each individual plot will remove habitat that has value, albeit relatively low value, for notable invertebrate, in particular stag beetle. However, the Proposed Development includes extensive landscaping including multiple biodiversity focused living roof and invertebrate enhancement features including dead wood habitat. Therefore, any impact from site clearance will be more than adequately mitigated through the creation of significantly better habitat post development. As the development will be delivered in individual plots over multiple phases, there will always be habitat suitable for notable invertebrate available on site. |
| Invasive/Non-native species | Confirmed present | Japanese knotweed is not present on site. However, it is present within 200m of the site, therefore it is recommended that the CEMP includes details on biosecurity measures that should be adhered to during construction phases to prevent the spread of Japanese knotweed.<br>Three LISI species of concern (category 3) were identified within the site. These should be removed during site clearance and disposed of appropriately. |
| Other BAP species | Low potential | The site has low potential to support hedgehog. Hedgehogs could be impacted during site clearance. A destructive hand search of potentially suitable hedgehog refugia should be undertaken by an ecologist prior to clearance of introduced shrub habitat. |
| Fox | High potential | Whilst foxes are not protected under any biodiversity conservation legislation, the Wild Mammals (Protection) Act 1996 makes it an offense to crush or asphyxiate any wild mammal. As there is a potential fox earth on site, it should be confirmed that there are no foxes within the earth that could be subject to crushing during site clearance. |

## 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.

5.3 In addition to the survey elements mentioned above, it is recommended that a high level, overarching Ecological Mitigation Plan is prepared for the site. The site wide EMP would detail the high-level ecological mitigation and enhancement measures to be

implemented on site as part of the development. Individual Plot/Phase EMPs could then be produced with specific detail for that plot/phase using the high-level information from the site wide EMP. This approach would allow for a consistent approach to ecological mitigation and enhancement across the site, ensuring the measures implemented work both at the individual plot/phase level and at the wider site level.

## Designated sites

### Statutory

5.4 There are no predicted impacts during site preparation/construction owing to the distance from the site and presence of physical barriers.

5.5 Potential operational impacts are limited to increased footfall. This is not considered a significant impact. The proposed development site is already residential in nature; therefore, the local population will not increase significantly. The Proposed Development includes provision of outdoor amenity areas within the site itself. Additionally, there is a strong provision of outdoor recreational spaces within the vicinity of the site, spreading footfall. Finally, all statutory designated sites within 2km, particularly Richmond Park and Bushy Park, are already subjected to very high visitation levels and subsequent disturbance with the management measures implemented at each of the site taking into consideration the recreational value these sites provide. The proposed redevelopment of Cambridge Road Estate is not expected to increase this disturbance significantly.

### Non-Statutory

5.6 The only non-statutory designated site which may stand to be impacted during site preparation/construction is Kingston Cemetery SINC, which is a site of local importance. Impacts upon the SINC are considered highly unlikely owing to the phased approach to the Proposed Development and the location of the site in an urbanised area. Production of a CEMP is recommended to detail measures to minimise construction phase impacts.

5.7 See paragraph 5.6 relating to operational impacts.

## Bats

### Foraging

5.8 Before an assessment of impacts upon foraging bats can be undertaken, bat activity surveys should be undertaken to understand the ways in which bats use the site, both spatially and temporally. Bat activity surveys consisting of walked transect routes and extended periods of monitoring with static bat detectors are recommended. Owing to the site being of 'low' value for foraging bats, this should consist of a walked transect in summer (August 2019), Autumn (September/October 2019) and Spring (April/May

2020). Additionally, once per season a one-week period of monitoring using static bat detectors should be undertaken.

5.9 General recommendations for mitigation and enhancement for bats and prior to these surveys being undertaken include provision of compensatory foraging habitat through soft-landscaping proposals, biodiverse roof provision and implementation of a bat-sensitive lighting strategy during construction and occupancy. The lighting strategy should reflect best practice guidance published by the Bat Conservation Trust and Institute of Lighting Professionals (2018)[7]. This should include:

- Directional lighting, controlling light spill particularly on semi-natural habitats post-development. Use of lighting hoods and minimising the height of lighting columns on external lights will contribute to this. Recessing internal ceiling lights into the ceiling would also support this;
- Use of appropriate luminescence for the uses of the areas;
- Implementation of lighting controls to prevent illumination when not required;
- Use of 'warm white' spectrum lighting (<2700K); and
- Peak wavelengths should not be higher than 550nm to reduce the light component most harmful to bats.

### Roosting

5.10 Should they be present on site, roosting bats stand to be impacted during site clearance. As such, emergence/re-entry surveys should be undertaken to confirm the presence/likely absence of roosting bats from site. As the site is considered to have moderate potential to support roosting bats, two emergence/re-entry surveys are recommended for each potential roosting feature identified.

5.11 Results from emergence/re-entry surveys will inform the level of mitigation, compensation and enhancement required for roosting bats.

### Birds

5.12 Potential impacts upon birds exist, through destruction of nests and loss of foraging/perching habitat.

5.13 To avoid destroying nests which are in use, it is recommended that site clearance for each phase commences outside of the breeding bird season (taken to run from March-August inclusive). Areas can only be cleared when nesting birds are confirmed as absent. Where this is not possible, areas of suitable nesting habitat for birds should be checked for the presence of active nests by a suitably qualified ecologist immediately prior to them being cleared. Should an active bird nest be present the suitably qualified ecologist should advise accordingly.

5.14 Throughout site preparation and construction, much of the site will remain as existing for use by birds. As the development is to be phased, nesting, perching and foraging opportunities will be retained in the areas of the site where works have yet to commence/where works are finished. Furthermore, 66% of the trees existing on site will be retained including all of the Category A trees and more than 70% of the Category B trees.

5.15 A CEMP should be produced to detail measures to mitigate construction phase impacts. This will be sufficient to mitigate impacts upon jackdaws using the site.

5.16 Each development phase should provide compensatory nesting and foraging habitats through incorporation of nest boxes suitable for species known to be nesting at site pre-development (house sparrows) and through provision of soft-landscaping and biodiverse roofs.

5.17 As house sparrows are known to be nesting on site and are subject to a London SAP, the Proposed Development should align with the objectives of the SAP. Specifically, Action 2.5 of the SAP is to:

"Promote the involvement of the public in constructing a large number of sparrow nest boxes in London through establishing 'sparrow champions' in London boroughs."

### Invasive/Non-native species

5.18 The CEMP, which should be secured through planning condition, should include biosecurity measures to prevent the spread of invasive species onto the site.

5.19 Site clearance should include the removal of tree-of-heaven, cherry laurel and Buddleja davidii where possible.

5.20 Any soft landscaping associated with the Proposed Development should incorporate native species of known wildlife value. Species from the LISI Species of Concern list should be avoided.

### BAP Species

5.21 During site clearance of habitat with potential to support hedgehog (introduced shrub/scrub), contractors should watch for hedgehog. Should a hedgehog be discovered, works should cease until the individual has been moved to a suitable area of habitat that is not predicted to be impacted by the current phase of the development.

5.22 Hard and soft landscaping should be designed with hedgehog in mind. Specifically, soft-landscaped areas should be connected within the site, and to potential habitat outside of the development site boundary. Fences should have holes cut at the bottom to facilitate hedgehog movement across the site.

### Fox

5.23 Subsequent PEAs for each phase will include an active search for fox earths/dens. Should any fox earths/dens be identified during site clearance of any phase, these should be excavated by hand to prevent injury to foxes.

### Ecological Enhancement

5.24 In order to comply with emerging planning policy and best practice guidance, ecological enhancements of the site are required to demonstrate biodiversity net gain (BNG) on-site where possible. This must take the form of area-based habitat creation, creation of linear habitat and integrated urban green infrastructure solutions. Specifically:

- All suitable flat roof areas should incorporate extensive, substrate-based biodiverse roofs, where possible. These should be seeded, and plug planted with suitable species mixes on a low-nutrient substrate. This should also be installed under PV arrays on roof areas set aside for energy generation as integrated bio-solar solutions exist;
- Further enhancement of biodiverse roofs should include provision of log-piles to provide a food source for stag beetle larvae. Sandy piles, rock piles and water trays should also be incorporated to provide nesting opportunities for aculeate hymenoptera and further habitat diversity;
- Recreational areas where amenity grassland would typically be incorporated should feature wildflower turf to improve the floral diversity of these areas; and
- Diverse, native tree-planting should be included across the site taking into account the wider ecosystem services benefits of trees utilising best practice guidance[8].

5.25 In addition to the above measures to deliver BNG and the compensation outlined for protected species above, additional bird and bat boxes for suitable species known to be present should be incorporated into the built form of new buildings across the site.

5.26 Demonstration of delivery of BNG is provided in a standalone report (ref: 551291dpNov19FV02_BIA). The measures to deliver BNG should be secured through planning condition.

# 6.0 SUMMARY & CONCLUSION

6.1 Greengage was commissioned by Cambridge Road (RBK) LLP to undertake a Preliminary Ecological Appraisal of the Cambridge Road Estate in order to establish the ecological value of this site and its potential to support notable and/or legally protected species.

6.2 The site is dominated by common and widespread habitats with limited ecological value. Where the PEA identified value for a number of notable and protected species and habitats, key mitigation, compensation and enhancement actions have been outlined to enable legislative and policy compliance (see context at Appendix 2) and to ensure protection and habitat enhancement within the completed development. Additionally, the key mitigation, compensation and enhancement actions aim to achieve net gains in biodiversity for the site. A separate report evidencing BNG has been produced (ref: 551291dpNov19FV02_BIA).

6.3 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

# CAMBRIDGE ROAD ESTATE

Masterplan Site Boundary

Target Notes

**Habitats**

A2.1 - Scrub - dense/continuous

J1.2 - Cultivated/disturbed land - amenity grassland

J1.4 - Introduced shrub

J3.6 - Buildings

J3.6.1

0 100 200 300 400 m

N

Greengage

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## Fig 1.0 Phase 1 Habitat Map

Project Number 551291
November 2020
1 to 1,500 at A3
Basemap Data: Google Earth

# APPENDIX 1 SITE PHOTOGRAPHS

Photograph 1 – Large areas of the site are dominated by sealed surfaces

Photograph 2 – Amenity grassland habitats closely mown and managed

Photograph 3 – Two-storey terrace housing with hanging clay tiles

Photograph 4 – Four-storey flats

Photograph 5 – Tower blocks

Photograph 6 – Scattered trees present across much of the site

Photograph 7 – Piper Hall Community Centre

Photograph 8 – House sparrows nesting under hanging clay tiles

# 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 2019 ('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 Proposed Development 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: Spatial Development Strategy for Greater London[23]

The London Plan is comprised of separate chapters relating to a number of areas, including London's Places, People, Economy and Transport. The following policies have been identified within the London Plan, which relate specifically to ecology and this development.

Policy 2.18 Green Infrastructure

Policy 2.18 aims to protect, promote, expand and manage the extent and quality of, and access to, London's network of open and green spaces.

Policy 5.10 Urban Greening

This policy encourages the 'greening of London's buildings and spaces and specifically those in central London by including a target for increasing the area of green space (including green roofs etc) within the Central Activities Zone'.

Policy 5.11 Green Roofs and Development Site Environs

Policy 5.11 specifically supports the inclusion of planting within developments and encourages boroughs to support the inclusion of green roofs.

