the ecology partnership

Preliminary Ecological Appraisal and Internal and External Building Survey

Garages at South Worple Way, East Sheen

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LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.

This report provides a snap shot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited or the site supports habitats which are densely vegetated only dominant species maybe recorded.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

1.1 The Ecology Partnership was commissioned by Robinson Escott to undertake a preliminary ecological appraisal and preliminary roost assessments for garages on South Worple Way, East Sheen.

1.2 This report presents the results of The Ecology Partnership's surveys in and around the site, which aims specifically to assess the site's potential to support protected species and protected habitats that may be affected by the proposed development. Potential mitigation measures and recommendations for the site are included within this report.

1.3 Section 2 of this report sets out the methodologies of the Ecology Partnership's surveys. In section 3 the results of the surveys are presented. Discussions and implications for development are found in section 4, including general site enhancements. Conclusions drawn from the report are presented in section 5.

Site Context and Status

1.4 The site is located in the East Sheen area of Richmond Upon Thames, 300m south of the River Thames (TQ 20619 75748). The site is situated on the railway line and surrounded by high density residential housing. There are numerous statutory designated sites and patches of Priority Habitat located within 2km of the site, however the majority of the local landscape is urban hardstanding.

1.5 The aerial photograph below (Figure 1) shows the site and its immediate surroundings. The red line depicts the approximate site boundary and survey area.

Figure 1: Approximate location of the red line boundary

Description of Proposed Development

1.6 The current proposals involve the demolition of the western garages and the construction of five new residential dwellings (Figure 2).

Figure 2: Current proposals for the site (OSP Architecture, September 2019)

Planning Policies

1.7 National and local planning policies may have an effect on the proposed development. The following paragraphs identify relevant planning policies and discuss these in the context of the site.

1.8 Under the Natural Environment and Rural Communities (NERC) Act 2006, *"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"*. In order to comply with this 'Biodiversity Duty', planning decisions must ensure that they adequately consider the potential ecological impacts of a proposed development.

1.9 In compliance with Section 41 of the NERC Act, the Secretary of State has published a list of species and habitats considered to be of principle importance for conserving biodiversity. These were known as BAP habitats and species. The UK BAP lists of priority species and habitats remain an important and valuable reference certainly at county levels. However, the UK Post 2010 Biodiversity Framework (published 2012) has succeeded BAP. It was produced by JNCC and Defra, on behalf of the Four Countries' Biodiversity Group (4CBG), through which the environment departments of all four governments in the UK work together to achieve the 'Aichi Biodiversity Targets' and the aims of the EU biodiversity strategy.

1.10 National policy guidance is provided by National Planning Policy Framework 2018 (NPPF), which sets out the Government's planning policies for England and how they should be applied. Section 15 of the document is entitled 'Conserving and Enhancing the Natural Environment'. The broad guidance (paragraph 170) is as follows:

'The Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);

b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and

most versatile agricultural land, and of trees and woodland;

c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;

d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;

e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and

f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

1.11 Specifically, for habitats and biodiversity in the wider landscape outside of designated wildlife sites, parts of paragraph 175 are relevant:

"When determining planning applications, local planning authorities should apply the following principles…..

(d) …opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity".

1.12 The site falls under the jurisdiction of the London Borough of Richmond Upon Thames. The Local Plan was adopted in July 2018 and the main policies from the report which are relevant to nature conservation include:

Policy LP 15

Biodiversity

A. *"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 the 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, Sites of Special Scientific Interest (SSSI) and Other Sites of*

Nature Importance as set out in the Biodiversity Strategy for England, and the London and Richmond upon Thames Biodiversity Action Plans. 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 and green infrastructure networks and complement surrounding habitats;*
5. *enhancing wildlife corridors for the movement of species, including river corridors, where opportunities arise; and*
6. *maximising the provision of soft landscaping, including trees, shrubs and other vegetation that support the borough-wide Biodiversity Action Plan.*

A. *B. Where development would impact on species or a habitat, especially where identified in the relevant Biodiversity Action Plan at London or local level, or the Biodiversity Strategy for England, the potential harm should:*
    1. *firstly be avoided (the applicant has to demonstrate that there is no alternative site with less harmful impacts),*
    2. *secondly be adequately mitigated; or*
    3. *as a last resort, appropriately compensated for."*

Policy LP 16

Trees, Woodlands and Landscape

A. *The Council will require the protection of existing trees and the provision of new trees, shrubs and other vegetation of landscape significance that complement existing, or create new, high quality green areas, which deliver amenity and biodiversity benefits.*

B. *To ensure development protects, respects, contributes to and enhances trees and landscapes, the Council, when assessing development proposals, will:*

Trees and Woodlands

1. *resist the loss of trees, including aged or veteran trees, unless the tree is dead, dying or dangerous; or the tree is causing significant damage to adjacent structures; or the tree has little or no amenity value; or felling is for reasons of good arboricultural practice; resist development that would result in the loss or deterioration of irreplaceable habitat such as ancient woodland;*
2. *resist development which results in the damage or loss of trees that are considered to be of townscape or amenity value; the Council will require that site design or layout ensures a harmonious relationship between trees and their surroundings and will resist development which will be likely to result in pressure to significantly prune or remove trees;*
3. *require, where practicable, an appropriate replacement for any tree that is felled; a financial contribution to the provision for an off-site tree in line with the monetary value of the existing tree to be felled will be required in line with the 'Capital Asset Value for Amenity Trees' (CAVAT);*
4. *require new trees to be of a suitable species for the location in terms of height and root spread, taking account of space required for trees to mature; the use of native species is encouraged where appropriate;*
5. *require that trees are adequately protected throughout the course of development, in accordance with British Standard 5837 (Trees in relation to design, demolition and construction – Recommendations).*

The Council may serve Tree Preservation Orders or attach planning conditions to protect trees considered to be of value to the townscape and amenity and which are threatened by development.

