APPENDIX 8.1: PRELIMINARY ECOLOGICAL APPRAISAL

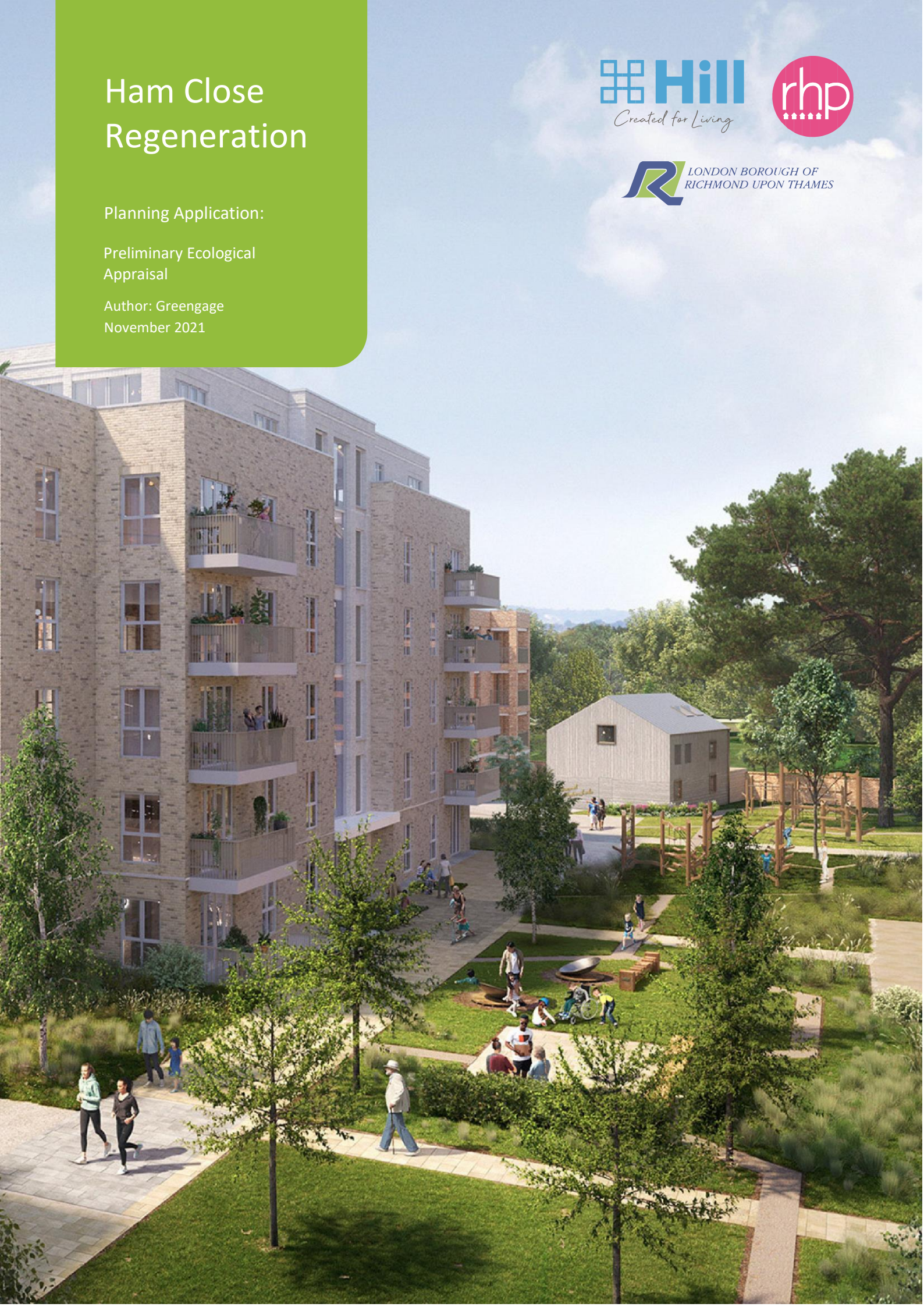
Ham Close Regeneration

Planning Application:

Preliminary Ecological Appraisal

Author: Greengage

November 2021



QA

Ham Close Estate – Preliminary Ecological Appraisal

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CONTENTS

1.0 EXECUTIVE SUMMARY

1.1 Greengage Environmental Ltd was commissioned to undertake a Preliminary Ecological Appraisal by Hill Residential of a site known as the Ham Close Estate within the London Borough of Richmond upon Thames.

1.2 This document is a report of this survey and has been produced to support a planning submission which seeks the demolition of the existing buildings on-site and phased mixed-use development comprising 452 residential homes (Class C3) up to six storeys, a Community/Leisure Facility (Class F2) of up to four storeys in height, a "Makers Lab" (sui generis) of up to two storeys together with basement car parking and site wide landscaping.

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

1.4 The survey area extends to approximately 4.7 hectares (ha) and comprises existing residential buildings arranged in five storey blocks, four storey deck access flats and three storey 'T' shaped blocks. The public realm consists of large areas of surface parking and amenity grassland with scattered trees. The eastern portion of the site comprises Ham Village Green.

1.5 The site walkover survey, undertaken on 8th and 14th September 2021, confirmed that the site has negligible potential to support the majority of protected/notable species with the exception of low potential for roosting bats (in seven of the existing buildings), low potential for badgers, moderate potential for hedgehogs and high potential for nesting birds on site.

1.6 Given the low potential identified, further survey is required in order to establish the presence/likely absence of roosting bats. A single emergence/ re-entry survey visit is recommended in accordance with the Bat Conservation Trust good practice guidelines[1]. Mitigation and compensation actions would be confirmed following the completion of the aforementioned surveys.

1.7 Mitigation recommendations for badgers, hedgehogs and nesting birds are described in this report, although no further surveys are recommended. These should be incorporated into a Construction Environmental Management Plan.

1.8 Given the proximity of the site to Richmond Park (a statutory designated site), further pre-cautionary assessment is recommended to assess the air quality impact of traffic generated by the proposed development once this data is available.

1.9 In accordance with the National Planning Policy Framework, local policy drivers and emerging legislation, proposals should seek to provide a 10% net gain in biodiversity with recommendations made for the landscaping proposals to assist in achieving this.

The net gain delivered should be evidenced in a separate Biodiversity Impact Assessment using the Defra 3.0 metric. Further to this, an Ecological Management Plan should be produced and implemented for the site providing greater detail on the enhancement measures, and to ensure they retain their ecological benefit in the long term.

2.0 INTRODUCTION

2.1 Greengage Environmental Ltd was commissioned to undertake a Preliminary Ecological Appraisal (PEA) by Hill Residential of a site known as the Ham Close Estate within the London Borough of Richmond upon Thames.

2.2 This document is a report of this survey and has been produced to support a planning submission which seeks the demolition of the existing buildings on-site and phased mixed-use development comprising 452 residential homes (Class C3) up to six storeys, a Community/Leisure Facility (Class F2) of up to four storeys in height, a "Makers Lab" (sui generis) of up to two storeys together with basement car parking and site wide landscaping.

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

SITE DESCRIPTION

2.4 The assessment site covers an area of approximately 4.7 hectares (ha) and is centred on National Grid Reference TQ 0030585, OS Co-ordinates 550309, 158566.