Policy 5.13 Sustainable Drainage

Policy 5.13 promotes the inclusion of sustainable urban drainage systems in developments and sets out a drainage hierarchy that developers should follow when designing their schemes.

Policy 7.19 Biodiversity and Access to Nature

'The Mayor will work with all the relevant partners to ensure a proactive approach to the protection, enhancement, creation, promotion and management of biodiversity in support of the Mayors Biodiversity Strategy.'

The Draft New London Plan (emerging)

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. Where harm to a SINC (other than a European (International) designated site) is unavoidable, the following approach should be applied to minimise development impacts:

    1. avoid adverse impact to the special biodiversity interest of the site
    2. minimise the spatial impact and mitigate it by improving the quality or management of the rest of the site
    3. seek appropriate off-site compensation only in exceptional cases where the benefits of the development proposal clearly outweigh the biodiversity impacts.

D. Biodiversity enhancement should be considered from the start of the development process.

E. Proposals which create new or improved habitats that result in positive gains for biodiversity should be considered positively, as should measures to reduce deficiencies in access to wildlife sites.

Policy G7 Trees and woodlands

C. 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[24]

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

### Kingston Core Strategy

Policy CS 3 - The Natural and Green Environment

The Council will protect and improve Kingston’s valued natural and green environment by:

a. seeking to ensure that residents have access to an interconnected network of safe, well managed and maintained areas of open space through the implementation of routes in the ’South West London Greenways Network Expansion - Feasibility Report’, Kingston’s Green Spaces Strategy, Park Management Plans and Annual Implementation Plans

b. protecting Kingston’s open space network from inappropriate development through its open spaces designations; Green Belt, Metropolitan Open Land (MOL), Thames Policy Area, Sites of Importance for Nature Conservation (SINCs), Local Nature Reserves, Local Open Space, School Open Spaces, Green Corridors, Green Chains and Allotments, as shown on the Proposals Map

c. facilitating regeneration, infrastructure upgrades and environmental improvement to the Hogsmill Environs

d. incorporating appropriate elements of public open space into new developments and/or making a financial contribution to improving existing open spaces, with additional facilities and better management to Green Flag standards

e. promoting the management of biodiversity in light of the threats arising from climate change and future development growth, by working in partnership with a range of organisations on projects to protect and enhance Kingston’s Open Space Network. This will not only provide increased wildlife habitats, but will also link wider parts of Kingston, allowing easier movement and reducing isolation of habitats.

Policy DM 6 - Biodiversity

The Council will:

a. ensure new developments protect and promote biodiversity as part of sustainable design, through the inclusion of sustainable drainage, tree planting, soft landscaping, habitat enhancement and/or improvement, green roofs and new or improved semi-natural habitats, where appropriate

b. require an ecological assessment on major development proposals, or where a site contains or is next to significant areas of habitat or wildlife potential. This should be completed before design work or submission of the planning application.

c. ensure that new development does not result in a net loss of biodiversity and, where appropriate, should include new or improved habitats and provision for natural and semi-natural public green space, as set out in the Planning Obligations SPD or Community Infrastructure Levy charge.

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Mark Ludlow
Countryside Properties Ltd
By email only

Date: 16th October 2020
Our ref: 551291dpOct20FV01_PEA_Update

Dear Mark

Cambridge Road Estate – Updated Ecological Site Walkover

Greengage Environmental Ltd were appointed by Cambridge Road (RBK) LLP to undertake an updated ecological site walkover of the Cambridge Road Estate in the Royal Borough of Kingston upon Thames. The walkover was undertaken to confirm whether the findings of the Preliminary Ecological Appraisal (PEA) undertaken by Greengage in June 2019 are still considered valid and identify any change in the ecological value of the site.

This walkover survey was undertaken in support of a hybrid Outline Planning Application for a mixed use development, including demolition of existing buildings and erection of up to 2,170 residential units (Use Class C3), 290sqm of flexible office floorspace (Use Class E), 1,395sqm of flexible retail/commercial floorspace (Use Class E/Sui Generis), 1,250sqm community floorspace (Use Class F2), new publicly accessible open space and associated access, servicing, landscaping and works.

The survey followed an abbreviated version of the Phase 1 Habitat Survey methodology[1]. The extents of habitats mapped during the 2019 PEA were checked in addition to the condition of habitats, using the condition assessment methodology set out in the DEFRA Biodiversity Metric 2.0 Technical Supplement[2]. The updated walkover was undertaken on Monday 12th October 2020.

Based on the findings of the survey, Greengage can confirm that there have been no significant changes in the ecological status of the site. Habitats are the same in type and extent as described in the PEA report (ref: 551291dpNov19FV01_PEA). There were no significant changes in species composition of the habitats or changes in the condition assessment criteria for each habitat type. Additionally, no further evidence of the potential for the site to support notable and/or protected species was identified beyond that described in the PEA report.

The Phase 1 Habitat Map is shown in Figure 1 and site photos are provided in Appendix 1.

Given the lack of change in site ecology, conclusions drawn from the 2019 PEA report are considered valid and robust. Full condition assessments for habitats on site are set out in the Biodiversity Impact Assessment (BIA) report (ref: 551291dpOct20FV01_BIA).

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Yours sincerely

Daniel Perlaki

Ecological Consultant

For and on behalf of Greengage Environmental Ltd

FIGURE 1 PHASE 1 HABITAT MAP

# CAMBRIDGE ROAD ESTATE DRAFT

Approx Red Line Boundary

**Habitats**

- J1.2 - Cultivated/disturbed land - amenity grassland
- J1.4 - Introduced shrub
- J3.6 - Buildings
- J3.6.1 - Hardstanding

1
2
3
4
5
6

0 100 200 300 400 m

N

Greengage

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## Fig 1.0 Site Plan and Habitat Map

Project Number 551292
September 2019
1 to 1400 at A3

## APPENDIX 1 SITE PHOTOGRAPHS

Photograph 1 – Amenity grassland habitat with scattered trees

Photograph 2 – Buildings with hanging clay tiles provide nesting opportunities for birds such as house sparrow (*Passer domesticus*)

Photograph 3 – Hardstanding across the site is the most common habitat

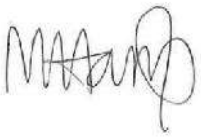
Photograph 4 – There are limited areas of planting beyond amenity grassland on site

Greengage

Cambridge Road Estate, Cambridge Road (RBK) LLP
Bird Survey Report - November 2020

# QA

## Cambridge Road Estate – Bird Survey Report

| | | |
|---|---|---|
| Issue/Revision: | Draft | Final |
| Date: | August 2020 | November 2020 |
| Comments: | | |
| Prepared by: | Daniel Perlaki | Daniel Perlaki |
| Signature: |  |  |
| Authorised by: | Mike Harris | Mike Harris |
| Signature: |  |  |
| File Reference: | 551291dpAug20DV01_Birds | 551291dpAug20FV02_Birds |

# CONTENTS

# 1.0 EXECUTIVE SUMMARY

1.1 Greengage Environmental Ltd was commissioned to undertake a bird survey by Cambridge Road (RBK) LLP of the Cambridge Road Estate in the Royal Borough of Kingston upon Thames.

1.2 This document is a report of this survey and has been produced to support a hybrid Outline Planning Application for a mixed use development, including demolition of existing buildings and erection of up to 2,170 residential units (Use Class C3), 290sqm of flexible office floorspace (Use Class E), 1,395sqm of flexible retail/commercial floorspace (Use Class E/Sui Generis), 1,250sqm community floorspace (Use Class F2), new publicly accessible open space and associated access, servicing, landscaping and works.

1.3 Detailed permission is sought for access, layout, scale, appearance and landscaping of Phase 1 for erection of 452 residential units (Use Class C3), 1,250sqm community floorspace (Use Class F2), 290sqm of flexible office floorspace (Use Class E), 395sqm of flexible retail/commercial floorspace (Use Class E/Sui Generis), new publicly accessible open space and associated access, servicing, parking, landscaping works including tree removal, refuse/recycling and bicycle storage, energy centre and works ("the Proposed Development").

1.4 This survey aimed to gather information on the species of bird that are present on or flying over the site, as well as to gather anecdotal evidence of bird behaviour on site e.g. nesting, foraging, territory building etc, in order to inform appropriate mitigation, compensation and enhancement actions in light of Proposed Development.

1.5 The survey identified 17 species of bird on the site, of which five are on the RSPB Birds of Conservation Concern lists as declining. Of particular note is the moderate sized colony of house sparrow (Passer domesticus) present on the site which appear to nest in common features of the built form across most building types present on the estate.

1.6 In order to ensure site preparation doesn't destroy active house sparrow nests, demolition of the buildings in possession of these potential nesting features should only be undertaken outside of the nesting season. Additionally, compensatory nesting opportunities should be installed in the immediate vicinity of these units prior to sparrow nest building. The new buildings proposed on site should also include integrated nest boxes.

1.7 The Proposed Development includes extensive areas of landscaping and public realm as well as the installation of multiple living roofs across the site. These interventions will not only adequately compensate for the loss of existing habitat but significantly increase the amount and quality of habitat for nesting and foraging birds across the site.

# 2.0 INTRODUCTION

2.1 Greengage was commissioned to undertake a bird survey by Cambridge Road (RBK) LLP of the Cambridge Road Estate in the Royal Borough of Kingston upon Thames.

2.2 This document is a report of this survey and has been produced to support a hybrid Outline Planning Application for a mixed use development, including demolition of existing buildings and erection of up to 2,170 residential units (Use Class C3), 290sqm of flexible office floorspace (Use Class E), 1,395sqm of flexible retail/commercial floorspace (Use Class E/Sui Generis), 1,250sqm community floorspace (Use Class F2), new publicly accessible open space and associated access, servicing, landscaping and works.

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2.4 This survey aimed to gather information on the species of bird that are present on or flying over the site, as well as to gather anecdotal evidence of bird behaviour on site e.g. nesting, foraging, territory building etc, in order to inform appropriate mitigation, compensation and enhancement actions in light of the Proposed Development.

## SITE DESCRIPTION

2.5 The survey area extends to approximately 9 hectares and is centred on National Grid Reference TQ190690, OS Co-ordinates 519074, 169085.

2.6 The estate is located within the Norbiton Ward in the Royal Borough of Kingston upon Thames, approximately 850m east of Kingston town centre. The site is bound to the north by A2043 – Kingston Road and to the south by Kingston Cemetery and Crematorium. The estate currently contains 823 residential homes distributed across:

- Four 15-storey residential tower blocks;
- Sixteen 5/4-storey terraced flats; and
- Numerous areas of 2-storey terraced housing.

2.7 The estate and assessment boundary also include the Bull and Bush Hotel and Pub, Piper Community Hall and a convenience shop.

2.8 The site is situated in a residential area, sub-urban in character. Residential development dominates land use to the north, east and west of the site, including a newly constructed student accommodation adjacent the site to the north. South of the site is Kingston

Cemetery, beyond which lies the Hogsmill River (300m south). Southeast of the site features outdoor recreation areas. Green infrastructure provision in the area is formed by street trees, the cemetery, Hogsmill River, recreation grounds and residential gardens.