Policy LP 17

Green roofs and walls

"Green roofs and/or brown roofs should be incorporated into new major developments with roof plate areas 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 onus is on an applicant to provide evidence and justification if a green roof cannot be incorporated. The Council will expect a green wall to be incorporated, where appropriate, if it has been demonstrated that a green / brown roof is not feasible.

The use of green / brown roofs and green walls is encouraged and supported in smaller developments, renovations, conversions and extensions."

1.13 The London Plan was revised in March 2016 and is the overall strategic plan for London. It sets out a fully integrated economic, environmental, transport and social framework for the development of the capital over the next 20-25 years. The most relevant policies within the London Plan are as follows:

Policy 7.19 Biodiversity and Access to Nature

Strategic

A *"The Mayor will work with all relevant partners to ensure a proactive approach to the protection, enhancement, creation, promotion and management of biodiversity in support of the Mayor's Biodiversity Strategy. This means planning for nature from the beginning of the development process and taking opportunities for positive gains for nature through the layout, design and materials of development proposals and appropriate biodiversity action plans.*

B Any proposals promoted or brought forward by the London Plan will not adversely affect the integrity of any European site of nature conservation importance (to include special areas of conservation (SACs), special protection areas (SPAs), Ramsar, proposed and candidate sites) either alone or in combination with other plans and projects. Whilst all development proposals must address this policy, it is of particular importance when considering the following policies within the London Plan: 1.1, 2.1-2.17, 3.1, 3.3, 3.7, 5.4A, 5.14, 5.15, 5.17, 5.20, 6.3, 6.9, 7.14, 7.15, 7.25 – 7.27 and 8.1. Whilst all opportunity and intensification areas must address the policy in general, specific locations requiring consideration are referenced in Annex 1.

Planning decisions

C *Development Proposals should:*

a) wherever possible, make a positive contribution to the protection, enhancement, creation and management of biodiversity

b) prioritise assisting in achieving targets in biodiversity action plans (BAPs), set out in Table 7.3, and/or improving access to nature in areas deficient in accessible wildlife sites

c) not adversely affect the integrity of European sites and be resisted where they have significant adverse impact on European or nationally designated sites or on the population or conservation status of a protected species or a priority species or habitat identified in a UK, London or appropriate regional BAP or borough BAP.

D On Sites of Importance for Nature Conservation development proposals should:

a) give the highest protection to sites with existing or proposed international designations1 (SACs, SPAs, Ramsar sites) and national designations (SSSIs, NNRs) in line with the relevant EU and UK guidance and regulations

b) give strong protection to sites of metropolitan importance for nature conservation (SMIs). These are sites jointly identified by the Mayor and boroughs as having strategic nature conservation importance

c) give sites of borough and local importance for nature conservation the level of protection commensurate with their importance.

E When considering proposals that would affect directly, indirectly or cumulatively a site of recognised nature conservation interest, the following hierarchy will apply: 1 avoid adverse impact to the biodiversity interest 2 minimize impact and seek mitigation 3 only in exceptional cases where the benefits of the proposal clearly outweigh the biodiversity impacts, seek appropriate compensation.

Policy 7.21 Trees and Woodlands

Strategic

A *"Trees and woodlands should be protected, maintained, and enhanced, following the guidance of the London Tree and Woodland Framework (or any successor strategy). In collaboration with the Forestry Commission the Mayor has produced supplementary guidance on Tree Strategies to guide each borough's production of a Tree Strategy covering the audit, protection, planting and management of trees and woodland. This should be linked to a green infrastructure strategy.*

Planning decisions

B *Existing trees of value should be retained and any loss as the result of development should be replaced following the principle of 'right place, right tree'1. Wherever appropriate, the planting of additional trees should be included in new developments, particularly large-canopied species.*

Policy 5.10 Urban Greening

"Strategic

A *The Mayor will promote and support urban greening, such as new planting in the public realm (including streets, squares and plazas) and multifunctional green infrastructure, to contribute to the adaptation to, and reduction of, the effects of climate change.*

B *The Mayor seeks to increase the amount of surface area greened in the Central Activities Zone by at least five per cent by 2030, and a further five per cent by 2051.*

Planning decisions

C *Development proposals should integrate green infrastructure from the beginning of the design process to contribute to urban greening, including the public realm. Elements that can contribute to this include tree planting, green roofs and walls, and soft landscaping. Major development proposals within the Central Activities Zone should demonstrate how green infrastructure has been incorporated.*

Policy 2.18 Green Infrastructure: The multi-functional network of green and open spaces

Strategic

A *"The Mayor will work with all relevant strategic partners to protect, promote, expand and manage the extent and quality of, and access to, London's network of green infrastructure. This multifunctional network will secure benefits including, but not limited to, biodiversity; natural and historic landscapes; culture; building a sense of place; the economy; sport; recreation; local food production; mitigating and adapting to climate change; water management; and the social benefits that promote individual and community health and well-being.*

B *The Mayor will pursue the delivery of green infrastructure by working in partnership with all relevant bodies, including across London's boundaries, as with the Green Arc*

Partnerships and Lee Valley Regional Park Authority. The Mayor has published supplementary guidance on the All London Green Grid to set out the strategic objectives and priorities for green infrastructure across London.