2.5 The site comprises existing residential buildings arranged in five storey blocks, four storey deck access flats and three storey 'T' shaped blocks. The public realm consists of large areas of surface parking and amenity grassland with scattered trees. The Youth Centre and associated car park occupies a central location on the site. Ham Village Green sits at the eastern edge of the site.

2.6 The site is bound by Woodville Road to the north, Wiggins Lane and Ham Street to the east, Ham Clinic and Ashburnham Road to the south and St Richard's C of E Primary School playing fields and the children's garden pre-school to the west.

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[2] and the Chartered Institute of Ecological and Environmental Management (CIEEM) (2017) Guidelines for Preliminary Ecological Appraisal[3], in accordance with BS42020:2013: Biodiversity[4]. 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 8th and 14th September 2021.

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

3.4 Greengage undertook the site walkovers in weather conditions that varied between damp and sunny. Features within the site boundary and accessible features immediately bordering it were evaluated and the extent and distribution of habitats and plant communities were recorded, and supplemented with target notes on areas or species requiring further commentary. Fauna using the area were recorded and areas of habitat suitable for statutorily protected species were identified where present, with an active search carried out for evidence of such use.

DESK TOP REVIEW

3.5 A review of readily available ecological information and other relevant environmental databases (included Defra's Multi-Agency Geographic Information for the Countryside (MAGIC) website[5]) 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

3.6 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

3.7 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.

3.8 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.

3.9 The species surveyed for included:

Badger (Meles meles)

3.10 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)

3.11 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*[6] and methods given in English Nature's (now Natural England) *Bat Mitigation Guidelines*[7] 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.

3.12 Definite signs of bat activity were taken to be:

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

3.13 Signs of possible bat presence were taken to be:

- Stains; and
- Moth and butterfly wings.

3.14 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.

3.15 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)

3.16 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

3.17 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)

3.18 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.

Water Vole (Arvicola terrestris)

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

Otter (Lutra lutra)

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

Birds

3.21 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

3.22 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

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

SURVEYORS

3.24 James Bumphrey, who completed the site walkover and wrote this report, 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). James has over 8 years' experience in ecological consultancy.

3.25 Mitch Cooke, who reviewed this report, has a degree in Ecology (Hons), an MSc in Environmental Assessment and Management, and is a Full member of CIEEM with over 35 years' experience in ecological survey and assessment. Mitch has set up and developed ecological and environmental teams for nearly 20 years and has undertaken and managed numerous ecological surveys and assessments. He is the Director at Greengage and manages the team.

3.26 Mitch 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

3.27 The site walkover survey visits were completed in September during the optimal season for botanical identification.

3.28 An internal inspection of the buildings on site was not possible at the time of the survey, owing to access constraints relating to the covid-19 pandemic. However, as all buildings on site are flat roofed (no internal roof void space) this is not considered to be a significant constraint to the assessment of bat roosting potential on site.

3.29 A small section of the site at the western was not accessible owing to access constraints associated with the school. However, a suitable level of assessment was made from the boundary of the school.

4.0 RESULTS

DESK TOP 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. However, Richmond Park which is covered by three statutory designations (see table below) is located 1.3km from the site. Further to this there are two statutory sites of local importance within a 2km radius of the site. Both of these sites are Local Nature Reserves (LNRs), the closest being Ham Lands located 300m to the southwest of the site. Further details of these sites can be found in table 4.1 below.

4.2 Records from GIGL also identified 18 non-statutory sites, all Sites of Importance for Nature Conservation (SINCs) within 2km of the site boundary. SINCs are recognised by Local Planning Authorities (LPAs) as important wildlife sites.

4.3 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 Special Area of Conservation (SAC) National Nature Reserve (NNR) Site of Special Scientific Interest (SSSI) Metropolitan SINC	1.3km northeast	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* (qualifying feature of the SAC). Habitats include dry acid and neutral grassland, species-poor wet grassland, mire, plantation woodlands, streams, ponds, veteran trees, scrub and bracken.
Ham Lands LNR	300m southwest	Ham Lands is an area of infilled gravel pits, some old water meadows and a narrow belt of woodland. The area has developed into a mosaic of different ecological zones. The site is of considerable value for informal recreation and is well used by local people and children.
Ham Common	660m	Most of the site has been succeeded by birch and oak woodland. There is a lot of dead wood habitat valuable for

Site Name	Approximate Location	Description
Local Nature Reserve (LNR)	southeast	invertebrates, fungi and cavity-nesting birds such as woodpeckers. There are several wet hollows within the woodland which support breeding frogs during wet springs where there is sufficient standing water. The common is divided in two by a road—in the northern section the woodland is generally younger with a denser understorey and more diverse ground flora. A more extensive area of grassland survives at the western end of the common with a wide range of plants typical of dry acid grassland.
Non-Statutory		
SINCs of Metropolitan Importance		
River Thames and Tidal Tributaries	350m southwest	The River Thames and the tidal sections of creeks and rivers which flow into it comprise a number of valuable habitats not found elsewhere in London. The mud-flats, shingle beach, inter-tidal vegetation, islands and river channel itself support many species from freshwater, estuarine and marine communities which are rare in London. The site is of particular importance for wildfowl and wading birds.
SINCs of Borough Grade II Importance		
The Copse, Holly Hedge Field and Ham Avenues	220m east	A flowery meadow, a stand of ancient oaks and an historic avenue of lime trees combine to provide habitat for a wealth of animals and plants.
Petersham Lodge Wood and Ham House Meadows	670m north	A small wood and two grassy fields beside the River Thames, which flood on high spring tides, introducing an interesting wetland element to the plants at this site.
SINCs of Local Importance		
Ham Common West	350m south	The western part of Ham Common consists of close-mown acid grassland, with an attractive pond. The wooded, eastern section of the common is included in the Richmond Park Site of Metropolitan Importance
Cassel Hospital	580m south	Pleasant hospital grounds, with lawns of acid grassland, a fringe of woodland and an old walled garden.

Biodiversity Action Plans

4.4 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.

4.5 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*.

4.6 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).

4.7 There were no UK BAP priority habitats present at site or in the immediate vicinity.

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.

4.9 The relevant local BAPs are Richmond BAP and London BAP.

London BAP

4.10 The London BAP[7] lists 26 priority habitats and species to protect and enhance, which are of importance to London's nature conservation. Some of these species and habitats have Species Action Plans (SAPs) and Habitat Action Plants (HAPs).

4.11 Notable features of the London BAP that are of relevance to this report are:

- Build environment HAP;
- Bats SAP;
- House sparrow SAP; and
- Starling (priority species).

London Borough of Richmond upon Thames BAP

4.12 This LBAP for the Borough sets out the framework for the protection, conservation and enhancement of wildlife within the Borough. Features of the LBAP that are of relevance to this report are listed below:

- Lowland acid grassland HAP;
- Bats SAP;
- Hedgehogs SAP;
- House sparrows SAP;
- Swifts SAP;
- Stag beetle SAP; and
- Pollinators SAP.