# 3.0 METHODOLOGY

3.1 The bird survey followed an adapted version of the Common Bird Census methodology developed by the British Trust for Ornithology (BTO)[1]. The survey consisted of three survey visits undertaken through July to August 2020, with each visit undertaken two weeks apart. These visits commenced at, or within 30 minutes of dawn and lasted for a minimum of two hours.

3.2 A transect route was walked through the site, with the direction of the transect alternated for each visit. Any birds observed (either visually using binoculars or audibly) during the transect were recorded, with information relating to species, numbers, behaviour and location collected.

3.3 Data collected across the three survey visits was assessed to identify any spatial or temporal trends.

## SURVEYORS

3.4 Daniel Perlaki, who undertook the surveys at site and prepared this report, has an undergraduate degree in Ecology (BSc Hons), a Master's degree in Conservation Science and Policy and is a Graduate member of CIEEM.

3.5 Mike Harris, who reviewed this report, has a Bachelor's degree in Environmental Biology (BSc Hons), a Natural England Great Crested Newt Licence (2015-17819-CLS-CLS) and Dormouse Licence (2016-21291-CLS-CLS), is a Chartered Environmentalist (CEnv) and is a Full member of CIEEM. Mike has over 17 years' experience in ecological surveying and has undertaken and managed numerous ecological surveys and assessments.

3.6 This report was written by Daniel Perlaki and reviewed and verified by Mike Harris 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

3.7 The bird survey visits were undertaken at a sub-optimal time of year. Typically, a breeding bird survey would be undertaken between March and July, with visits spaced four weeks apart. This has limited the ability for the survey to identify early nesting sites (unless second clutches were being reared) or territories. However, one of the key aims of the survey was to ascertain the presence of house sparrow and to what extent. As house sparrows are known to have multiple clutches in a year and given their presence

recorded in moderate numbers during the survey, the undertaking of the survey outside of the optimal season is not considered to have significantly impacted up on the conclusions made, in particular with regards to house sparrow.

# 4.0 RESULTS

4.1 The survey visits identified predominantly common urban/sub-urban species, the majority of which were passerines. A survey plan is included in Figure 1 which shows locations of species recorded. A full species list is shown in Table 4.1 below.

Table 4.1 Species list

| BTO Species Code | Common Name | Scientific Name | Comment |
|---|---|---|---|
| RI | Ring-necked parakeet | Psittacula krameri | |
| GT | Great tit | Parus major | |
| JD | Jackdaw | Corvus monedula | |
| HS | House sparrow | Passer domesticus | RSPB Red List, London BAP, S41 Species |
| C. | Carrion crow | Corvus corone | |
| MG | Magpie | Pica pica | |
| R. | Robin | Erithacus rubecula | |
| BH | Black-headed gull | Chroicocephalus ridibundus | RSPB Amber List |
| FP | Feral pigeon | Columba livia domesticus | |
| GO | Goldfinch | Carduelis carduelis | |
| WP | Wood pigeon | Columba palustris | |
| SI | Swift | Apus apus | RSPB Amber List |
| J. | Jay | Garrulus glandarius | |
| CM | Common gull | Larus canus | RSPB Amber List |
| BT | Blue tit | Cyanistes caeruleus | |
| SG | Starling | Sturnus vulgaris | RSPB Red List, London BAP, S41 Species |
| WR | Wren | Troglodytes troglodytes | |

4.2 A total of 17 species were recorded, of which five appear on the RSPBs Birds of Conservation Concern list as declining (two red list and three amber list). Two of these five species, house sparrow and starling, are also London BAP species and S41 Species of Principal Importance. Four of these five species (black-headed gull, swift, common gull and starling) were observed flying over the site only.

4.3 House sparrows (Passer domesticus), a Biodiversity Action Plan (BAP) priority species were recorded in moderate numbers. These were predominantly recorded in the

southern half of the site in areas of 2- and 3-storey terraced housing. The peak count recorded on any of the survey visits was 25 individuals foraging in one location.

4.4 Whilst no direct evidence of house sparrow breeding was recorded, they were observed entering gaps behind missing or slipped hanging clay tiles on the 2-storey terrace houses and behind gaps in the surface render panels of the terraced flat buildings. It is considered highly likely that these features provide nesting opportunities for house sparrows and other small passerines.

**Figure 4.1** House sparrow nesting beneath hanging clay tiles

**Figure 4.2** House sparrow nesting sites beneath surface cladding

4.5 No other species were confirmed as breeding.

4.6 All recordings of starling, jay, black-headed gull, swift and common gull were as individuals flying over the site only.

4.7 Starling, which are a S41 and UK BAP priority species were only recorded on one occasion on 31st July. Three individuals were recorded passing north over the open area of amenity grassland in the north of the site.

4.8 Every encounter with ring-necked parakeets, jackdaws, feral pigeons and carrion crows was not recorded as they were nearly ubiquitous across the site.

4.9 Jackdaws were recorded in large numbers and observations during bat re-entry surveys undertaken in summer 2019 indicate the likely presence of a jackdaw roost in Kingston Cemetery and Crematorium to the south of the site.

# 5.0 DISCUSSION AND RECOMMENDATIONS

5.1 To avoid potential impacts upon nesting birds (particularly house sparrows), demolition of building units with the nesting features pictured above should be undertaken outside of the nesting bird season (generally considered to be from March to August inclusive). Additionally, prior to demolition of these units, compensatory house sparrow nest boxes should be installed in the immediate vicinity of these units prior to demolition to ensure nesting opportunities are available in the spring.

**Figure 5.1** Compensatory house sparrow nest box models

5.2 Additionally, the proposed buildings should feature integrated sparrow terraces within brick courses or set into cladding to provide permanent nesting opportunities. These should be located at a minimum of 10m height and on northern and eastern aspects to prevent risk of overheating. They should also be grouped together with entrance holes within 30-50cm of each other to reflect the social nature of house sparrows.

**Figure 5.2** Sparrow terraces suitable to be integrated into built form

5.3 Site clearance will also result in the loss of foraging habitat, albeit habitat of poor quality. This will be fully mitigated for through provision of extensive landscaping associated with the proposed development. The proposed landscaping and habitat creation have been designed to increase the value of habitats across the site for nesting and foraging birds through inclusion of berry producing shrubs, scrub habitat and species-rich planting. A Biodiversity Impact Assessment (BIA) accompanying this document details the change

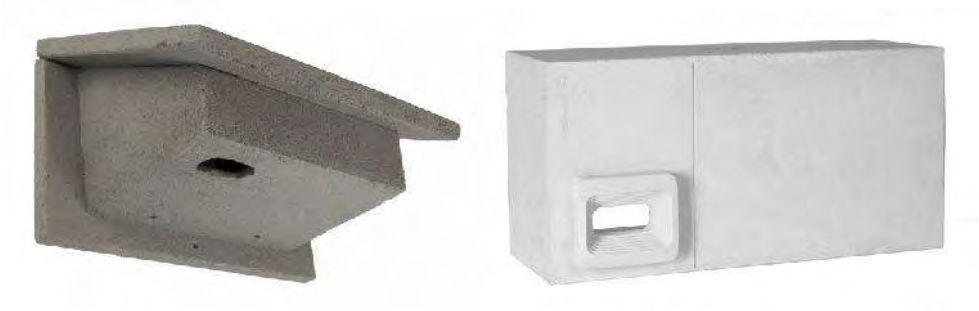
in ecological value of the site using the DEFRA Metric 2.0, in line with best practice guidance.

5.4 To further enhance the value of the site for nesting birds, additional bird nest boxes suitable for a range of species should be installed on site. Trees planted/retained of sufficient size to support hanging boxes should be fitted with the following:

**Figure 5.3** CJ Wildlife Seville 32mm Woodstone Nest Box (left), CJ Wildlife Barcelone Woodstone Open Nest Box (middle) and 3S Schwegler Starling Nest Box (right)

5.5 Additionally, on any new building units of suitable height (above 2 storeys), swift nest boxes should be installed under eaves and/or integrated into the built form to provide nesting opportunities for swifts.

**Figure 5.4** CJ Wildlife Swift box (left) and Green & Blue Swift Block (right)



5.6 Due to the phased nature of the proposed development, a comprehensive breeding bird survey should be undertaken for each specific phase prior to commencement. This should include early season visits to determine territories and nesting sites with more clarity then was achievable with this assessment.

# 6.0 SUMMARY & CONCLUSION

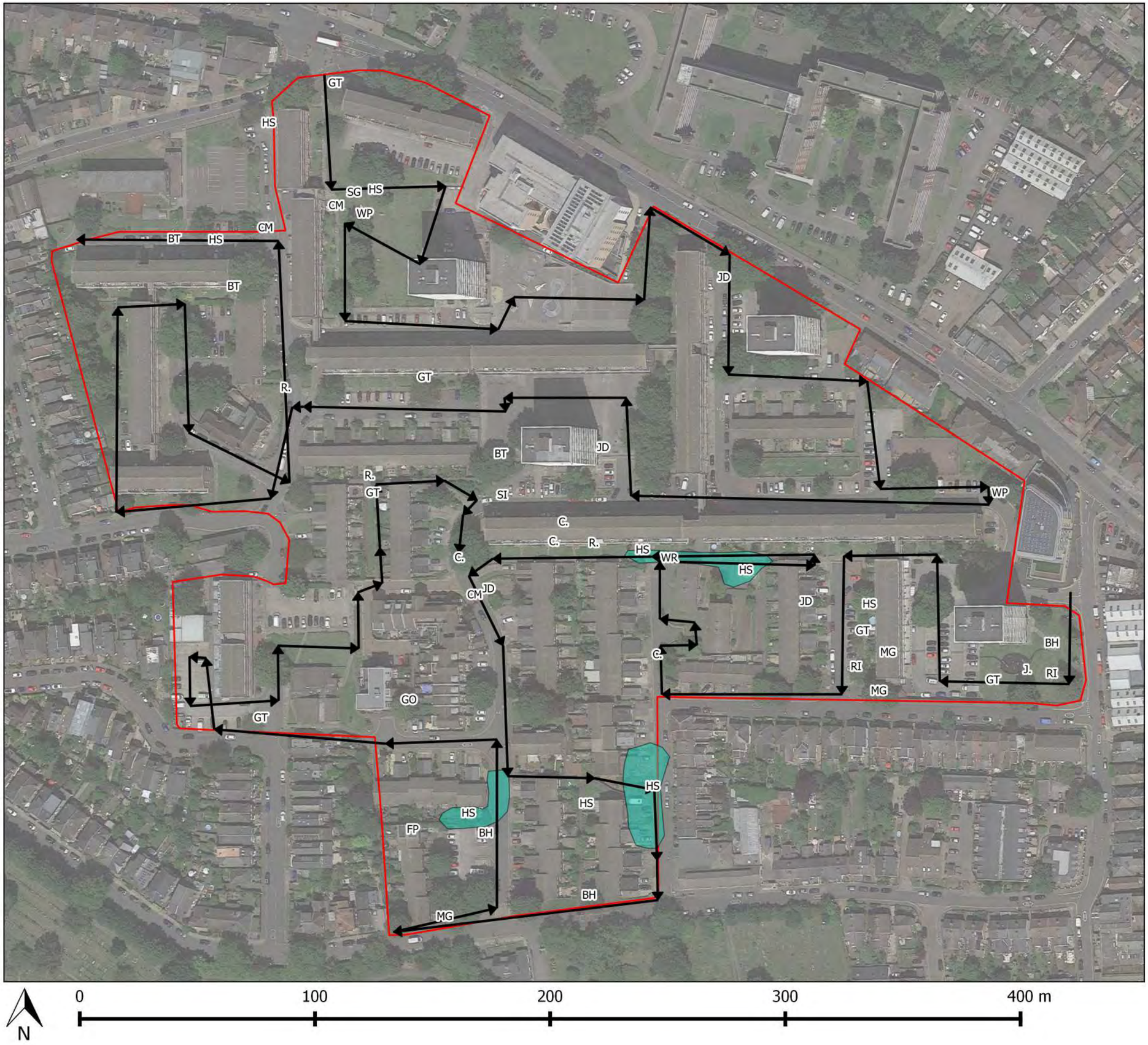
6.1 Greengage was commissioned by Cambridge Road (RBK) LLP to undertake a bird survey of the Cambridge Road Estate in Royal Borough of Kingston upon Thames in order to gather information on the species of bird that are present on or flying over the site, as well as to gather anecdotal evidence of bird behaviour on site e.g. nesting, foraging, territory building.