C *In areas of deficiency for regional and metropolitan parks, opportunities for the creation of green infrastructure to help address this deficiency should be identified and their implementation should be supported, such as in the Wandle Valley Regional Park.*

Planning decisions

D *Enhancements to London's green infrastructure should be sought from development and where a proposal falls within a regional or metropolitan park deficiency area (broadly corresponding to the areas identified as "regional park opportunities" on Map 2.8), it should contribute to addressing this need.*

E *Development proposals should:*

a) *incorporate appropriate elements of green infrastructure that are integrated into the wider network*

b) *encourage the linkage of green infrastructure including the Blue Ribbon Network, to the wider public realm to improve accessibility for all and develop new links, utilising green chains, street trees, and other components of urban greening (Policy 5.10).*

1.14 The Mayor's Biodiversity Strategy (2002) *"details the Mayor's vision for protecting and conserving London's natural open spaces"*. This biodiversity strategy contains information about Greater London's ecology, wildlife and its habitat. It also has proposals, commitments and targets for the promotion by the Mayor of biodiversity in London and aims to protect and enhance the species and natural habitats of London.

1.15 The site was surveyed to assess its ecological value and to ensure compliance with national and local plan policies. The report has been produced with reference to current guidelines for preliminary ecological appraisal (CIEEM, 2017) and in accordance with BS 42020:2013 Biodiversity – Code of Practise for Planning and Development.

2.0 Methodology

Desktop Study

2.1 A desktop study search was completed using an internet-based mapping service (www.magic.gov.uk) for statutory designated sites and two internet-based aerial mapping services (maps.google.co.uk) were used to understand the habitats present in and around the survey area and habitat linkages and features (ponds, woodlands etc.) within the wider landscape.

2.2 Biological records were purchased from Greenspace Information for Greater London (Gigli). A search of records in a 1km radius of the site was requested.

Preliminary Ecological Appraisal

2.3 An extended preliminary ecological appraisal was undertaken on the 12th February 2019 by Ecologist Jade Brennan BSc (Hons) MSc GradCIEEM and Graduate Ecologist Joel Cronin BSc (Hons) MSc QCIEEM. The surveyors identified the habitats present, following the standard 'Phase 1 habitat survey' auditing method developed by the Joint Nature Conservancy Council (JNCC). The site was surveyed on foot and the existing habitats and land uses were recorded on an appropriately scaled map (JNCC 2010). In addition, the dominant plant species in each habitat were recorded. The potential for the site to support protected species was also assessed.

2.4 The surveyors identified the habitats present, following the standard 'Phase 1 habitat survey' auditing method developed by the Joint Nature Conservancy Council (JNCC). The site was surveyed on foot and the existing habitats and land uses were recorded on an appropriately scaled map (JNCC 2010). In addition, the dominant plant species in each habitat were recorded. The potential for the site to support protected species was also assessed.

Building Assessment for Bats

2.5 Building assessments were undertaken on the same day as the preliminary ecological appraisal survey. The surveyors undertook an internal and external examination of the buildings including all accessible roof voids. Buildings which are considered to have a higher potential to support roosting bats would include the following:

- Agricultural buildings (e.g. farmhouses, barns and out buildings) of traditional brick or stone construction and/or with exposed beams;
- Buildings with weather boarding and/or hanging tiles that are within 200m of woodland and/or water;
- Pre-1960s detached buildings and structures within 200m of woodland and/or water;
- Pre-1914 buildings within 400m of woodland and/or water;
- Pre-1914 buildings with gable ends or slate roofs regardless of location;
- Buildings which are located within or immediately adjacent to woodland and/or immediately adjacent to water;
- Dutch barns or livestock buildings with a single skin roof and board and gap or Yorkshire boarding if, following a preliminary roost assessment the site appear to be particularly suited to bats.

2.6 The surveyor assessed the buildings visually and searched for evidence such as:

- Staining beneath or around a hole caused by natural oils in bat fur.
- Bat droppings beneath a hole, roost or resting area.
- Bat droppings and/or insect remains beneath a feeding area.
- Audible squeaking from within a hole.
- Insects (especially flies) around a hole.
- Dead bats.

Tree Assessment for Bats

2.7 Roosts of bats in trees may be identified from the following field signs:

- Black stains beneath cracks, splits and other features where bat dropping have fallen;
- Dark marks at entrance points where bats have rubbed against the wood and left natural body oils;
- Feeding remains beneath roosts, such as insect wings;

- Chattering of bats;
- Bat droppings under access points;
- Scratch marks around a feature (cavity or split) caused by bat claws;
- Urine stains below the entrance or end of split;
- Large roosts or regularly used sites may produce an odour;
- Flies around the entrance, attracted by the smell of guano.

2.8 The trees on site were assessed for their potential to support roosting bats. The trees were assessed visually for evidence of bats as well as for features that increase the likelihood such as the following:

- Woodpecker holes, natural cracks and rot holes in trunks and branches;
- Frost cracks;
- Trunk and branch splits;
- Hollow sections of trunk and branches;
- Loose bark;
- Cavities beneath old root buttresses and coppice stools;
- Dense epicormic growth;
- Dense ivy cover.

2.9 Trees scheduled for arboricultural work should also be assessed, and may be categorised (Table 1) to relate the value of their features to recommended actions. This approach allows trees to be graded according to their potential to support bat roosts. Trees may be assessed as having the potential to support bats (from an individual to a larger roost) even if no bats have been found.

Table 1: Protocol for visual inspection of trees to assess their value to bats (Bat Conservation Trust 2016)

Suitability	Roosting habitat description
Negligible	Negligible habitat features on-site likely to be used by roosting bats.
Low	A tree of sufficient size and age to contain potential roosting features but with none seen from the ground or features seen with only very limited roosting potential.