Species Record

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

- Bird species including, swift (*Apus apus*), house sparrow (*Passer domesticus*) and starling (*Sturnus vulgaris*).
- Bat species including, common pipistrelle (*Pipistrellus pipistrelles*), soprano pipistrelle (*Pipistrellus pygmaeus*), Nathusius's pipistrelle (*Pipistrellus nathusii*), noctule (*Nyctalus noctule*), Leisler's (*Nyctalus leisleri*), Natterers (*Myotis nattereri*), whiskered/Brandt's (*Myotis mystacinus/brandtii*), Daubenton's (*Myotis daubentonii*), brown long-eared (Plecotus auritus) and serotine (*Eptesicus serotinus*).
- Mammals - badger (*Meles meles*) and hedgehog (*Erinaceus europaeus*).
- Stag beetle (*Lucanus cervus*).
- London Invasive Species Initiative species ring-necked parakeet (*Psittacula krameri*).

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

DETAILED DESCRIPTION OF SITE: HABITATS

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

- Buildings and hardstanding (J3);
- Amenity grassland (J1.2);
- Scattered trees (A3.3); and
- Introduced shrub (J1.4).

Buildings

4.16 There are several building types on site as summarised below:

- Residential blocks:
  - Five storey residential blocks of brick with render construction with flat roofs.
  - Four storey deck access flats of brick with render construction with flat roofs.

- Three storey 'T' shaped residential blocks of brick with render construction with flat roofs.

- Single storey garage buildings of brick construction with corrugated roofs.
- Outbuildings:
  - Single storey brick refuse/storage buildings associated with residential blocks.
  - Single storey brick building with a pitched tiled roof.
- Part concrete, part brick, community centre.

Plate 4.1 Example flat roofed residential block

Plate 4.2 Example garage block

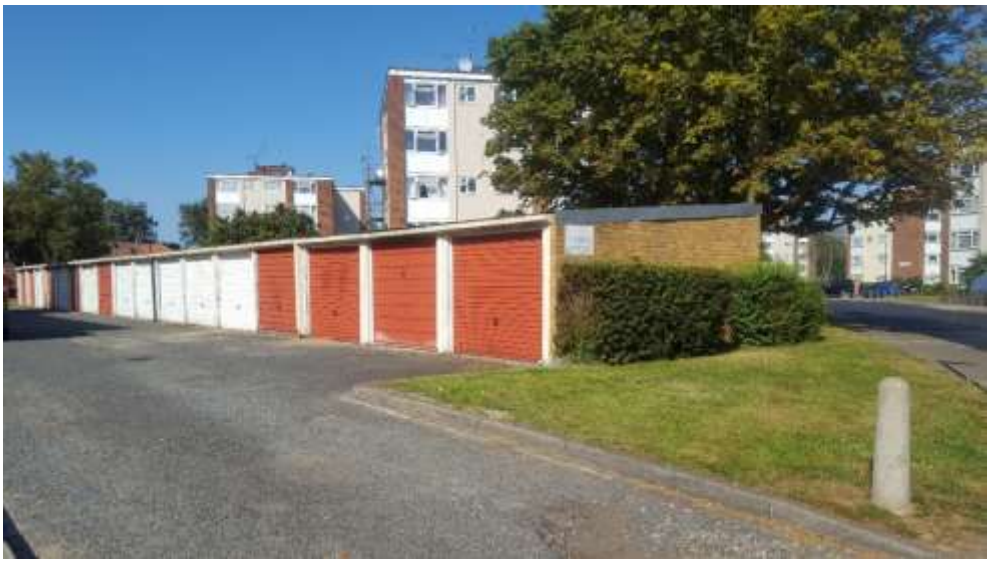


Plate 4.3 Outbuilding with pitch tiled roof

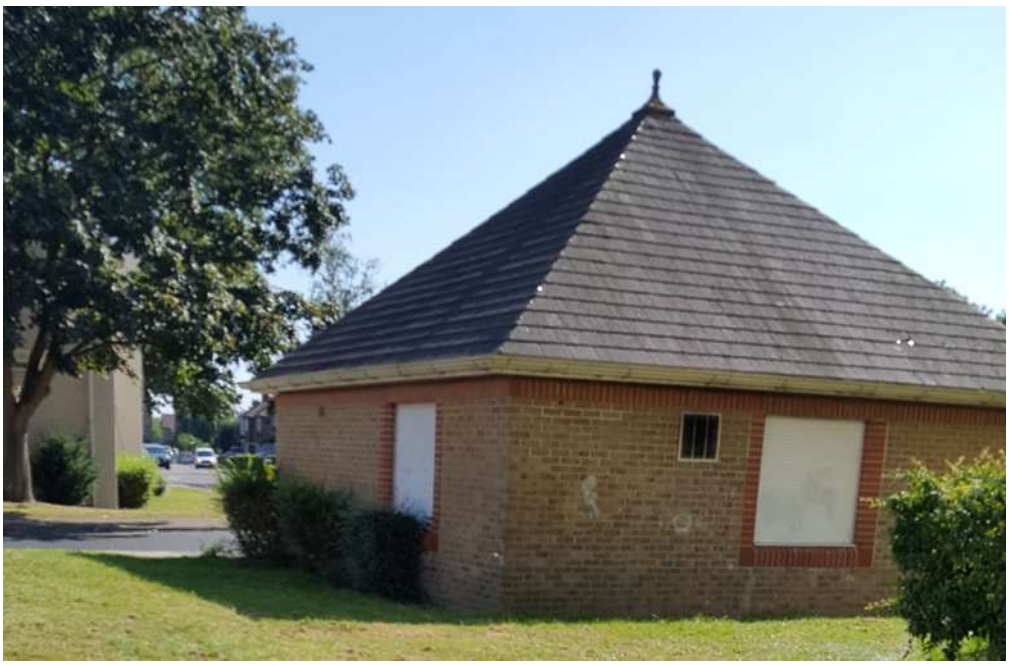


Plate 4.4 Community centre building

Hardstanding

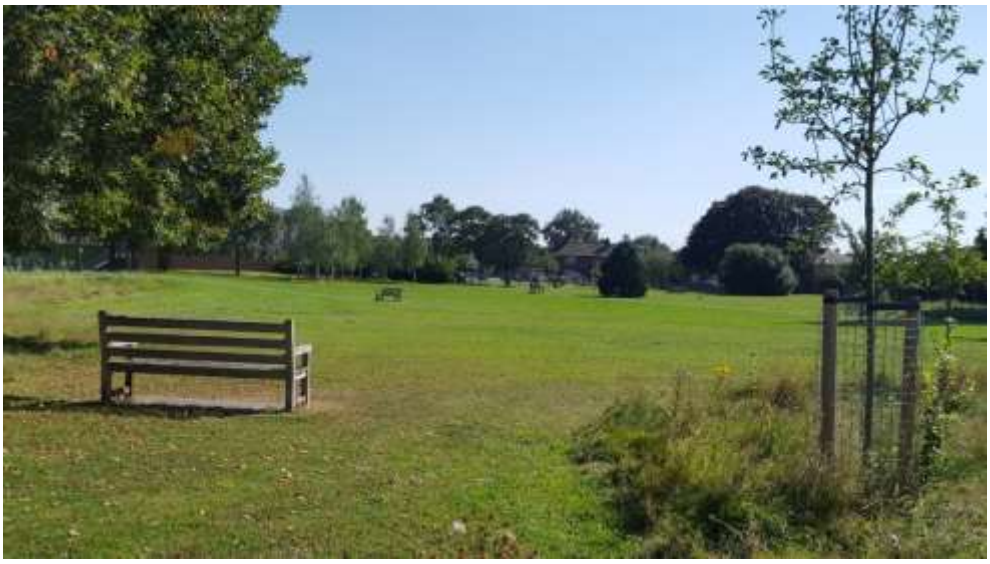
4.17 Hardstanding largely comprises internal roads, pavements and parking areas. In many areas across the site ephemeral/short perennial vegetation has populated the cracks in the hardstanding, with dominant species including dandelion (*Taraxacum officinalis*), chickweed (*Stellaria media*), perennial rye grass (*Lolium Perenne*) and moss species.