6.2 The survey identified a breeding population of house sparrows in addition to the presence of 16 other species. Five of these species are listed on the RSPB Birds of Conservation Concern list as declining. Four of these five species were only seen flying over the site.

6.3 Key mitigation, compensation and enhancement actions are described to ensure the proposed development results in no detrimental impacts to local bird populations.

# FIGURE 1 BIRD SURVEY PLAN

# CAMBRIDGE ROAD ESTATE




- Transect Route
- House sparrow areas of high activity
- Bird Species
- Approximate Site Boundary

| BTO Species Code | Common Name |
|---|---|
| RI | Ring-necked parakeet |
| GT | Great tit |
| JD | Jackdaw |
| HS | House sparrow |
| C. | Carrion crow |
| MG | Magpie |
| R. | Robin |
| BH | Black-headed gull |
| FP | Feral pigeon |
| GO | Goldfinch |
| WP | Wood pigeon |
| SI | Swift |
| J. | Jay |
| CM | Common gull |
| BT | Blue tit |
| SG | Starling |
| WR | Wren |


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**Fig 1.0 Bird activity plan**


Project Number 551291
August 2020
1 to 1,600 at A3
Basemap data: Google earth

# APPENDIX 2 RELEVANT LEGISLATION AND POLICY

## LEGISLATION

### 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 (the 'Bern Convention') and the Birds Directive and EU Habitats Directive are implemented in Great Britain.

#### 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.

## PLANNING POLICY

### National

#### National Planning Policy Framework

The National Planning Policy Framework (NPPF) 2019[2] 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: Spatial Development Strategy for Greater London[3]

The London Plan is comprised of separate chapters relating to a number of areas, including London's Places, People, Economy and Transport. The following policies have

been identified within the London Plan, which relate specifically to ecology and this development.

Policy 2.18 Green Infrastructure

Policy 2.18 aims to protect, promote, expand and manage the extent and quality of, and access to, London's network of open and green spaces.

Policy 5.10 Urban Greening

This policy encourages the 'greening of London's buildings and spaces and specifically those in central London by including a target for increasing the area of green space (including green roofs etc) within the Central Activities Zone'.

Policy 5.11 Green Roofs and Development Site Environs

Policy 5.11 specifically supports the inclusion of planting within developments and encourages boroughs to support the inclusion of green roofs.

Policy 5.13 Sustainable Drainage

Policy 5.13 promotes the inclusion of sustainable urban drainage systems in developments and sets out a drainage hierarchy that developers should follow when designing their schemes.

Policy 7.19 Biodiversity and Access to Nature

'The Mayor will work with all the relevant partners to ensure a proactive approach to the protection, enhancement, creation, promotion and management of biodiversity in support of the Mayors Biodiversity Strategy.'

The Draft New London Plan (emerging)

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. Where harm to a SINC (other than a European (International) designated site) is unavoidable, the following approach should be applied to minimise development impacts:

1. avoid adverse impact to the special biodiversity interest of the site
2. minimise the spatial impact and mitigate it by improving the quality or management of the rest of the site
3. seek appropriate off-site compensation only in exceptional cases where the benefits of the development proposal clearly outweigh the biodiversity impacts.

D. Biodiversity enhancement should be considered from the start of the development process.

E. Proposals which create new or improved habitats that result in positive gains for biodiversity should be considered positively, as should measures to reduce deficiencies in access to wildlife sites.

Policy G7 Trees and woodlands

C. 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[4]

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

### Kingston Core Strategy

Policy CS 3 - The Natural and Green Environment

The Council will protect and improve Kingston’s valued natural and green environment by:

a. seeking to ensure that residents have access to an interconnected network of safe, well managed and maintained areas of open space through the implementation of routes in the ’South West London Greenways Network Expansion - Feasibility Report’, Kingston’s Green Spaces Strategy, Park Management Plans and Annual Implementation Plans

b. protecting Kingston's open space network from inappropriate development through its open spaces designations; Green Belt, Metropolitan Open Land (MOL), Thames Policy Area, Sites of Importance for Nature Conservation (SINCs), Local Nature Reserves, Local Open Space, School Open Spaces, Green Corridors, Green Chains and Allotments, as shown on the Proposals Map

c. facilitating regeneration, infrastructure upgrades and environmental improvement to the Hogsmill Environs

d. incorporating appropriate elements of public open space into new developments and/or making a financial contribution to improving existing open spaces, with additional facilities and better management to Green Flag standards

e. promoting the management of biodiversity in light of the threats arising from climate change and future development growth, by working in partnership with a range of organisations on projects to protect and enhance Kingston's Open Space Network. This will not only provide increased wildlife habitats, but will also link wider parts of Kingston, allowing easier movement and reducing isolation of habitats.

Policy DM 6 - Biodiversity

The Council will:

a. ensure new developments protect and promote biodiversity as part of sustainable design, through the inclusion of sustainable drainage, tree planting, soft landscaping, habitat enhancement and/or improvement, green roofs and new or improved semi-natural habitats, where appropriate

b. require an ecological assessment on major development proposals, or where a site contains or is next to significant areas of habitat or wildlife potential. This should be completed before design work or submission of the planning application.

c. ensure that new development does not result in a net loss of biodiversity and, where appropriate, should include new or improved habitats and provision for natural and semi-natural public green space, as set out in the Planning Obligations SPD or Community Infrastructure Levy charge.

# REFERENCES

[1] Gilbert, G., Gibbons, D. W. and Evans, J. (1998); Bird Monitoring Methods.

[2] GOV.UK. (2019). National Planning Policy Framework. [online] Available at: https://www.gov.uk/government/publications/national-planning-policy-framework--2 [Accessed 13 June 2019].

[3] Greater London Authority (2016). The London Plan: The Spatial Development Strategy for London Consolidated with Alterations Since 2011. London: Greater London Authority.

[4] Greater London Authority (2018). London Environment Strategy 2018. London: Greater London Authority.

Greengage

Cambridge Road Estate, Cambridge Road (RBK) LLP
Bat Survey Method Statement, August 2019

# QA

# Cambridge Road Estate, Kingston, Bat Survey Method Statement

| | | |
|---|---|---|
| Issue/Revision: | Draft | Final |
| Date: | July 2019 | October 2020 |
| Comments: | | |
| Prepared by: | Mike Harris | Mike Harris |
| Signature: |  |  |
| Authorised by: | Morgan Taylor | Morgan Taylor |
| Signature: |  |  |
| File Reference: | 551291mjhJuly19DV01_Bats_Methods | 551291mjhJuly19FV02_Bats_Methods |

# CONTENTS

# 1.0 INTRODUCTION AND BACKGROUND

## THE REGENERATION PROPOSALS

1.1 Cambridge Road Estate is the Royal Borough of Kingston's (hereafter 'the council') largest regeneration programme. The programme aims to deliver approximately 2000 new homes over the next 10-12 years, including more social housing, better community facilities and outdoor spaces and a lasting social and economic legacy for residents in Kingston.

1.2 The council is determined to deliver new social rented homes, some shared ownership and some homes for sale. The regeneration will also ensure that all of those who wish to stay on the estate are able to do so.

1.3 Cambridge Road (RBK) LLP has been selected by the council as the preferred development partner to work with the council and local residents on the regeneration of Cambridge Road Estate.

1.4 The masterplanning process will include the overall design of the development including properties, landscaping, public transport and open spaces. These proposals will be subject to a positive resident ballot, planned for autumn 2019.

## ECOLOGICAL BACKGROUND

1.5 Cambridge Road (RBK) LLP commissioned Greengage on the 4th June to undertake a Preliminary Ecological Appraisal (PEA) and ground level, daytime bat scoping survey of structures on site.

1.6 The PEA and bat scoping survey were completed by a suitably qualified ecologist between the 17th and 19th of June 2019. The results of these surveys will be provided in a standalone report which will be prepared in due course.

1.7 The key findings of the surveys are provided below.

### Preliminary Ecological Appraisal

1.8 The site was found to be dominated by buildings, and hardstanding in the form of car parks and access routes. Interspersed within the buildings and hardstanding were areas of amenity grassland, introduced shrub (primarily within garden areas) and scattered trees.

1.9 The potential for the site to support protected species was assessed with value for nesting birds and bats identified (see Bat Scoping summary below).

## Bat Scoping Survey

1.10 The whole site was walked and structures and trees were assessed for their potential to support roosting, foraging and commuting bats.

1.11 The external bat survey was undertaken to inform whether further surveys are required and if so the extent and survey effort. The external survey, which was carried out in conjunction with the PEA, recorded the presence of potential bat roosting features such as slipped or missing tiles, loose lead flashing and holes in soffit boards etc in buildings and woodpecker holes, missing branches and lifted bark etc in trees.

### Buildings/Structures

1.12 The scoping survey identified potential access/egress points on multiple buildings/structures across the site. Access / egress points recorded on buildings during the survey included:

- Hanging clay tiles
- Hole in soffit box
- Lifted roof tiles
- Missing/broken brick
- Gap in boarded up window
- Gap into underground storage/parking
- Holes in wall under stairwell
- Lifted ridge tile
- Lifted wooden cladding

1.13 The indicative location of key access / egress points along are shown on Figure 1.

### Trees

1.14 The scoping survey also identified a single tree in the south east of the site that has low potential to support roosting bats. The location of this tree is shown on Figure 1.

# 2.0 RECOMMENDATIONS AND PROPOSED SURVEYS

2.1 The majority of the individual buildings/structures were considered to have negligible or low potential to support bats. This was due to there being only a small number, one in many cases, of potential access / egress point(s) on individual buildings/structures (see Figure 1). However, given the size of the site and the close proximity of all of the buildings/structures, the overall potential for the site to support roosting bats was raised to moderate.

2.2 The site is dominated by buildings and hardstanding, although interspersed between these habitats are areas of amenity grassland, scattered trees and private gardens. This network of 'green' spaces provides, albeit relatively limited, both foraging and potential commuting habitat for the local bat population. The overall value of the site for foraging and commuting bats is considered to be low. This is due to the large proportion of building and hardstanding on site. There are significantly better habitats for foraging and commuting in the wider area in the form of Kingston Cemetery and Crematorium to the south of the site and Hogsmill River and Hogsmill Sewage Treatment works further south, amongst others. Furthermore, The River Thames and Hampton Court park are approximately 1.5km to the west and Richmond Park is approximately 1.6km to the north.