Moderate	A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
High	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Badger Survey

2.10 A badger survey was undertaken at the site to assess if badgers were using the area and if any setts were located on the site and 30m away from the site that might constrain development. The evaluation of badger activity was based on methodology developed for the National Survey of Badgers (Creswell *et al.* 1990) and includes searching for badger field signs such as setts, badger pathways, tracks (pawprints), dung piles with latrines, badger hairs and feeding signs such as snuffle holes.

Other Protected Species

2.11 The site was also inspected for indications of the presence of other protected species, as follows:

- Relevant habitat for dormice such as dense deciduous woodland, coppice and thick shrubbery
- Presence of tussocky grassland and scrub areas which would be suitable for reptile species
- Ponds and associated habitat suitable to support great crested newts
- The presence of ditches for water voles
- The presence of fresh water stream/rivers for otters
- Suitable nesting places for birds
- Other potential protected species

Limitations

2.12 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation

and prediction of the natural environment. The site was visited over the period of one site visit, as such seasonal variations cannot be observed and potentially only a selection of all species that potentially occur within the site have been recorded. Therefore, the survey provides a general assessment of potential nature conservation value of the site and does not include a definitive plant species list.

2.13 The protected species assessment provides a preliminary view of the likelihood of protected species occurring on-site, based on the suitability of the habitat and any direct evidence on site. It should not be taken as providing a full and definitive survey of any protected species group. The assessment is only valid for the time when the survey was carried out. Additional surveys may be recommended if, on the basis of this assessment it is considered reasonably likely that protected species may be present.

2.14 The area of vegetation to the north of the buildings on site was not accessible at the time of the survey. As such only a small area could be viewed during the survey period.

3.0 Results

Desktop Study

3.1 The site itself is not statutory designated, nor does it lie adjacent to any such designated sites. There are several designated sites within 2km and these are listed below:

- Dukes Hollow Local Nature Reserve (LNR) *c.* 812m north-east;
- Barnes Common LNR 1.13km east;
- Richmond Park Special Area of Conservation (SAC), National Nature Reserve (NNR) and Site of Special Scientific Interest (SSSI) *c.* 1.19km south;
- Leg of Mutton Reservoir LNR *c.* 1.6km north-east.

3.2 Within 10km, there are several internationally designated sites. These include the Richmond Park SAC *c.* 1.19km south, as well as Wimbledon Common *c.* 3.2km south-east and the South West London Waterbodies Special Protection Area (SPA) *c.* 9.7km south-west.

3.3 In terms of non-statutory designations, there are nine within a 1km radius of the site, and these are listed below:

- Duke's Hollow Site of Metropolitan Importance *c.* 270m north;
- River Thames and tidal tributaries Site of Metropolitan Importance *c.* 270m north;
- Old Mortlake Burial Grounds Site of Local Importance *c.* 325m north-east;
- North Sheen and Mortlake Cemeteries Site of Local Importance *c.* 630m north-west;
- Beverley Brook in Wandsworth Borough Grade I site *c.* 775m south-east;
- Hounslow Loop Railsides Borough Grade II site *c.* 885m north-east;
- Richmond Park to the River Thames Borough Grade II site *c.* 780m south-east;
- Bank of England Sports Club Grounds Borough Grade II site *c.* 780m south-east;
- Richmond Park and associated areas Site of Metropolitan Importance *c.* 895m south-east.

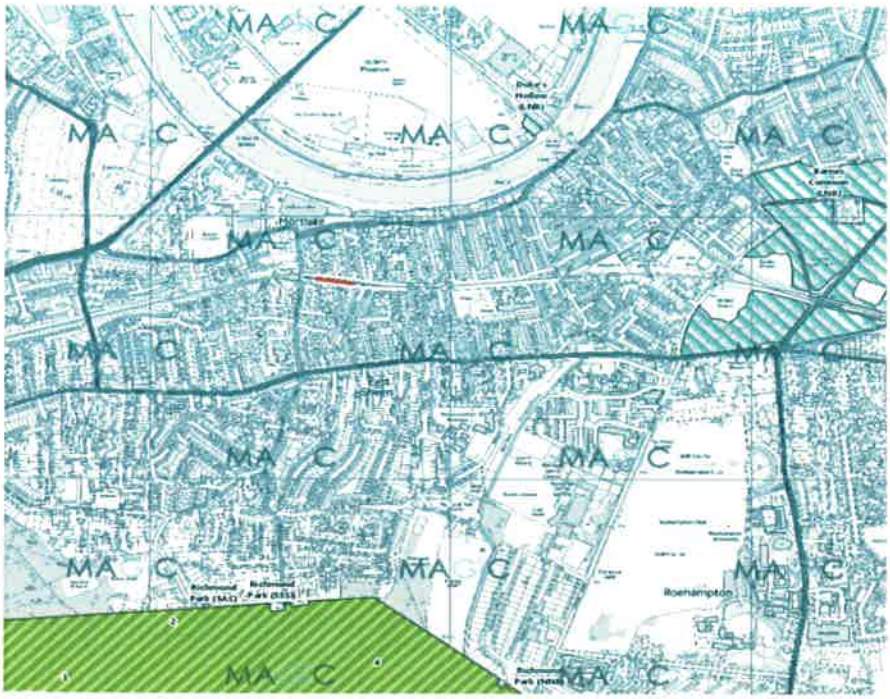

Figure 3: Location of the protected sites within the local landscape around the Site

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3.4 Asides from the statutory designated sites, there are small areas of Priority Habitat in the local area within the local urban landscape (Figure 3). The closest area of BAP deciduous woodland is 720m west at the North Sheen Cemetery. There are BAP Intertidal substrate foreshore gravel and mudflats within the banks of the River Banks 440m north.