Amenity Grassland

4.18 The majority of grassland on site is comprised of regularly mown, short amenity grassland. Species present include perennial ryegrass, wall barley (*Hordeum murinum*), white clover (*Trifolium repens*), self-heal (*Prunella vulgaris*), daisy (*Bellis perennis*), ribwort plantain (*Plantago lanceolata*) and dandelion.

4.19 In several areas of Ham Village Green the grassland appears to be less regularly mown and has a longer sward (Target Note 1, Figure 1). As a consequence of this a greater diversity of species visible including, in addition to the species above, yarrow (*Achillea millefolium*), mallow (*Malva sylvestris*), ragwort (*Jacobaea vulgaris*), poppy (*Papaver rhoeas*) and red clover (*Trifolium pratense*).

Plate 4.5 Ham Village Green showing shorter and longer sections of grassland



Scattered Trees

4.20 Trees of varying ages (ranging up to mature) are scattered across the amenity grassland on site. Prominent species include ash (*Fraxinus excelsior*), silver birch (*Betula pendula*), cherry (*Prunus* sp.), Norway maple (*Acer platanoides*), whitebeam (*Sorbus* sp.) and Lombardy poplar (*Populus nigra*).

Plate 4.6 View of typical scattered trees with amenity grassland

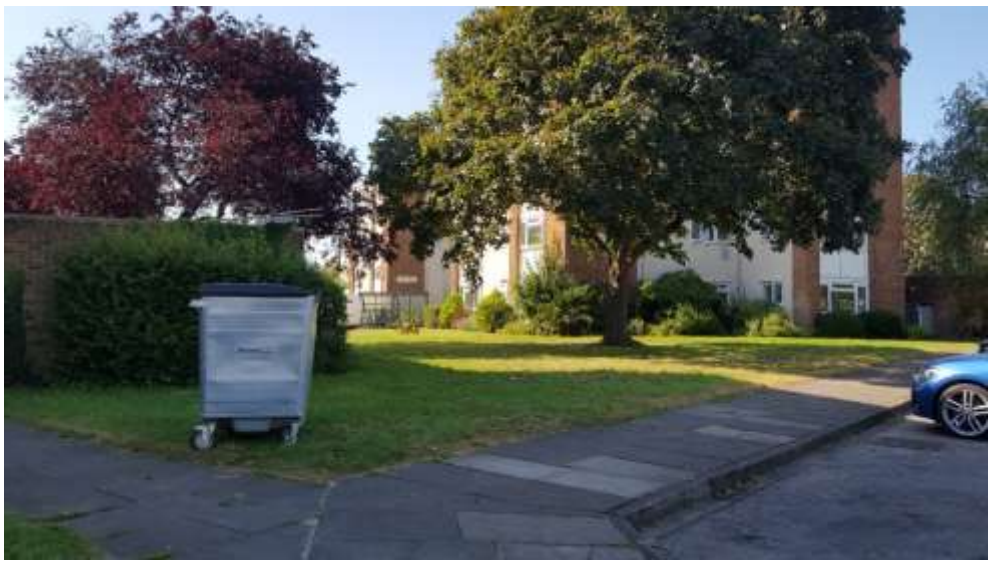
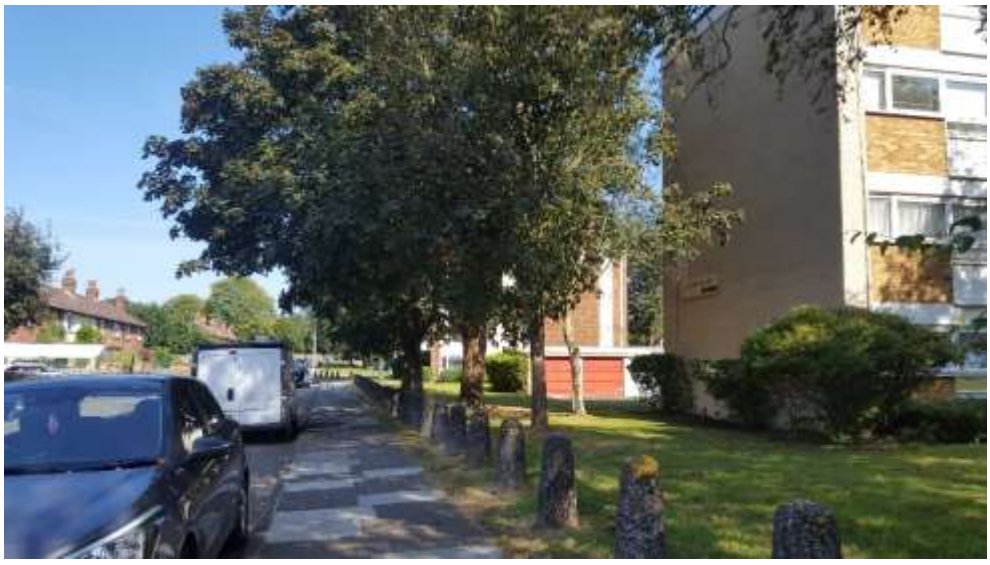


Plate 4.7 Trees adjacent to pavement and highway



Introduced Shrub

4.21 Beds of maintained, low, introduced shrub sit adjacent to many of the buildings (Target Note 2, Figure 1). Species present include *Salvia* sp., *Rosa* sp., *Weigela* sp., *Laurus* sp., *Euonymus* sp., *Yucca* sp., *Berberis* sp. and *Clematis* sp.

4.22 At the southern edge of the site, in addition to the formally planted introduced shrub, are two overgrown raised planters which would appear to have previously been used for growing food (Target Note 3, Figure 1).

4.23 A wider, less formally maintained, strip of shrub is present within the grounds of the school at the very western edge of the site (Target Note 4, Figure 1).