2.3 Based on the above recommendations a suite of bat emergence and return surveys coupled with walked and static activity surveys have been proposed.

## DUSK EMERGENCE AND DAWN RETURN TO ROOST SURVEYS ON BUILDINGS

2.4 The aim of the dusk / dawn surveys on buildings was to ascertain the presence / likely absence of roosting bats.

2.5 It is important to note that the surveys being undertaken in July and August 2019 (these surveys) are to inform the masterplan design and the planning process. These will not be the last bat surveys conducted on site before regeneration works commence. The proposed regeneration will be delivered in phases over a 10 – 12 year period. As individual phases come forward over this period, update bat surveys on specific phases will need to be carried out.

2.6 The 2019 surveys have been designed using the Bat Conservation Trust (BCT) Good Survey Guidelines (2016) and the methodology for undertaking the surveys in terms of timing, length of survey and time between surveys is in line with the BCT guidelines.

2.7 Given that the regeneration will take place in phases, over 10 – 12 years and that each of these phases will be subject to update bat surveys, the requirement to survey every individual potential access/egress point has been adapted to ensure the survey is extensive

enough to provide detailed input to the masterplan design and planning process, but also proportionate given extensive future surveys will be undertaken.

2.8 The approach being taken is as follows:

- Up to 29no. individual surveyor locations were identified which would allow all previously identified access and egress points to be covered (see Figure 1 for indicative surveyor locations). Some locations require the surveyor to observe more than one access/egress point, however, where this occurred these points were close enough that the surveyor could view them from one position.
- Each of the up to 29no. surveyor location will be subject to a dusk emergence survey and a separate dawn return survey. These surveys will be at least two weeks apart during July and August 2019.
- Dusk surveys will commence 15 minutes prior to sunset and conclude 90 minutes after sunset.
- Dawn surveys will commence 90 minutes before sunrise and conclude at sunrise.
- Surveyors will use echometer bat detectors, or similar, and all calls will be recorded for further analysis, where required.
- The surveys will take place on days of fairly calm weather (no heavy wind or rain).

## WALKED DUSK ACTIVITY TRANSECT SURVEYS

2.9 The aim of the walked activity surveys will be to ascertain an understanding of the importance of the site for foraging and commuting bats (anecdotal information on foraging and commuting bats will also be recorded by the surveyors undertaking the dusk emergence and dawn return surveys).

2.10 As with the dusk/dawn surveys of the buildings, there is likely to be a requirement to update these activity surveys as individual phases of the regeneration come forward over the next 10 – 12 years.

2.11 The walked dusk activity transect surveys have been designed in line with the BCT Good practice Guidelines (2016).

2.12 As the site has low value for foraging and commuting bats, the proposed surveys comprise:

- A walked activity survey in Summer (August 2019), Autumn (September/October 2019) and Spring (April/May 2020).
- On each occasion, due to the size of the site, the site will be split in two and a single transect survey will be undertaken in each area. Each individual transect will be

approximately 1.5km in length. Indicative transects to be walked are shown on Figure 2.

- The dusk survey will commence at sunset and continue for 120 minutes after sunset.
- Surveyors will use echometer bat detectors, or similar, and all calls will be recorded for further analysis, where required.
- The surveys will take place on days of fairly calm weather (no heavy wind or rain).

## STATIC ACTIVITY SURVEYS

2.13 To supplement the walked activity transect surveys, two static bat detectors will placed on each of the two transect routes to collect data over five consecutive nights, in Summer (August 2019), Autumn (September/October 2019) and Spring (April/May 2020). The static surveys will be undertaken under suitable weather conditions.

2.14 Following the completion of five days on site the static detectors will be collected, and the data downloaded and analysed using Analook.

2.15 The methodology for the static activity surveys exceeds the recommendations within the BCT Good Practice Guidelines (2016) as it uses 2no. statics per transect as opposed to 1no. static per transect. The increase of statics per transect has been implemented to ensure a better coverage of the site, given the site's size.

## REPORTING

2.16 On completion of the 2019 surveys an interim Bat Survey Report will be produced and included with the overall planning submission. Planning is scheduled to be submitted in early 2020. This interim report will be supplemented with an addendum report covering the proposed 2020 activity surveys.

2.17 The report will include:

- An introduction to the development and detailed ecological background;
- Survey and analysis methodology;
- Results including any identified roost, list of species recorded across all surveys, analysis of activity including total passes and behaviour recorded;
- A discussion of potential ecological constraints identified;
- Recommendations for:

- How any ecological constraint with regards to bats can be overcome e.g. roost loss etc through the implementation of standard, good practice mitigation measures e.g. timing of works, lighting design, landscaping proposals;
- Whether a Natural England European Protected Species Mitigation (EPSM) licence will be required and if so when and where;
- Future site enhancements that can be designed into the masterplan to increase the overall value of the site for bats (these would be in addition to any mitigation measures required) and could include the provision of a variety of bat boxes and the potential for living/biodiverse roofs on a selection of flat roofs;
- Future survey requirements and scheduling as phases come forward, where information on development phasing is available.

2.18 The report would be supported by appropriate mapping.

– END –

## FIGURE 1: ACCESS AND EGRESS POINTS AND PROPOSED SURVEYOR LOCATIONS

# CAMBRIDGE ROAD ESTATE

- Approx Red Line Boundary
- Surveyor locations

**Potential Bat Roost Feature**

- Hole in soffit box
- Missing/broken brick
- Lifted roof tiles
- Gap into underground storage/parking
- Gap in boarded up window
- Holes in wall under stairwell
- Slipped/missing clay tiles
- Lifted ridge tile
- Lifted wooden cladding
- Tree with low roost potential

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**Fig 1.0 Access and Egress Points and Proposed Surveyor Locations**

0 100 200 300 400 500 m

# FIGURE 2: PROPOSED BAT ACTIVITY SURVEY PLAN

# CAMBRIDGE ROAD ESTATE

Approx Red Line Boundary

**Transect Route**

1

2

Indicative Static Detector Locations

0 100 200 300 400 500 m

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**Fig 2.0 Proposed Bat Activity Survey Plan**

Greengage

Cambridge Road Estate, Cambridge Road (RBK) LLP
Bat Survey Report, November 2020

# QA

## Cambridge Road Estate – Bat Survey Report

| | | |
|---|---|---|
| Issue/Revision: | Draft | Final |
| Date: | June 2020 | November 2020 |
| Comments: | | |
| Prepared by: | Daniel Perlaki | Daniel Perlaki |
| Signature: |  |  |
| Authorised by: | Mike Harris | Mike Harris |
| Signature: |  |  |
| File Reference: | 551291dpDec19DV04_Bats | 551291dpMay20FV02_Bats |

# CONTENTS

# 1.0 EXECUTIVE SUMMARY

1.1 Greengage Environmental Ltd was commissioned to undertake a suite of bat surveys of the Cambridge Road Estate in the Royal Borough of Kingston by Cambridge Road (RBK) LLP.

1.2 This document is a report of this survey and has been produced to support a hybrid Outline Planning Application for a mixed use development, including demolition of existing buildings and erection of up to 2,170 residential units (Use Class C3), 290sqm of flexible office floorspace (Use Class E), 1,395sqm of flexible retail/commercial floorspace (Use Class E/Sui Generis), 1,250sqm community floorspace (Use Class F2), new publicly accessible open space and associated access, servicing, landscaping and works.

1.3 Detailed permission is sought for access, layout, scale, appearance and landscaping of Phase 1 for erection of 452 residential units (Use Class C3), 1,250sqm community floorspace (Use Class F2), 290sqm of flexible office floorspace (Use Class E), 395sqm of flexible retail/commercial floorspace (Use Class E/Sui Generis), new publicly accessible open space and associated access, servicing, parking, landscaping works including tree removal, refuse/recycling and bicycle storage, energy centre and works ("the Proposed Development").

1.4 This survey aimed to establish the presence/likely absence of roosting bats in order to inform appropriate mitigation, compensation and enhancement actions in light of proposed development works. The survey also sought to identify the relative importance of the site for foraging and commuting bats, in addition to identifying spatial and temporal trends in the ways in which the site and/or features of the site are used.

1.5 Roosting bats were confirmed as being likely absent from the site, therefore formal mitigation for roosting bats is not required. Activity surveys identified use of specific areas of the site as a foraging and commuting resource by a small number of common (Pipistrellus pipistrellus) and soprano pipistrelles (P. pygmaeus). Limited commuting activity of common noctules (Nyctalus noctula) and Nathusius' pipistrelles (P. nathusii) was also recorded.

1.6 Without any mitigation, the proposed development may stand to permanently destroy bat foraging and commuting habitat and potential roosting features. As such, compensation and enhancement recommendations are outlined in this report. These include:

- Ensuring creation/retention of linear habitat features across the site to maintain/enhance its value as a commuting corridor, where possible. Where this is not possible, foraging and commuting features should be replaced on at least a like for like basis in terms of area;

- Provision of extensive, substrate-based biodiverse roofs on all suitable flat roof areas, with vertical greening using climbing plants and trellises on all suitable surfaces;
- Implementation of a bat-sensitive lighting strategy during construction and operation in line with best practice guidance; and
- Landscaping design to include night-scented species likely to attract invertebrate prey.

1.7 It is recommended that measures to mitigate, compensate and enhance the site for roosting, foraging and commuting bats is detailed within a high-level, overarching site wide Ecological Management Plan (EMP). Individual Plot/Phase EMPs could then be produced with specific detail for that plot/phase using the high-level information from the site wide EMP. This approach would allow for a consistent approach to ecological mitigation and enhancement across the site, ensuring the measures implemented work both at the individual plot/phase level and at the wider site level. Both the overarching site wide and the individual plot/phase EMPs could be secured through planning condition.

1.8 As the development is to be brought forward over five phases, should bat survey data be >18 months old at commencement of a phase, updated surveys may be required. The requirement for further surveys would be identified by an updated, phase-specific Preliminary Ecological Appraisal.

1.9 Should recommendations outlined in this report be adhered to, the proposed development is considered to have a negligible impact on roosting, foraging and commuting bats and potentially have a minor beneficial impact at the local scale.

# 2.0 INTRODUCTION

2.1 Greengage was commissioned by Cambridge Road (RBK) LLP to undertake a suite of Bat Surveys of the Cambridge Road Estate in the Royal Borough of Kingston upon Thames.

2.2 This document is a report of this survey and has been produced to support a hybrid Outline Planning Application for a mixed use development, including demolition of existing buildings and erection of up to 2,170 residential units (Use Class C3), 290sqm of flexible office floorspace (Use Class E), 1,395sqm of flexible retail/commercial floorspace (Use Class E/Sui Generis), 1,250sqm community floorspace (Use Class F2), new publicly accessible open space and associated access, servicing, landscaping and works.

2.3 Detailed permission is sought for access, layout, scale, appearance and landscaping of Phase 1 for erection of 452 residential units (Use Class C3), 1,250sqm community floorspace (Use Class F2), 290sqm of flexible office floorspace (Use Class E), 395sqm of flexible retail/commercial floorspace (Use Class E/Sui Generis), new publicly accessible open space and associated access, servicing, parking, landscaping works including tree removal, refuse/recycling and bicycle storage, energy centre and works ("the Proposed Development").