3.5 A 1km data search was requested from Greenspace Information for Greater London (GiGL). The records closest to site and recorded within the last 10 years have been included (Table 2). Further information from the data request is included in the appendix.

Table 2: Notable species records within 1km of the site in the last 10 years

Species	Status	Record distance and direction	Record year
Slow worms *Anguis fragilis*	Conservation of Habitats and Species Regulations (2010) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5	Approximately *c.* 789m East	2016
West European Hedgehog *Erinaceus europaeus*	NERC Act Section 41; UKBAP; BAP Priority London; Local Species of Conservation Concern	Approximately *c.* 103m South	2016
Common Pipistrelle *Pipistrellus pipistrellus*	Conservation of Habitats and Species Regulations (2010) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act (1981 as amended) Schedule 5; BAP Priority London; Local Species of Conservation Concern	Approximately *c.* 521m North-east	2016
Soprano Pipistrelle *Pipistrellus pygmaeus*	Conservation of Habitats and Species Regulations (2010) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act 1981 (as amended) Schedule 5; BAP Priority London; Local Species of Conservation Concern	Approximately *c.* 121m North-west	2016
Serotine *Eptesicus serotinus*	Conservation of Habitats and Species Regulations (2010) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act 1981 (as amended) Schedule 5; BAP Priority London; Local Species of Conservation Concern	Approximately *c.* 1km North-east	2013

Noctule *Nyctalus noctula*	Conservation of Habitats and Species Regulations (2010) Schedule 2; Habitat and Species Directive (1992) Annex 4; Wildlife and Countryside Act 1981 (as amended) Schedule 5; BAP Priority London; Local Species of Conservation Concern	Approximately *c.* 789m East	2016

Phase 1 Habitat Survey

3.6 The site comprised of a row of terraced garages with hard-standing along the southern boundary and scattered trees and scrub along the northern site boundary. There were no water-bodies within 250m of the site boundary. These habitats are all discussed further in the relevant sections of this report.

Scattered trees and scrub

3.7 Semi-mature scattered trees and scrub were present along the northern site boundary adjacent to the railway line. This area was not accessible to fully surveyed but species that could be seen included buddleja (*Buddleja sp.*), common ivy (*Hedera helix*) and bramble (*Rubus fruticosus*).

Buildings

3.8 The terraced garages on site were flat roofed and were of concrete construction. The buildings are discussed further with relevance to roosting bats in section 3.10.

Hardstanding

3.9 The front of the garages along the southern site boundary comprised of hard-standing.

Protected Species

Badgers

3.10 No evidence of badgers, such as setts, latrines or snuffle holes, was identified on site. However, the section of vegetation along the northern site boundary could not be accessed, therefore a comprehensive search of this area for evidence of badger activity was not possible.

Bats

3.11 Five terraced garage buildings within the red line boundary were assessed for their suitability to provide suitable roosting habitat for bats and their locations are shown in Figure 4 below.

Figure 4: Location of the buildings within the red line boundary (in orange).

3.12 A total of 44 single storey flat-roofed terraced garage units were present on site, of which 5 were accessible. These comprised of well-sealed concrete panels and concrete beams which supported corrugated asbestos sheets. Concrete beams along the southern aspect were exposed and several were in poor condition but the gaps present were shallow in nature and did not appear to lead anywhere. A single garage unit had a dislodged wood fascia board along the southern aspect which could provide an access point into the interior. However, the interior of this and the other units lacked any features suitable for roosting bats. Additionally, due to the nature of the structural materials, there would be fluctuations in temperature conditions, providing unsuitable conditions for roosting bats.

Overall, there was no evidence of bat usage during the survey such as bats themselves or evidence such as droppings or staining, therefore none of these units are considered to potential for roosting bats.

Tree assessment for roosting bats

3.13 There were some trees located to the rear of the garage blocks adjacent to the railway line. These were not accessible at the time of the survey, and these should be fully assessed by an Ecologist if they are to be subject to removal. Access may only be possible once the garage blocks have been removed.

Foraging and commuting habitats for bats

3.14 The site was dominated by habitats and features with negligible potential for foraging and commuting bats. Treelines and scrub along the northern site boundary could provide some low-potential foraging habitats for common bat species such as common pipistrelles. This feature and adjacent train-line could also provide some connectivity habitats in the local area including Barnes Common.

3.15 The GIGL biodiversity report highlights a small number of more common bat species that have been recorded recently within the local area of the site, including common pipistrelle, soprano pipistrelle, serotine and noctule.

Great Crested Newts

3.16 No water-bodies were identified within 250m of the red line boundary (Figure 5). Scattered trees and scrub on site could potentially provide foraging and commuting opportunities for GCN although these features could not be fully assessed at the time of the survey. Additionally, this feature was bound by a railway line, dense residential housing and roads which may all act as barriers to dispersal and isolate the site from suitable habitats in the wider landscape. Due to the lack of suitable water-bodies within 250m of the site and the poor connectivity of the site to the surroundings, it is considered highly unlikely that GCN would be present on site.