Plate 4.8 Shrubs adjacent to bin store structure

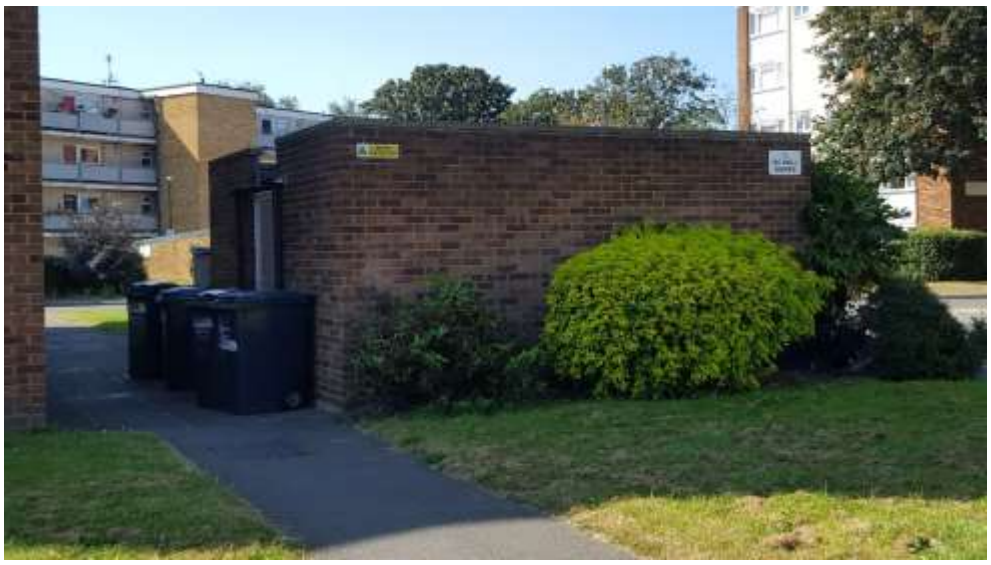


Plate 4.9 Rosa sp. adjacent to pavement

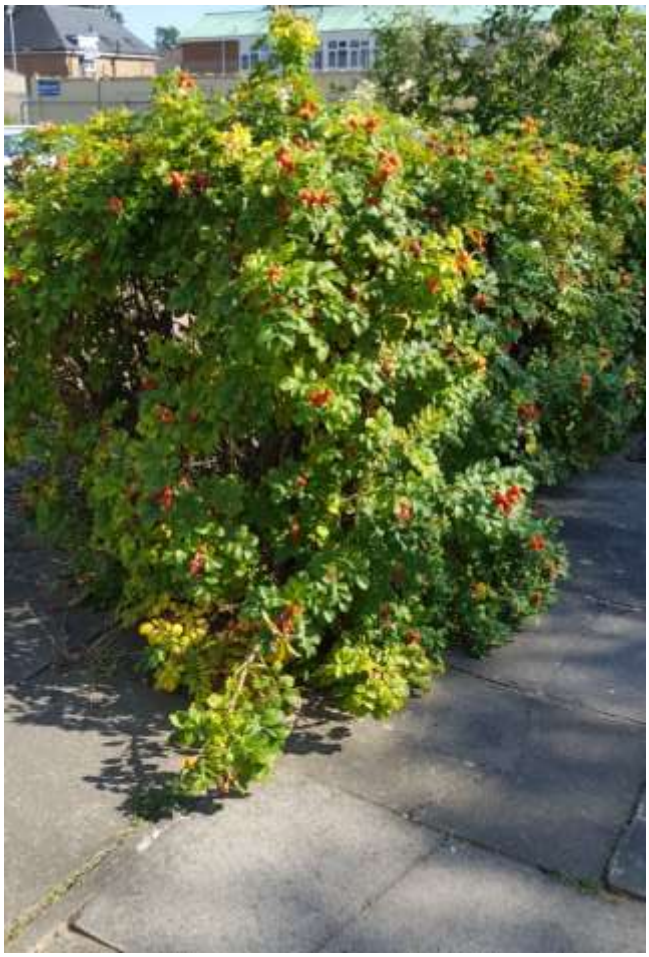


Plate 4.10 Raised planters at southern end of the site

DETAILED DESCRIPTION OF SITE: SPECIES

Badger

4.24 There are several records for badger within a 2km radius of the site with large areas of grassland and woodland within the wider area. However, whilst the grassland on site would present suitable foraging habitat, it is significantly isolated from the aforementioned offsite habitat by existing buildings and roads. The potential for foraging badger to be present on site is therefore considered to be **low**.

Bats

Foraging

4.25 There are records for multiple bat species within a 2km radius of the site with extensive expanses of suitable foraging habitat in the surrounding area. On the site itself, the scattered trees are likely to provide a foraging resource for bats, although value is limited by the extensive existing street and security lighting. Greater value is associated with Ham Village Green which is likely to be significantly darker than built up areas of the site. Overall the potential for bats to be foraging on and adjacent to the site is **moderate**.

Roosting

4.26 The buildings and structures on site are generally of limited value for bats, with flat roofs and the associated adjacent existing lighting. Whilst the buildings/structures appear to be subject to a level of maintenance, as is set out in the table below, a number of roosting opportunities were noted. All features were considered to provide **low** potential.

Table 4.2 Bat Scoping Table (see Figure 1 for building locations)

Building Number	Description	Roosting Features	Roosting Potential
1	Three storey 'T' shaped residential block of brick with render construction with flat roof.	None present, exterior well-maintained with gap under fascia blocked by wire mesh.	Negligible
2	Single storey brick building with a pitched slate tiled roof.	Missing tile on roof, potential for roosting limited by adjacent street lighting.	Low
3	Four storey deck access flats of brick with render construction with flat roof.	None present, exterior well-maintained with no visible gap under fascia.	Negligible
4	Single storey garage block of brick construction with corrugated roof.	None present, no suitable cracks or crevices visible with no clear potential entry points.	Negligible
5	Five storey residential block of brick with render construction with flat roof.	Possible gap under fascia, with no wire mesh visible. Potential limited by adjacent street lighting.	Low
6	Single storey brick refuse/storage building associated with residential block.	No potential roosting features noted. Structure open and likely to be subject to high level of disturbance.	Negligible
7	Five storey residential block of brick with render construction with flat roof.	Possible gap under fascia, with no wire mesh visible. Potential limited by adjacent street lighting.	Low
8	Single storey brick refuse/storage building associated with residential block.	No potential roosting features noted. Structure open and likely to be subject to high level of disturbance.	Negligible
9	Five storey residential block of brick with render construction with flat roof.	Possible gap under fascia, with no wire mesh visible. Potential limited by adjacent street lighting.	Low
10	Single storey brick refuse/storage building associated with residential block.	No potential roosting features noted. Structure open and likely to be subject to high level of disturbance.	Negligible
11	Four storey deck access flats of brick with render construction with flat roof.	None present, exterior well-maintained with no visible gap under fascia.	Negligible
12	Single storey garage block of brick construction with corrugated roof.	None present, no suitable cracks or crevices visible with no clear potential entry points.	Negligible
13	Five storey residential block of brick with render construction with flat roof.	Possible gap under fascia, with no wire mesh visible. Potential limited by adjacent street lighting.	Low