2.4 This survey aimed to establish the ecological value of this site and the presence/likely absence of roosting bats and identify the relative importance of the site for bats. The survey sought to determine patterns of use, both temporarily and spatially and identify bat behaviours in order to inform appropriate mitigation, compensation and enhancement actions in light of proposed development works.

## SITE DESCRIPTION

2.5 The survey area extends to approximately 9 hectares and is centred on National Grid Reference TQ190690, OS Co-ordinates 519074, 169085.

2.6 The estate is located within the Norbiton Ward in the Royal Borough of Kingston upon Thames, approximately 850m east of Kingston town centre. The site is bound to the north by A2043 – Kingston Road and to the south by Kingston Cemetery and Crematorium. The estate currently contains 832 residential homes distributed across:

- Four 15-storey residential tower blocks;
- Sixteen 5/4-storey terraced flats; and
- Numerous areas of 2-storey terraced housing.

2.7 The estate and assessment boundary also includes the Bull and Bush Hotel and Pub, Piper Community Hall and a convenience shop.

2.8 The site is situated in a residential area, sub-urban in character. Residential development dominates land use to the north, east and west of the site, including a newly constructed

student accommodation adjacent the site to the north. South of the site is the cemetery, beyond which lies the Hogsmill River (300m south). Southeast of the site features outdoor recreation areas. Green infrastructure provision in the area is formed by street trees, the cemetery, Hogsmill River, recreation grounds and residential gardens.

## ECOLOGICAL CONTEXT

### Preliminary Ecological Appraisal

2.9 Greengage undertook a Preliminary Ecological Appraisal (PEA) of the estate on 17th and 19th June 2019 to appraise its ecological value, identify and map any habitats on the site and identify it's potential to support notable and/or protected species (document reference: 551291dpOct19FV02_PEA). An update walkover survey of the site was completed on the 12th October 2020 to assess any change in habitats and overall ecological value on site since the June 2019 survey. The update walkover survey (document reference: 551291dpOct20FV01_PEA_Update) concluded that there had been no significant change on site and that the recommendations and conclusions made within the PEA report (document reference: 551291dpOct19FV02_PEA) were still correct and valid.

2.10 The site walkover surveys, both the June 2019 and October 2020 surveys, included an assessment of the value of the site for foraging and commuting bats. 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.

2.11 Habitats across the site were noted to be common and widespread, being composed of almost exclusively buildings, hardstanding, introduced shrub and amenity grassland. There is extensive security and streetlighting across the site. As such, the site was considered to have low potential to support foraging and commuting bats.

### Preliminary Roost Appraisal

2.12 A Preliminary Roost Appraisal (PRA) was also undertaken on 17th and 19th June 2019 to assess the potential for the site to support roosting bats.

2.13 The site visit was undertaken in daylight and the evaluation of bat potential comprised an assessment of natural and built features on site that aimed to identify characteristics suitable for bat roosts. In accordance with Bat Conservation Trust's Good Practice Guidelines[1] and methods given in English Nature's (now Natural England) Bat Mitigation Guidelines[2] 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.

2.14 Numerous features associated with the built form across the site were identified as having potential to support roosting bats. The majority of the individual buildings/structures were considered to have negligible or low potential to support bats. This was due to there being only a small number, one in many cases, of potential access / egress point(s) on individual buildings/structures. However, given the size of the site and the close proximity of all of the buildings / structures, the overall potential for the site to support roosting bats was raised to moderate.

2.15 Potential roosting features recorded include:

- Missing, broken or slipped hanging tiles on the facias of two-storey terrace units;
- A hole in a soffit box of a two-storey building off Cambridge Grove Road;
- Missing/broken bricks on the four-storey blocks off Burritt Road;
- Lifted pitched roof/ridge tiles on three-storey units of Cambridge Grove Road;
- Gaps leading into an underground storage/parking area;
- Lifted ridge tile on the more recently constructed units on Willingham Way; and
- Lifted wooden cladding on Piper Hall.

2.16 The underground parking/storage areas were not inspected internally, therefore the presence of potential roosting features within these areas could not be assessed. Because potential roosting features within these areas could not be confirmed as absent, these areas and ingress points into them were considered potential roosting features.

2.17 Additionally, a single tree in the south of the site was identified as having low potential to support roosting bats.

2.18 Locations of all potential roosting features are shown on Figure 1.

# 3.0 METHODOLOGY

3.1 The following bats surveys were recommended to be undertaken on site as a result of the findings of the PEA:

- Dusk emergence and dawn re-entry surveys on buildings with potential to support roosting bats;
- Walked dusked activity transect surveys; and
- Static activity surveys.

3.2 The methodology followed during the aforementioned surveys was detailed within a Bat Survey Method Statement (Report ref: 551291mjhJuly19FV02_Bats_Methods) produced by Greengage in August 2019. A copy of the final Method Statement is provided in Appendix 1 of this report.

## SURVEYORS

3.3 A summary of the credentials of the lead surveyors is provided below. In addition to the lead surveyors below, the team was supported by multiple experienced bat surveyors provided by the Surrey Wildlife Trust Ecology Services.

3.4 Mike Harris, who lead the surveys and reviewed this report, has a Bachelor's degree in Environmental Biology (BSc Hons), a Natural England Great Crested Newt Licence (2015-17819-CLS-CLS) and Dormouse Licence (2016-21291-CLS-CLS), is a Chartered Environmentalist (CEnv) and is a Full member of CIEEM. Mike has over 17 years' experience in ecological surveying and has undertaken and managed numerous ecological surveys and assessments.

3.5 Daniel Perlaki, who undertook the surveys at site and prepared this report, has an undergraduate degree in Ecology (BSc Hons), a Master's degree in Conservation Science and Policy and is a Graduate member of CIEEM. Dan has over 3 years' worth of experience leading on bat surveys across the country.

3.6 Morgan Taylor, who assisted the surveys, 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 8 years' experience in ecological surveying having undertaken assessments of numerous development sites of this type. He leads the Ecology team at Greengage.

3.7 Vincenzo De Iacovo BSc (Hons) has over 9 years' experience as a practising ecologist and has been involved in a wide range of protected species survey, mitigation and monitoring project work all over the UK and Ireland. Vincenzo is an active member of the Surrey Bat Group and has experience undertaking various conservation work and surveys including harp trapping, roost visits, hibernation and bat box checks. Vincenzo is a Natural England Volunteer Roost Visitor and also a bat cared for ground bats.

Vincenzo holds tree climbing certificates and has undertaken tree climbed assessments of bat features in trees for various ecological consultancies. In addition to his extensive experience of working with widespread UK bats Vincenzo also holds a European Protected Species survey (Level 2) licence for bats.

3.8 James Bumphrey, who assisted the surveys, has an undergraduate degree in Environmental Sciences (BSc Hons), a Master's degree in Environmental Consultancy, a Natural England Great Crested Newt Licence (2018-35160-CLS-CLS) and is a Graduate member of CIEEM. James has 6 years' experience surveying bats on sites like this.

3.9 Olivia Guindon, who assisted the surveys, has a Bachelor's degree in Ecology and Wildlife Conservation (BSc Hons), a Master's degree in Species Identification and Survey Skills and is a Graduate member of CIEEM. Olivia has been a bat surveyor for three years.

3.10 Laura Thomas, who assisted the surveys, has an undergraduate degree in Biology (BSc Hons) and a Master's degree in Evolutionary and Behavioural Ecology and is a Graduate member of CIEEM. Laura has over 3 years' experience in the commercial sector.

3.11 This report was written by Daniel Perlaki and reviewed and verified by Mike Harris 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

### Emergence/Re-entry Surveys

3.12 The surveys were 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 required.

3.13 On two surveys, brief periods of light rain were recorded. As these did not last longer than 15 minutes, this is not considered a significant constraint.

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

### Activity Surveys

3.15 There are inherent constraints associated with the use of static bat detectors. Range and direction of bats from microphones can result in recording failures. The microphones used are omni-directional, with a wide beam pattern and were set to a high sensitivity. However, obstacles in cluttered environments can block microphones from recording.

3.16 The measure used to compare relative importance of location for bats is bat passes per night. It is important to consider that bat passes may naturally vary night on night, season on season, relative to weather conditions and conditions such as moon irradiance levels etc. To mitigate for this, detectors were installed for a minimum of six nights.

3.17 'Bat passes' were defined as any call or series of calls separated by more than one second from another call or series of calls. The number of bat calls or bat passes does not directly relate to the number of bats in a location as individual bats cannot be differentiated.

3.18 The detector named 'CRE4', located in the park to the north of the site failed to record during the first monitoring period, therefore it was installed between 12th and 22nd September. This data is not concurrent with other data collected by other detectors, therefore is not directly comparable. However, as data was collected over 10 nights with a variety of weather conditions, comparison of mean passes per night is still considered valid.

3.19 CRE4 failed to record again during the second monitoring period. However, due to the high level of information gathered across the whole site during all the surveys (static, walked transect and dusk emergence and dawn return to roost surveys, the overall data gathered across the site is considered to be robust and sufficient.

# 4.0 RESULTS

## EMERGENCE / RE-ENTRY SURVEYS

4.1 Survey dates and conditions are provided in table 4.1.

4.2 No emergences or re-entries were recorded on any of the survey visits. As such, roosting bats can be considered likely absent from the site. Very low/low levels of bat activity were recorded during each emergence/re-entry survey visit, with common and soprano pipistrelles accounting for all recordings.

4.3 Weather conditions during each survey visit were suitable, however ambient street lighting levels across the site were noted as being very high, particularly in the north of the site (see Figure 5.1 below).

4.4 An average of 2.72 passes per survey visit were recorded across all survey visits.

Table 4.1 Auxiliary Emergence/Re-Entry Survey Data

| Date | Sunset/ Sunrise Time | Survey Start | Survey Finish | Weather Conditions | Surveyors |
|---|---|---|---|---|---|
| 22/07/2019 | 21:04 | 20:49 | 22:34 | 21ºC, 0/8 cloud | Morgan Taylor, SWTESx10, Olivia Guindon, Mike Harris, Emma Griffiths, Daniel Perlaki |
| 29/07/2019 | 20:54 | 20:39 | 22:24 | 21ºC, 3-5/8 cloud, light breeze | Mike Harris, Emma Griffiths, Alice Petherick |
| 31/07/2019 | 20:51 | 20:36 | 22:21 | 21ºC, 3/8 cloud 7kmph wind | Vincenzo De Iacovo, Alice Petherick, Daniel Perlaki, James Bumphrey, Emma Griffiths |
| 01/08/2019 | 20:49 | 20:34 | 22:19 | 23ºC, 8/8 cloud, 1kmph wind, light drizzle 21:38-21:48 | Vincenzo De Iacovo, SWTES x4, Mike Harris |
| 20/08/2019 | 05:54 | 04:24 | 05:54 | 13ºC, 0/8 cloud, 5kmph wind | Daniel Perlaki, Laura Thomas |
| 22/08/2019 | 05:57 | 04:27 | 05:57 | 13ºC, 0/8 cloud, 5kmph wind | Daniel Perlaki, Olivia Guindon, Matthew Dale |
| 23/08/2019 | 05:59 | 04:29 | 05:59 | 15ºC, 0/8 cloud, 7kmph wind, humid | Olivia Guindon, Jess Cole, Daniel Perlaki |
| 28/08/2019 | 06:07 | 04:37 | 06:07 | 18-19ºC 0-2/8 cloud, no wind. Light drizzle from 05:10 to 05:25 and 05:30-05:35 | Mike Harris, SWTESx2, Vincenzo De Iacovo |
| 29/08/2019 | 06:08 | 04:38 | 06:08 | 14ºc, 7/8 CLOUD, 6KMPH WIND | Daniel Perlaki, Vincenzo De Iacovo, SWTES X1 |
| 30/08/2019 | 06:10 | 04:40 | 06:10 | 18ºC, 2/8 cloud, 1kmph wind | Alice Petherick, SWTES X1, Mike Harris |
| 02/09/2019 | 06:15 | 04:45 | 06:15 | 10-11ºC, 0/8 cloud, no wind | Mike Harris, Vincenzo De Iacovo |
| 03/09/2019 | 06:16 | 04:46 | 06:16 | 15ºC, 8/8 cloud, 6kmph wind | Daniel Perlaki, Vincenzo De Iacovo |
| 05/09/2019 | 06:19 | 04:49 | 06:19 | 12ºC, 7/8 cloud, 8kmph wind, chill wind | Daniel Perlaki, Vincenzo De Iacovo, SWTES X1, Laura Thomas |
| 06/09/2019 | 06:21 | 04:51 | 06:21 | 11ºC, 8/8 cloud, 6 kmph wind | Daniel Perlaki, Laura Thomas |