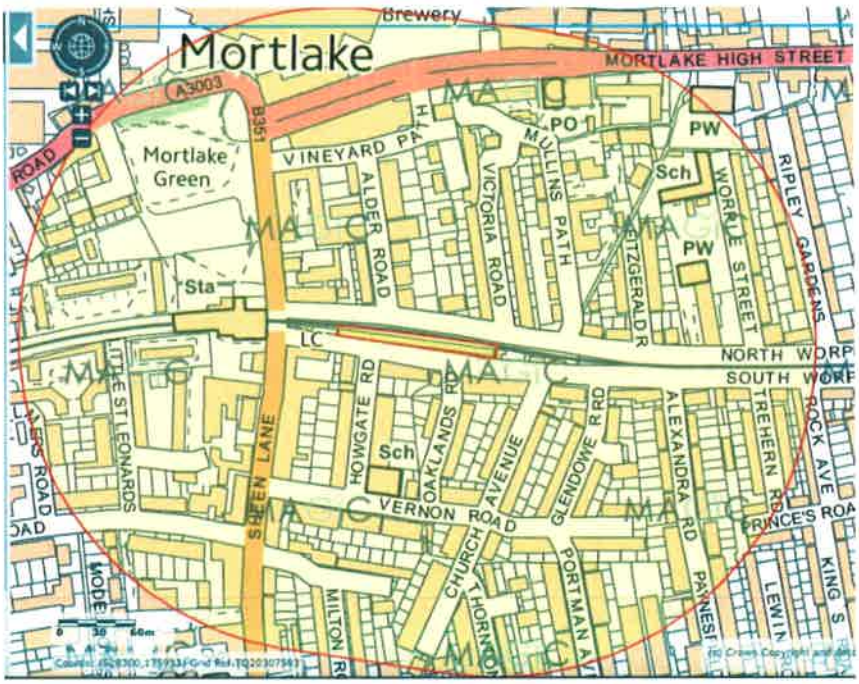

Figure 5: The 250m buffer zone around the site showing the lack of water-bodies within the local area

Reptiles

3.17 The majority of the site was dominated by habitats with negligible potential for reptiles. Scrub along the northern site boundary could potentially provide a low number of opportunities for reptiles although its suitability could not be fully assessed at the time of the survey. Additionally, this feature was separated from other suitable habitats in the local landscape by a railway line and dense residential housing. Due to this and the lack of recent biological records for reptiles, it is considered unlikely that reptiles would be present on site.

Other species

3.18 The scattered trees and scrub on site have the potential to support nesting birds.

3.19 No habitat considered suitable for otters, dormice or water voles was identified on site.

4.0 Discussion

Site

4.1 The site itself does not fall within or adjacent to any national or international statutory designations, but several are present within 2km of the site boundary. The closest statutory designations are the Dukes Hollow LNR *c.* 812m north-east and the Barnes Common LNR *c.* 1.13km east. Richmond Park SAC SSSI also lies *c.* 1.19km south whilst the Leg of Mutton Reservoir LNR lies *c.* 1.6km north-east from the site.

4.2 The proposals still lie outside of the SSSI impact zones for all of these sites, consequently it is not considered that a consultation with the Local Planning Authority would be required. The site is also separated from these designated sites by roads and dense residential housing, with limited direct ecological connections to the site. Therefore, any development within the red line boundary would not result in any significant adverse direct or indirect impacts nor any loss, fragmentation or isolation of any habitats on these designated sites. Consequently, the proposals would be completed in accordance with **London Borough of Richmond upon Thames's - Policy LP 15: Biodiversity,** in which the council must protect *"biodiversity in, and adjacent to, the borough's designated sites for biodiversity and nature conservation importance."*

4.3 Nine non-statutory designated sites were also located within 1km of the redline boundary. These are sufficiently distanced from the site that any direct or indirect impacts would be minimal. Furthermore, the redevelopment of the site will not alter landscape connectivity to such sites.

4.4 It is considered that the redevelopment of the site will not impact upon the ecological functionality of the landscape. However, in line with NPPF and local plan policy requirements it is recommended that the proposals must retain or create new ecological features on site, and seek to protect and enhance the sites biodiversity as a whole.

Habitats

4.5 The habitats on site are common and widespread throughout the local area and the UK as a whole, with the site being dominated by hard-standing and a building with limited ecological value.

4.6 Scattered trees and scrub along the northern site boundary retain some ecological value by providing opportunities for protected species, namely foraging and commuting bats and nesting birds. However, a full assessment of the ecological value of these features could not be conducted at the time of the survey. It is recommended that these features are retained where possible but if they are to be removed, then it is recommended that an update walkover of these habitats is conducted to ensure the ecological value of these features has been fully identified. This would ensure that any ecological impacts are offset through the implementation of the necessary mitigation, compensation and enhancement measures.

4.7 Under Policy **LP 16: Trees, Woodlands and Landscape**, the council also requires proposals to protect existing trees where possible. If this is not possible, the council require proposals to provide alternative new trees, shrubs and other vegetation of landscape significance to *"complement existing, or create new, high quality green areas"* under this policy. Recommendations for enhancing the site post development have been made in line with this policy.

Other habitats

4.8 The site does not support any Habitats of Principle Importance such as ancient woodland or priority habitats. These are present in the local landscape but due to their separation from the proposals by dense residential housing and the nature of the proposals, it is not considered that these will be impacted, directly or indirectly, by the proposals.

Protected Species

Badgers

4.9 No evidence of badgers, such as setts or latrines, was observed anywhere on site, although these features could be present within the area of inaccessible vegetation to the north of the site. These features could also provide a low number of foraging opportunities for badgers, but the likelihood of this is reduced by the poor connectivity of this habitat to the surrounding landscape.

4.10 It is recommended that a badger update survey is undertaken within the unassessed section vegetation to the north of the site prior to any works on site.

Bat assessments

4.11 The buildings on site were considered to retain 'negligible' potential for supporting roosting bats due to the lack of suitable features and conditions for roosting bats, and the absence of evidence indicative of usage by bats within such as droppings or potential feeding remains. Consequently, further surveys of these are not considered necessary.