14	Single storey brick refuse/storage building associated with residential block.	No potential roosting features noted. Structure open and likely to be subject to high level of disturbance.	Negligible
15	Single storey brick refuse/storage building associated with residential block.	No potential roosting features noted. Structure open and likely to be subject to high level of disturbance.	Negligible
16	Five storey residential block of brick with render construction with flat roof.	Possible gap under fascia, with no wire mesh visible. Potential limited by adjacent street lighting.	Low
17	Five storey residential block of brick with render construction with flat roofs.	Possible gap under fascia, with no wire mesh visible. Potential limited by adjacent street lighting.	Low
18	Single storey brick refuse/storage building associated with residential block.	No potential roosting features noted. Structure open and likely to be subject to high level of disturbance.	Negligible
19	Single storey garage block of brick construction with corrugated roof.	None present, no suitable cracks or crevices visible with no clear potential entry points.	Negligible
20	Four storey deck access flats of brick with render construction with flat roofs.	None present, exterior well-maintained with no visible gap under fascia.	Negligible
21	Three-storey 'T' shaped residential block of brick with render construction with flat roof.	None present, exterior well-maintained with gap under fascia blocked by wire mesh.	Negligible
22	Part concrete, part brick, community centre	No potential roosting features noted. The solid concrete and brick walls were lacking in suitable cracks or crevices.	Negligible
23	Five storey residential block of brick with render construction with flat roof.	Possible gap under fascia, with no wire mesh visible. Potential limited by adjacent street lighting.	Low
24	Single storey brick refuse/storage building associated with residential block.	No potential roosting features noted. Structure open and likely to be subject to high level of disturbance.	Negligible
25	Five storey residential block of brick with render construction with flat roof.	Possible gap under fascia, with no wire mesh visible. Potential limited by adjacent street lighting.	Low
26	Single storey brick refuse/storage building associated with residential blocks.	No potential roosting features noted. Structure open and likely to be subject to high level of disturbance.	Negligible
27	Five storey residential block of brick with render construction with flat roof.	Possible gap under fascia, with no wire mesh visible. Potential limited by adjacent street lighting.	Low

28	Single storey brick refuse/storage building associated with residential block.	No potential roosting features noted. Structure open and likely to be subject to high level of disturbance.	Negligible

4.27 As is set out above, the primary potential roosting features present on site are gaps under facias boards. These are considered to offer potential for occasional seasonal roosting of low numbers of common bat species (e.g *Pipistrellus*).

4.28 All trees were considered to provide **negligible** roosting potential owing to the lack of potential roosting features present.

Plate 4.11 Gap under fascia on five storey residential block

Plate 4.12 Outbuilding with loose tile

Birds

4.29 The scattered trees and shrubs on site provide nesting habitat (**high** potential) for a range of common and widespread bird species. In addition to the this, a significant number of ring-necked parakeet (LISI species) were observed loafing on the roofs of a number of buildings with one individual noted removing the wire mesh from beneath the fascia board on a five storey block. Whilst, nesting could not be confirmed, the potential in the buildings was again considered to be **high**.

4.30 Additional bird species noted on site during the site walkover were woodpigeon (*Columba palumbus*), feral pigeon (*Columba livia*), carrion crow (*Corvus corone*), blue tit (*Cyanistes caeruleus*) and starling (BAP species).

Hedgehog

4.31 There are records of hedgehog (BAP species) within a 2km radius of the site. The site itself provides some suitability for hedgehog in the form of shrubs and grassland with additional surrounding offsite habitat in the form of the private residential gardens. Overall, the potential for hedgehog to be present on site is **moderate**.

Other Protected and Notable Species

4.32 The potential for all other protected and notable species including water vole, otter, dormouse, GCN, stag beetle and reptiles was considered **negligible** given the nature of the existing site with the formal landscaping present.

5.0 EVALUATION AND DISCUSSION

BASELINE SUMMARY

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

Table 5.1 Baseline Summary

Receptor	Presence / Potential Presence	Potential Impact in Lieu of Mitigation	Recommendations
Designated Sites: Statutory	Present within a 2km radius of the site	All statutory designated sites are located over 300m from the site and consequently no construction phase impacts are anticipated. It is understood that proposals will lead to a net increase in residents on site and this has potential to lead to increased recreational pressure on the statutory designated sites. However, significant negative impacts are not anticipated as all designated sites are subject to existing management for recreation. Furthermore, there are additional greenspaces within closer proximity to the site, with Ham Village Green sitting on the site itself. At this stage additional traffic generation from the development is anticipated to be minimal. However, habitats associated with Richmond Park may be sensitive to increased pollutants.	Further pre-cautionary assessment of the potential air quality impact of the development on Richmond Park is recommended following confirmation of traffic generation numbers.
Designated Sites: Non-Statutory	18 SINCs present within 2km of the site	All SINCs are beyond 200m from the site and consequently no construction phase impacts are anticipated.	None required, no impacts anticipated.

Receptor	Presence / Potential Presence	Potential Impact in Lieu of Mitigation	Recommendations
		Proposals will lead to a net increase in residents on site and this has potential to lead to increased recreational pressure on the SINCs. However, a significant proportion of these SINCs are over 1km from site (1km is the walking distance used by GiGL to assess accessibility to SINCs) with multiple alternative greenspaces within closer proximity. Further to this, the remaining sites within a 1km radius are subject to active management for recreation. No operational phase impacts are therefore anticipated.	
Badger	Low	Potential loss of low value foraging habitat through the construction of new buildings, although suitable habitat to be retained on Ham Village Green. Any badger that are passing over the site would have potential to fall and become trapped in excavations.	Suitable best practice construction management actions are outlined below. These should be incorporated into a Construction Environmental Management Plan (CEMP).
Bats	Low	Limited foraging value associated with trees on site with a high level of existing lighting. Potential to reduce lighting levels on site through sensitive lighting regime. Given the buildings will be removed in order to facilitate the development, this could lead to the potential destruction of bat roost(s).	A bat sensitive lighting strategy is recommended to be incorporated. Further survey is recommended to confirm presence/absence of roosting bats on site. Mitigation and compensation for any roosting bats identified will be confirmed following the completion of the additional surveys. However, a preliminary mitigation strategy is outlined below in the event roosting bats are identified.
Birds	High	Removal of some of the trees and all of the buildings on site will be required in order to facilitate the development proposals. This could stand to kill, injure or disturb nesting birds if undertaken within the nesting bird season.	Given the potential for nesting birds it is recommended that clearance of sensitive areas of the site are undertaken outside of nesting birds season or after the completion of a nesting bird survey. Further details are provided below.
Hedgehog	Moderate	Loss of potential foraging habitat in the form of grassland and shrubs.	Given the potential presence of hedgehog in shrub habitat it is recommended that clearance of this vegetation is undertaken in a sensitive staged manner. Compensatory habitat should be provided. Further details are provided below.

MITIGATION, COMPENSATION AND ENHANCEMENT

Badger

5.2 Given the potential presence of badger on site and in the vicinity, best practice protection measures are recommended to be implemented and incorporated into a CEMP to ensure badger (and other small to medium sized mammals) are protected throughout the works:

- Any trenches or deep pits within the development site that are to be left open overnight should be provided with a means of escape should a badger enter. The simplest method for this would be in the form of a roughened plank of wood placed in the trench as a ramp to the surface. This is particularly important if the trench fills with water.
- Any trenches/pits should be inspected each morning to ensure no badgers have become trapped overnight. Should a badger become trapped in a trench it will likely attempt to dig itself into the side of the trench, by forming a temporary sett.
- The storage of topsoil or other 'soft' building materials on site should be given careful consideration. Badgers will readily adopt such mounds as setts. So as to avoid the adoption of any mounds, these should be kept to a minimum and any essential mounds subject to daily inspections with consideration given to temporarily fencing any such mounds to exclude badgers.
- The storage of any chemicals/liquids on site should be well away from the boundaries, and contained in such a way that they cannot be accessed or knocked over by any roaming badgers.
- Fires should only be lit in secure compounds away from areas of potential badger activity and not allowed to remain lit during the night.
- Food and litter should not be left within the working area overnight.
- The above recommendations will also ensure the protection of hedgehogs and other mammals.