## ACTIVITY SURVEY

4.5 Walked transect surveys were undertaken on the following dates:

Table 4.2 Auxiliary Activity Survey Data

| Date | Sunset Time | Survey Finish | Weather Conditions | Surveyors |
|---|---|---|---|---|
| 19/09/2019 | 20:16 | 22:16 | 0/8 cloud, 9kmph wind, 16-14ºC | James Bumphrey, Emma Griffiths, Mike Harris, Laura Thomas |
| 10/10/2019 | 20:20 | 22:20 | 8/8 cloud, 9kmph wind, 16ºC | Daniel Perlaki, Laura Thomas, Olivia Guindon, Jess Cole |
| 06/04/2020 | 19:44 | 21:44 | 1/8 cloud, very light wind. Optimal conditions, 14-11ºC | Mike Harris, Daniel Perlaki |
| 16/04/2020 | 20:00 | 22:00 | 4/8 cloud cover, very light wind, 15-13ºC | Mike Harris, Daniel Perlaki |

4.6 To supplement data obtained through the walked transects, two static bat detectors were set up along each of the transect sections, with a total of four installed per monitoring period. The location of the static detectors is shown on Figure 2.

4.7 Each detector was installed for a minimum period of five consecutive nights and was programmed to record from sunset to sunrise. They were installed for two monitoring periods in 2019 and one monitoring period in 2020 over the following dates:

- 27th August – 5th September 2019 (CRE4 placed out again from 12th to 22nd September due to it failing to record between 27th August and 5th September);
- 10th – 16th October 2019; and
- 6th – 16th April 2020.

4.8 Following completion of each monitoring period, the static detectors were collected, and data analysed using Analook software. Bat calls were identified to species level. Additionally, any social calls were distinguished from echolocation.

### Walked Transects

4.9 Areas of bat activity observed during the walked transects is shown on Figure 3.

4.10 Bat activity recorded during the walked transect surveys was limited to specific areas of the site (see Figure 3), with large areas recording no activity. The main areas in frequent use by foraging and commuting pipistrelles were along the Bonner Hill Road adjacent to Kingston Cemetery and Crematorium and in a play area at the western point of the site.

## Static Monitoring

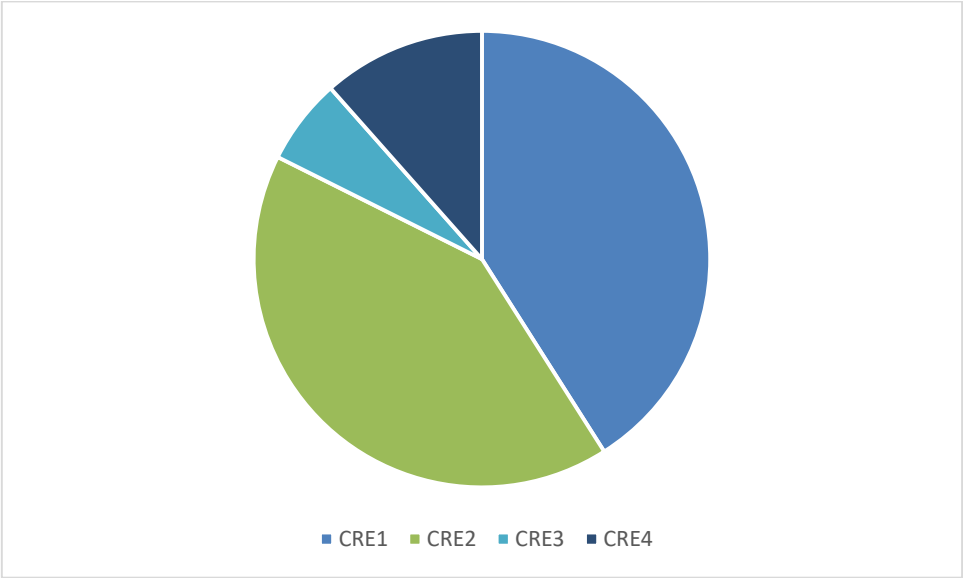
4.11 For the following graphs, species codes have been used. They are as follows:

Table 4.3 Species codes

| Code | Common name | Latin name |
|---|---|---|
| PIPI | Common pipistrelle | Pipistrellus pipistrellus |
| PIPY | Soprano pipistrelle | Pipistrellus pygmaeus |
| PINA | Nathusius' pipistrelle | Pipistrellus nathusii |
| NYNO | Noctule | Nyctalus noctula |
| PipSoc | Pipistrelle social call (identified to genus level) | N/A |

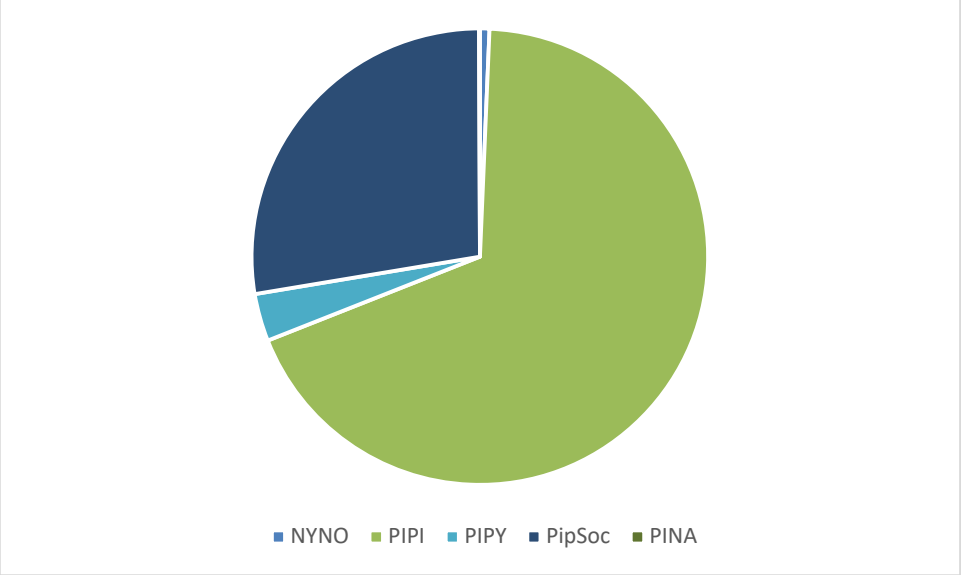
4.12 Of the static bat detector locations, CRE1 and CRE2 recorded the highest levels of bat activity, recording 40.9% and 41.4% respectively of all bat calls during all monitoring periods. CRE3 and CRE4 recorded the remaining 6.1% and 11.5% respectively.

**Figure 4.1** Bat Activity Distribution



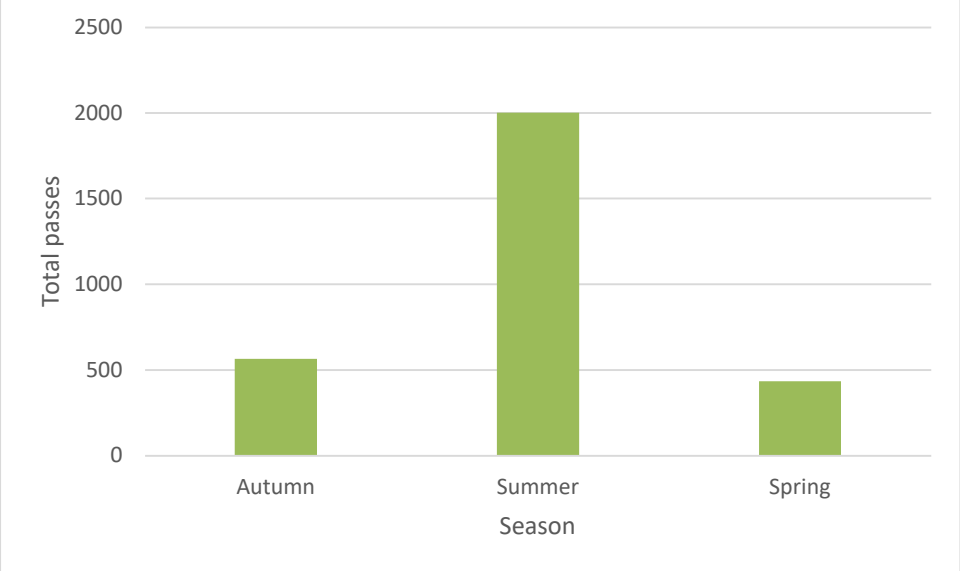
4.13 Of all species recorded, common pipistrelle was the most represented, with echolocation calls accounting for 68.4% of all recordings. Social calls could not be identified beyond genus level, however pipistrelle social calls accounted for 27.5% of all recordings. Noctules, soprano pipistrelles and Nathusius' pipistrelles accounted for 0.7%, 3.4% and 0.1% of recordings, respectively.

**Figure 4.2** Species Composition




4.14 Temporally, the majority of activity recorded (66.7%) was recorded in the Summer monitoring period, with 18.8% and 14.5% being recorded in the Autumn and Spring monitoring periods respectively.

**Figure 4.3** Temporal Trends



4.15 Of all the locations monitored, CRE2 has the highest 'mean passes per night', indicating the highest level of activity, with CRE1 being the second highest. They registered an average of 34.5 and 34.2 passes per night respectively. CRE3 and CRE4 registered a greatly reduced average of 5.1 and 9.6 passes per night respectively.

**Figure 4.4** Mean passes per night per location (error bars show standard deviation)

# 5.0 EVALUATION AND DISCUSSION

## EMERGENCE/RE-ENTRY SURVEYS

5.1 Roosting bats were confirmed as being likely absent from the buildings surveyed. It is considered likely that the high levels of street- and security-lighting across much of the site is the primary deterrent to roosting bats.

5.2 The vast majority survey visit was undertaken during optimal survey conditions. Only two survey visits featured brief spells of light rain for no longer than 15 minutes and on these surveys, bat activity was still recorded, indicating bats were still active and roosts could have been detected.