4.12 None of the trees on site were accessible to be assessed for their potential to support roosting bats and should these need to be removed, these should be assessed by an Ecologist prior to removal.

4.13 The habitats on site are largely considered to sub-optimal for foraging and commuting bats. Scattered trees and scrub along the northern site boundary could provide low-quality commuting habitats for bats due to the connectivity of the adjacent railway line. These habitats are likely to be removed under current proposals. Given the small-size of these habitats and the location of the site, it is not considered that the development would significantly impact upon the local ecological network used by foraging and commuting bats. In order to ensure this, it is recommended that new native hedgerows and/ or treelines are planted along the northern site boundary to provide new commuting and foraging opportunities for bats. A sensitive lighting scheme should also be used and enhancements for bats are provided, then favourable conservation status of bat species

within the local area will be maintained post-development. Certainly, development which considers bats within the master planning, by retaining or creating important landscape features and providing enhancements for bats, would reduce impacts to bat species to a level which would not be considered significant. Consequently, as long as the below recommendations are followed, then it is considered that no further bat activity surveys are required.

4.14 Native hedgerows and/ or treelines should be placed along the northern site boundary should the existing vegetation be removed. Native species that should be used are outlined in Enhancement section (see point 4.24 for details).

4.15 Any proposed lighting scheme as part of any development will have to take into account bats in the surrounding area as well as the site. All bat species are nocturnal, resting in dark conditions in the day and emerging at night to feed. Bats are known to be affected by light levels, which can affect both their roosting and foraging behaviour. This needs to be taken into account with a sympathetic lighting scheme. Recommendations include:

- Installing lighting only if there is a significant need;
- Using directional Light Emitting Diodes (LEDs) instead of mercury or metal halide lamps;
- Directing light to where it is needed and avoiding light spillage;
- Using baffled lighting where light is directed towards the ground;
- If lighting is required near linear features such as treelines or rivers, lighting should be timed or on only when necessary to minimise impacts on foraging and commuting bats.

Great Crested Newts

4.16 The total area within the redline boundary is approximately c. 0.1ha. This area is dominated by hard-standing and buildings which are sub-optimal for GCN. Scattered trees and scrub along the northern site boundary is likely to provide a low number of

opportunities for great crested newts in their terrestrial phase but full assessment of its suitability was not able to be conducted at the time of the survey.

4.17 Despite the terrestrial habitats on site being likely to have some suitability for GCN, the site overall has limited potential to support GCN as these individuals also require waterbodies during their breeding phase. There were no water-bodies within 250m of the site and this reduces the likelihood that GCN would be able to utilise these habitats in the long term. The site also had poor connectivity to the surrounding landscape due to dense residential housing and roads, which further reduces the likelihood of GCN being present on site. Given the sub-optimal condition of the site for GCN and the lack of water-bodies within 250m of the site, it is considered highly unlikely that an offence would be caused under the Natural England risk assessment (Figure 5). Therefore, no further GCN surveys are recommended.

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are	Notional offence probabilit
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding	No effect	0
Land 100-250m from any breeding	No effect	0
Land >250m from any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.005
Individual great crested newts	No effect	0
	Maximum:	0.005
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

"Green: offence highly unlikely" indicates that the development activities are of such a type, scale and location that it is highly unlikely any offence would be committed should the development proceed. Therefore, no licence would be required. However, bearing in mind that this is a generic assessment, you should carefully examine your specific plans to ensure this is a sound conclusion, and take precautions (see Non-licensed avoidance measures tool) to avoid offences if appropriate. It is likely that any residual offences would have negligible impact on conservation status, and enforcement of such breaches is unlikely to be in the public interest."

Figure 5: Green offence highly unlikely

Reptiles

4.18 The majority of the habitats on site were considered sub-optimal for foraging reptiles. Hardstanding and buildings do not support significant numbers of invertebrates and provide little in the way of cover. Vegetation to the north of the site was not able to be fully assessed on the day of the survey. However, considering the highly-fragmented nature of the landscape and the lack of connectivity to suitable off site habitats it is considered unlikely that reptiles would be present along this edge. However, once the garages have been removed, an update assessment of this section of the site would be recommended.

4.19 Post development, log piles can be created on the edges of the site to provide refuge for a range of species such as reptiles, amphibians, small mammals and invertebrates. Log piles examples of these are shown below (see Figure 6).

Figure 6: Design of log piles. At least one of these should be incorporated into the site.

Other species

4.20 Birds are likely to use the trees and scrub along the site boundaries for foraging and breeding. It is recommended that these features are retained where possible or replaced. Any scrub or tree removal should be implemented outside the breeding bird season (Match-September) or immediately after a nesting bird check by a suitably qualified ecologist. If active nests are identified, works in the vicinity of the nest must cease until the birds have fledged the nest.

4.21 None of the habitats present on site were considered suitable for dormice, water voles or otters and no further surveys are required.

General Site Enhancements

4.22 A number of enhancements can be made to the final development to help reduce potential ecological impacts. The development will also have to give due regard to **Policy LP 15: Biodiversity** in which proposals should enhance biodiversity and wildlife corridors. Under **Policy LP 16: Trees, Woodlands and Landscape**, the council also requires proposals to provide *"new trees, shrubs and other vegetation of landscape significance that*

complement existing, or create new, high quality green areas, which deliver amenity and biodiversity benefits."

4.23 Planting around any available wall space on the new building could also provide excellent habitat opportunities on the vertical plane, particularly invertebrates, which in turn provide a food source for other species such as birds or bats. A combination of species could include clematis (*Clematis montana*), old man's beard (*Clematis vitalba*), jasmine (*Jasminum officinale*), honeysuckle (*Lonicera perichlymenum*), field rose (*Rosa arvensis*) and climbing hydrangea (*Hydrangea petiolaris*).