Bats

Foraging

5.3 Given the sites suburban location the site is already subject to existing levels of noise and light disturbance, from traffic and street lighting. However, it is recommended that the lighting to be incorporated on site is designed to prevent increasing light levels above the current baseline level with potential to provide a reduction in light disturbance. In order to achieve this, the lighting strategy should be designed in line with guidance from

the BCT and Institute of Lighting Professionals (ILP)[8], and should consider the inclusion of the following as appropriate:

- Use of low-UV warm-white LED bulbs with directional, downward facing and shielded lights;
- Lighting pointing away from areas of newly implemented green infrastructure on site, bat boxes and existing green infrastructure within the zone of influence of the development; and
- External lights subject to curfew controls where possible with lights on movement sensors to reduce light pollution when not needed.

Roosting

Surveys

5.4 Owing to the protection afforded to bats, further survey, in line with BCT[1] guidelines is required in order to determine the presence/likely absence of roosting bats within the buildings on site. Owing to the low roosting potential of the buildings a single emergence/re-entry survey would be required in the bat survey season (May-September inclusive).

Potential Mitigation and Compensation

5.5 Mitigation and compensation will be confirmed following the completion of the recommended additional emergence/re-entry survey. However, given the sites urban location, the nature of the potential roosting features and the species records in the area, it is considered that any roosts are likely to be low conservation status roosts supporting a low number of individuals. The likely mitigation strategy in the event that roosts of this nature are recorded is outlined below, this would be undertaken under a licence from Natural England:

- Installation of compensatory bat boxes in retained trees (or on poles) on site.
- Demolition of roosting features under supervision of a licenced ecologist.
- Incorporation of additional compensatory roosting features in new buildings.

Nesting Birds

5.6 In order to mitigate the risk of disturbing, injuring or killing nesting birds tree removal and demolition of relevant buildings should take place outside of the nesting bird season (March – September inclusive). If this is not possible clearance may only take place after a suitably qualified ecologist (SQE) has confirmed the absence of nesting birds.

Hedgehog

5.7 In order to minimise the potential for killing or injuring of hedgehogs (and other small to medium sized mammals) during site clearance, removal of dense vegetation should be undertaken in two phases, by cutting to 30cm in the first instance, then to ground level after that. The vegetation should be checked for mammals by hand search between these two cuts. Should any hedgehogs be found, they should be moved to a suitable area of habitat that is not subject to clearance.

GENERAL LANDSCAPING RECOMMENDATIONS

5.8 In accordance with the National Planning Policy Framework, local policy drivers and emerging legislation (Appendix 1) proposals should seek to provide a 10% net gain in biodiversity. This should be evidenced in a separate Biodiversity Impact Assessment (BIA) using the Defra 3.0 metric.

5.9 Green infrastructure should be designed to provide ecological connectivity across the site complementing existing ecological features on site and in the surrounding areas. The planting mix incorporated should be specified with consideration to future climate change adaptation and mitigation requirements.

5.10 To enable proposals to deliver the desired net gain figure, the following measures should be considered for incorporation into the landscaping plans:

- Provision of substrate based biodiverse living roofs with enhancement features (e.g stone circles, 'designed' substrate piles and rope coils) alongside wildflower turf/blanket green living roofs;
- Green walls (trellis based system with climbing plants);
- Retention of existing trees where possible and provision of new street trees;
- Species rich amenity grassland;
- Sustainable Drainages features such as rain gardens;
- Pollinator friendly shrub and herbaceous species planting in accordance with the LBAP Pollinator SAP;
- Invertebrate features such as log piles and stag beetle (BAP species) loggeries; and
- Incorporation of bird and bat boxes to target relevant BAP species (e.g house sparrow and swift).

5.11 According to the GiGL records received, Ham Village Green was identified as being potentially suitable for the creation of acid grassland. Therefore, in addition to the features listed above, consideration should also be given to the potential for the creation of acid grassland within this part of the site.

5.12 An Ecological Management Plan (EMP) should be produced and implemented for the site providing greater detail on the ecological landscaping features selected, and to ensure they retain their ecological benefit in the long term. The construction phase protection measures outlined above should be incorporated into a CEMP for the site.

6.0 SUMMARY AND CONCLUSION

6.1 Greengage was commissioned to undertake a PEA by Hill Residential of a site known as the Ham Close Estate within the London Borough of Richmond Upon Thames.

6.2 Data received from the desk top study and gathered during the PEA site walkover have confirmed that the site has negligible potential to support all protected/notable species with the exception of low potential for badger, low potential for roosting bats, moderate potential for hedgehog and high potential to support nesting birds.

6.3 Given the low potential identified, a further emergence/re-entry survey is recommended to confirm the presence/likely absence of roosting bats. The requirement for any mitigation and compensation actions would be confirmed following the completion of the aforementioned surveys.

6.4 Mitigation recommendations for badger, hedgehog and nesting birds are described in this report. These actions should be incorporated into a CEMP for the development.

6.5 Key ecological landscaping recommendations are described to enable policy compliance, aiming to achieve gains in biodiversity for the site. Further, details of these should be provided in an EMP with the potential net gain presented in a BIA report.

FIGURE 1 SITE PLAN AND HABITAT MAP

Ham Close

Approximate Site Boundary
Target Notes

Habitats

J3.6 - Buildings
J3.6.1 - Hardstanding
J1.2 - Amenity Grassland
A3.1 - Scattered trees

0 20 40 60 80 100 m

N

Greengage

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Fig 1.0 Site Plan and Habitat Map

Project Number 551842
November 2021
1 to 2000 at A3

APPENDIX 1 RELEVANT LEGISLATION AND POLICY

LEGISLATION

Current key legislation relating to ecology includes the Wildlife and Countryside Act 1981 (as amended); The Conservation of Habitats and Species Regulations 2019 ('Habitats & Species Regulations'), The Countryside and Rights of Way Act 2000 (CRoW Act), and The Natural Environment and Rural Communities Act, 2006.

The Conservation of Habitats and Species (2017)

The Conservation of Habitats & Species Regulations replace The Conservation (Natural Habitats, etc.) Regulations 1994 (as amended), and transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora ('EU Habitats Directive'), and Council Directive 79/409/EEC on the Conservation of Wild Birds ('Birds Directive') 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 (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 (UK BAP). Despite the devolution of the UK BAP and succession of the UK Post-2010 Biodiversity Framework (and Biodiversity 2020 strategy in England), as a response to the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020 and EU Biodiversity Strategy (EUBS), this list (now referred to as the list of Species and Habitats of Principal Importance in England) will be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under section 41 of the Natural Environment and Rural Communities Act 2006 'to have regard' to the conservation of biodiversity in England, when carrying out their normal functions.

Biodiversity Action Plans

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

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

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

Legislation Relating to Nesting Birds

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

Legislation Relating to Bats

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

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

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

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

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

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat; and
- Intentionally or recklessly obstruct access to a bat roost.

This legislation applies to all bat life stages.

The implications of the above in relation to the proposals are that where it is necessary during construction to remove trees, buildings or structures in which bats roost, it must

first be determined that work is compulsory and if so, appropriate licenses must be obtained from Natural England.