## ACTIVITY SURVEY

5.3 The bat species recorded are expected, given the location of the site. Pipistrelles and noctules are relatively light-tolerant compared with most bat species, and they are relatively common in Greater London.

5.4 The average number of passes recorded per night at all locations is 20.84. Supplementary data from the walked transects suggest that low numbers of bats are responsible for much of this activity. Activity is largely confined to commuting across the site with very little sustained foraging recorded.

5.5 Bat activity is spatially uneven across the site, largely confined to specific areas. These share certain characteristics, such as being well vegetated, having good tree canopy cover and being linear landscape features. Notably, the highest levels of activity and the only sustained foraging recorded during the walked transect surveys was in a playground western point, which is also subject to significantly lower levels of external street lighting.

5.6 Much of the activity recorded on Bonner Hill Road was determined to be bats heard foraging over Kingston Cemetery rather than over the site itself. However, it seems bats entering the site from the cemetery do so by commuting up Willingham Way.

5.7 Much of the site, particularly around the tower blocks to the north, is subject to very high levels of external lighting. This is considered highly likely to act as a deterrent to bats in the area. Figure 5.1 shows external lighting at 22:13 on 1st August, approximately 90 minutes after sunset.

**Figure 5.1** High levels of external lighting

5.8 Additionally, large areas of the site are completely unvegetated, offering no foraging opportunities.

**Figure 5.2** Unvegetated areas of hardstanding

## FURTHER SURVEY RECOMMENDATIONS

### Emergence/Re-entry Surveys

5.9 The requirement for further activity and emergence/re-entry surveys will be identified by an updated, phase specific PEA at the commencement of each subsequent

development phase. Where survey data for a phase is older than 18 months at the time the commencement of a phase, it is considered likely that updated surveys will be required.

## RECOMMENDATIONS

### Mitigation

#### Foraging and Commuting Bats

5.10 As bat activity is inconsistent across the site, it is recommended that the character of specific areas where bat activity is higher is retained and/or restored and enhanced through the proposed development.

5.11 Lighting strategies throughout demolition, construction and occupation should be designed with bats in mind, following best practice guidance from the Bat Conservation Trust and Institute of Lighting Professionals[3]. Specifically:

- Hours of operation should be minimised. External lighting at night should be avoided and subject to controls to prevent illumination when not required;
- Light-spill should be minimised. Use of directional luminaires, hoods and cowls is recommended to prevent light-spill, particularly onto semi-natural features/habitats. No lights with an upward light ratio should be installed;
- Luminaire choice should take into account impacts to bats. Warm-white spectrum lights below 2700Kelvin should be used to reduce the blue component of light. Additionally, luminaires should feature peak wavelengths higher than 550nm to avoid the component of light which is most harmful; and
- External lighting columns should be as low to the ground as possible.

5.12 Landscaping proposals should be designed to compensate for the loss of existing habitats on site. Provision of night-scented flowers to attract invertebrate prey, replacement of any removed street trees and maintenance of existing levels of soft landscaping should be ensured.

#### Roosting Bats

5.13 To compensate for the loss of potential roosting features present on the existing site, the built form of new buildings should feature integrated bat boxes. These should be located in areas away from artificial light sources and where they will receive good amounts of sun.

**Figure 5.3** Green&Blue Bat Block which can be incorporated within cladding / brick courses

## Enhancement

### Foraging and Commuting Bats

5.14 Many areas of the site not in use by foraging or commuting bats have the opportunity to be enhanced through site layout, landscaping proposals and ecological enhancement. Linear streets lined with street trees connecting parks and green infrastructure elements on the proposed development site to Kingston Cemetery and Crematorium will increase the ability of bats to move between foraging resources on- and off-site.

5.15 Bat-sensitive lighting recommendations outlined above should also significantly improve the value of the site for foraging and commuting bats by reducing external luminosity and light-spill below existing levels.

5.16 Landscaping should go above compensating for the loss of existing habitats on site. Biodiverse roofs should be included to provide a foraging resource. Parks and greenspaces within the site should feature ‘wild’ areas where grassland is mown less frequently, and wildflowers/scrub are able to establish. To measurably demonstrate an enhancement of the ecological value of the site, a Biodiversity Net Gain Assessment of the masterplan site will be undertaken. Specific interventions have been included to enhance the value of the site for foraging bats.

5.17 Given the existing low value of the site for foraging and commuting bats, the proposed development stands to significantly improve the site in this respect.

### Roosting Bats

5.18 In addition to compensating for the loss of existing potential roosting features, additional bat boxes should be provided to increase the number of roosting opportunities at site.

Specific detail relating to location, numbers and specification will be provided within phase specific Ecological Management Plans (EMPs) which should be secured through planning condition on a phase-by-phase basis.

# 6.0 SUMMARY & CONCLUSION

6.1 Greengage was commissioned by Cambridge Road (RBK) LLP to undertake bat surveys at the Cambridge Road Estate in the Royal Borough of Kingston upon Thames. The surveys sought to confirm the presence/likely absence of roosting bats from the site in order to identify suitable mitigation and enhancement recommendations. The survey also sought to identify the relative importance of the site for foraging and commuting bats, in addition to identifying spatial and temporal trends in the ways in which the site and/or features of the site are used.

6.2 The emergence/re-entry surveys confirmed the likely absence of roosting bats from the buildings surveyed. As such, impacts upon roosting bats are considered to be negligible and no formal mitigation is required for roosting bats.

6.3 Activity surveys identified spatial trends in use of the site by bats. Common and soprano pipistrelles were the most frequently encountered species. Foraging and commuting activity was limited to foraging in selected areas of green space on site and along Bonner Hill Road. Levels of activity were considered to be low-moderate, with a small number of bats being responsible for frequent use of the site.

6.4 As the development is to come forward in a phased approach, where data for a phase will be over 18 months old at the commencement of said phase, updated emergence/re-entry surveys will be required. The requirement for this will be assessed through an updated phase-specific PEA.

6.5 Key mitigation, compensation and enhancement actions are described to enable legislative and policy compliance (see context at Appendix 2), aiming to protect features of the site currently favoured by bats and to mitigate impacts upon them. Enhancement recommendations are outlined to improve the ecological value of the site, specifically for foraging, commuting and roosting bats.

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

# FIGURE 1 SURVEYOR LOCATIONS AND POTENTIAL ROOSTING FEATURES

# CAMBRIDGE ROAD ESTATE

- Approx Red Line Boundary
- Surveyor locations

**Potential Bat Roost Feature**

- Hole in soffit box
- Missing/broken brick
- Lifted roof tiles
- Gap into underground storage/parking
- Gap in boarded up window
- Holes in wall under stairwell
- Slipped/missing clay tiles
- Lifted ridge tile
- Lifted wooden cladding
- Tree with low roost potential

Greengage

Greengage Environmental Ltd
64 Great Suffolk Street, London SE1 0BL

www.greengage-env.com

**Fig 1.0 Access and Egress Points and Proposed Surveyor Locations**

0 100 200 300 400 500 m

# FIGURE 2 WALKED TRANSECT ROUTES AND STATIC DETECTOR LOCATIONS

# CAMBRIDGE ROAD ESTATE

Approx Red Line Boundary

**Transect Route**

1

2

Indicative Static Detector Locations

0 100 200 300 400 500 m

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**Fig 2.0 Proposed Bat Activity Survey Plan**

# FIGURE 3 BAT ACTIVITY HEATMAP

# APPENDIX 1 BAT SURVEY METHOD STATEMENT

# APPENDIX 2 RELEVANT LEGISLATION AND POLICY

## LEGISLATION

### 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 proposed development 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[4] 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: Spatial Development Strategy for Greater London[5]

The London Plan is comprised of separate chapters relating to a number of areas, including London's Places, People, Economy and Transport. The following policies have been identified within the London Plan, which relate specifically to ecology and this development.

Policy 2.18 Green Infrastructure

Policy 2.18 aims to protect, promote, expand and manage the extent and quality of, and access to, London's network of open and green spaces.

Policy 5.10 Urban Greening

This policy encourages the 'greening of London's buildings and spaces and specifically those in central London by including a target for increasing the area of green space (including green roofs etc) within the Central Activities Zone'.

Policy 5.11 Green Roofs and Development Site Environs

Policy 5.11 specifically supports the inclusion of planting within developments and encourages boroughs to support the inclusion of green roofs.

Policy 5.13 Sustainable Drainage

Policy 5.13 promotes the inclusion of sustainable urban drainage systems in developments and sets out a drainage hierarchy that developers should follow when designing their schemes.

Policy 7.19 Biodiversity and Access to Nature

'The Mayor will work with all the relevant partners to ensure a proactive approach to the protection, enhancement, creation, promotion and management of biodiversity in support of the Mayors Biodiversity Strategy.'

The Draft New London Plan (emerging)

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. Where harm to a SINC (other than a European (International) designated site) is unavoidable, the following approach should be applied to minimise development impacts:

    1. avoid adverse impact to the special biodiversity interest of the site
    2. minimise the spatial impact and mitigate it by improving the quality or management of the rest of the site
    3. seek appropriate off-site compensation only in exceptional cases where the benefits of the development proposal clearly outweigh the biodiversity impacts.

D. Biodiversity enhancement should be considered from the start of the development process.

E. Proposals which create new or improved habitats that result in positive gains for biodiversity should be considered positively, as should measures to reduce deficiencies in access to wildlife sites.

Policy G7 Trees and woodlands

C. 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[6]

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

### Kingston Core Strategy

Policy CS 3 - The Natural and Green Environment

The Council will protect and improve Kingston's valued natural and green environment by:

a. seeking to ensure that residents have access to an interconnected network of safe, well managed and maintained areas of open space through the implementation of routes in the 'South West London Greenways Network Expansion - Feasibility Report', Kingston's Green Spaces Strategy, Park Management Plans and Annual Implementation Plans

b. protecting Kingston's open space network from inappropriate development through its open spaces designations; Green Belt, Metropolitan Open Land (MOL), Thames Policy Area, Sites of Importance for Nature Conservation (SINCs), Local Nature Reserves, Local Open Space, School Open Spaces, Green Corridors, Green Chains and Allotments, as shown on the Proposals Map

c. facilitating regeneration, infrastructure upgrades and environmental improvement to the Hogsmill Environs

d. incorporating appropriate elements of public open space into new developments and/or making a financial contribution to improving existing open spaces, with additional facilities and better management to Green Flag standards

e. promoting the management of biodiversity in light of the threats arising from climate change and future development growth, by working in partnership with a range of organisations on projects to protect and enhance Kingston's Open Space Network. This will not only provide increased wildlife habitats, but will also link wider parts of Kingston, allowing easier movement and reducing isolation of habitats.

Policy DM 6 - Biodiversity

The Council will:

a. ensure new developments protect and promote biodiversity as part of sustainable design, through the inclusion of sustainable drainage, tree planting, soft landscaping, habitat enhancement and/or improvement, green roofs and new or improved semi-natural habitats, where appropriate

b. require an ecological assessment on major development proposals, or where a site contains or is next to significant areas of habitat or wildlife potential. This should be completed before design work or submission of the planning application.

c. ensure that new development does not result in a net loss of biodiversity and, where appropriate, should include new or improved habitats and provision for natural and semi-natural public green space, as set out in the Planning Obligations SPD or Community Infrastructure Levy charge.

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