Legislation Relating to Natura 2000 Sites and Habitats Directive Annex I/II Species

European Commission Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Fauna and Flora ('EU Habitats Directive'), and Council Directive 79/409/EEC on the Conservation of Wild Birds ('Birds Directive') form the cornerstones of nature conservation legislation across EU member states. Priority species requiring protection across Europe are listed in the Annexes of these Directives. Regulation 63(1) of the Conservation of Habitats and Species Regulations 2017 and Offshore Marine Conservation Regulations, 2007 (as amended) transpose these directives into UK law and set the basis for the designations of protected sites (known as Natura 2000 sites; Special Areas of Conservation under the Habitat Directive and Special Areas of Protection under the Birds Directive) that are of importance for habitats, species or assemblages listed on the directive Annexes. In the UK Ramsar sites are also offered the same level of protection as SPAs and SACs however the qualifying species for the designation may differ; Ramsar sites being designated specifically as important wetland habitats.

Under article 6(3) of the Habitats Directive, where projects stand to have likely significant effect (in accordance with the European Court of Justice ruling of C-127/02 Waddenzee cockle fishing) upon the integrity of conservation objectives (i.e. conservation status of the qualifying species or habitats) within the designated sites then the Competent Authority must undertake an Appropriate Assessment.

Environment Act 2021

The Environment Act, 2021 will mandate the requirement for new development in England to deliver a minimum 10% biodiversity net gain (BNG), as measured by the agreed metric (the current relevant version being the Defra metric 3.0), secured through planning condition as standard (as per schedule 14 of the Act). Approach to the delivery of BNG must follow the mitigation hierarchy, with avoidance of impact and on-site compensation/gains prioritised, ahead of the use of offsite biodiversity unit offsets, or the purchase of biodiversity credits. Whilst the Environment Act 2021 received Royal Assent in November 2021, secondary legislation will be required before the 10% net gain requirement is mandated.

The Act will introduce the condition that no development may begin unless a biodiversity net gain plan has been submitted and approved by the local planning authority (LPA).

The Act will also amend requirements of the NERC Act, 2006, adding the need to not just conserve, but enhance biodiversity through planning projects. Furthermore, it will introduce the need for the LPA to have regard to relevant local nature recovery strategies and relevant species/protected site conservation strategies, when making their decision.

PLANNING POLICY

National

National Planning Policy Framework

The National Planning Policy Framework (NPPF) 2021 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

London Plan 2021

Policy G1 Green Infrastructure

A) London's network of green and open spaces, and green features in the built environment, should be protected and enhanced. Green infrastructure should be planned, designed and managed in an integrated way to achieve multiple benefits.

B) Boroughs should prepare green infrastructure strategies that identify opportunities for cross-borough collaboration, ensure green infrastructure is optimised and consider green infrastructure in an integrated way as part of a network consistent with Part A.

C) Development Plans and area-based strategies should use evidence, including green infrastructure strategies, to:

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.

D) Development proposals should incorporate appropriate elements of green infrastructure that are integrated into London's wider green infrastructure network.

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 (excluding B2 and B8 uses)…….

Policy G6 Biodiversity and access to nature

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

B) Boroughs, in developing Development Plans, should:

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

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

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

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

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

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

1) avoid damaging the significant ecological features of the site

2) minimise the overall spatial impact and mitigate it by improving the quality or management of the rest of the site

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

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

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

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

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

London Borough of Richmond Local Plan 2018-2033

Policy LP12 Green Infrastructure

The policy states:

Green infrastructure is a network of multi-functional green spaces and green features, which provides multiple benefits for people, nature and the economy. To ensure all development proposals protect, and where opportunities arise enhance, green infrastructure, the following will be taken into account when assessing development proposals:

a) *The need to protect the integrity of the green spaces and features that are part of the wider green infrastructure network; improvements and enhancements to the green infrastructure network are supported;*

b) *b) Its contribution to the wider green infrastructure network by delivering landscape enhancement, restoration or re-creation;*

c) *c)Incorporating green infrastructure features, which make a positive contribution to the wider green infrastructure network.*

Policy LP15 Biodiversity

The council will protect and enhance the borough's biodiversity, in particular, but not exclusively, the sites designated for their biodiversity and nature conservation value, including connectivity between habitats. Weighted priority in terms of their importance will be afforded to protected species and priority species and habitats including National Nature Reserves, SSSIs and other SINCs as set out in the Biodiversity Strategy for England, and the London and Richmond upon Thames BAPs. This will be achieved by:

1. Protecting biodiversity in, and adjacent to, the borough's designated sites for biodiversity and nature conservation importance (including buffer zones), as well as other existing habitats and features of biodiversity value;

2. Supporting enhancements to biodiversity;

3. Incorporating and creating new habitats or biodiversity features, including trees, into development sites and into the design of buildings themselves where appropriate; major developments are required to deliver net gain for biodiversity, through incorporation of ecological enhancements, wherever possible;

4. Ensuring new biodiversity features or habitats connect to the wider ecological enhancements wherever possible;

5. Enhancing wildlife corridors for the movement of species, including river corridors, where opportunities arise; and6.Maximising the provision of soft landscaping, including trees, shrubs and other vegetation that support the borough-wide Biodiversity Action Plan.

Policy LP17 Green roofs and walls

Green roofs and/or brown roofs should be incorporated into new major developments with roof plate area of 100sqm or more where technically feasible and subject to considerations of visual impact. The aim should be to use at least 70% of any potential roof plate area as a green/brown roof. The use of green/brown roofs and green walls is encouraged and supported in smaller developments, renovations, conversions and extensions.

Ham & Petersham Neighbourhood Plan

Policy G1 - Open Spaces

The value of Ham and Petersham's green spaces (including Ham Village Green) will be conserved and enhanced by their protection from development and its adverse impacts.

Policy G2 - Light Pollution

Any proposals on or adjacent to green spaces which include external artificial lighting, or which are likely to result in significant increases in artificial light levels affecting wildlife corridors, will be required to address the following:

1. Light should only be installed where it is needed;
2. Timers should be installed to limit periods of use;
3. Light levels should be limited to the minimum required to enhance visibility;
4. Lights should not be directed upwards;
5. Lights should always be shielded;
6. Light spread should be kept to or below the horizontal;
7. Narrow spectrum bulbs should be used;
8. Light sources emitting ultra-violet light must be avoided;
9. Lighting columns should be as short as practicable.

REFERENCES

1 Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London

2 Joint Nature Conservation Committee (2010); Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit. JNCC, Peterborough.

3 CIEEM (2017); Guidelines for Preliminary Ecological Appraisal, 2nd Edition. Chartered Institute of Ecology and Environmental Management, Winchester.

4 BSI (2013); British Standard 42020:2013: Biodiversity — Code of practice for planning and development, BSI Standards Publication

5 MAGIC (2021); Interactive Map. (Partnership project involving six government organisations: Defra (Department for Environment, Food and Rural Affairs); English Heritage; Natural England; Environment Agency; Forestry Commission; Department for Communities and Local Government). Available at: www.magic.gov.uk.

6 Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London

7 English Nature, (2004); Bat Mitigation Guidelines. English Nature.

8 Bat Conservation Trust (BCT) and Institute of Lighting Professional (ILP) Guidance Note (2018). Bats and artificial lighting in the UK. Bats and the built environment series