4.24 The planting of new trees is always recommended to provide suitable foraging habitat and shelter for a range of species. Suitable native species of value to wildlife include hazel (*Corylus avellana*), beech (*Fagus sylvatica*), elder (*Sambucus nigra*), hawthorn (*Crataegus monogyna*), wild cherry (*Prunus avium*), apple (*Malus sp.*), yew (*Taxus baccata*), spindle (*Eunomyas europaea*), and holly (*Ilex aquifolium*). These should be planted around the site boundaries to provide new linear features for bats and other commuting species. Shrubs should also be planted within shared open areas and can include native species such as dogwood (*Cornus sanguinea*), guelder rose (*Virburnum opulus*), wild privet (*Ligustrum vulgare*) and box (*Buxus sempervirens*).

4.25 Alternatively, the site boundaries could be enhanced through the planting of new hedgerows. These can help to provide a layering of different habitats that can be utilised by a wide variety of species. Species that can be planted include blackthorn (*Prunus spinose*), hawthorn (*Crataegus monogyna*), hazel (*Corylus avellana*), holly (*Ilex aquifolium*), elder (*Sambucus nigra*), alder (*Frangula alnus*), guelder rose (*Viburnum opulus*), dog rose (*Rosa canina*) and dogwood (*Cornus sanguinea*).

4.26 The use of raised beds and planters could be incorporated into the design of the scheme where green space on site is limited. Native nectar-rich species should be planted to benefit invertebrates which are in turn food sources for other species including birds and bats. Species can include chamomile (*Anthemis nobilis*), honeysuckle (*Lonicera periclymenum*), jasmine (*Jasminum officinale*), lavender (*Lavendula vera*), mint (*Mentha piperita*), rosemary

(*Rosmarinus officinalis*), sage (*Salvua officinalis*), sweet pea (*Lathyrus odoratus*) and thyme (*Thymus vulgaris*).

5.0 Ecological Impact Assessment

5.1 This section of the report forms an EcIA (Ecological Impact Assessment) and is designed to quantify and evaluate the potential impacts of the development on habitats and species present on site, or within the local area.

Methodology

5.2 The approach to this assessment accords with guidance presented within the CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM 2018).

5.3 The zone of influence of the development is defined as:

- The project red line, for effects on habitats and species;
- Adjacent habitat, considered by species, for mobile species with territories or foraging ranges that may overlap the site.

5.4 The types of features considered in the assessment of effects, to meet legislative and policy requirements, are:

- Designated sites (European, national and local);
- Protected species;
- Habitats and species of principal importance (Section 41 list);
- Hedgerows and woodland, where not of principal importance; and
- Habitats, where not of principal importance, that may function as wildlife corridors or stepping stones.

5.5 Impact assessment is required for each feature determined as important and not for other features. CIEEM 20018 advises that each impact assessment should consider if possible the different stages of a development (construction, operation and decommissioning) and that it should be characterised by the following:

- Positive or negative - whether the impact leads to an adverse, beneficial or neutral effect;

- Extent – the spatial area over which the impact occurs;
- Magnitude – change in for example the amount of habitat or the size of population;
- Duration – both in relation to the life cycle of the ecological feature and of the life of the project;
- Frequency and timing – for example the number of disturbance incidents to birds and their timing in relation to the breeding cycle; and
- Reversibility – if and at what timescale recovery is possible.

5.6 In essence, an EcIA assesses the activities associated with a proposed scheme that are likely to generate changes, within identified zone of influences, on identified ecological features and receptors. The proposals are subsequently reviewed, and iteration undertaken to include enhancements and mitigation to reduce negative impacts.

Assessment

5.7 It is considered that any direct or indirect ecological impacts of any proposals on site on habitats and ecosystems within the surroundings would be restricted to a site level only. The site has previously been developed and is surrounded by roads and dense residential houses. The habitats on site are also common and widespread with limited ecological value. Ecological impacts from the loss of boundary vegetation can be minimised through the implementation of mitigation, compensation and enhancement measures which include a sensitive lighting scheme. In order to minimise any potentially negative impacts on local wildlife and to improve the ecological value of the site, recommendations have been made to plant a new native species boundary feature along the northern site boundary.

5.8 There are no direct ecological connections from the designated sites to the survey area, as such the development of the site would not result in the alteration of ecological pathways or corridors. The site is also not located on or adjacent to any of these designated sites, therefore it will not result in the loss, fragmentation or modification of the habitats present.

5.9 The proposals are also to occur on a similar footprint to the existing buildings and hardstanding on site which retained only limited ecological value. Recommendations have been made to retain the habitats on site where possible, particularly the boundary

treeline and scrub. Therefore, as along these are retained and/ or replanted with native species planting, then the proposals would result in an increase of ecologically more valuable habitats at site level, leading to a site level enhancement. Consequently, it is considered that the proposed development on site would not result in the isolation, truncation or fragmentation of habitats or ecosystems of ecological importance.

5.10 The site has also been assessed for its potential to support protected species and wildlife. The treelines and scrub along the northern site boundary could support foraging and commuting bats, and nesting birds. These features could also support badgers and reptiles, however their suitability was not able to be fully assessed on the day of the survey. Recommendations have been made to conduct an update walkover of these habitats if they are to be removed for the development. The necessary precautionary measures, mitigation and compensation can then be implemented to limit and offset any negative ecological impacts. Buildings on site were considered to have 'negligible' potential for roosting bats, consequently no further surveys were required. However, a sensitive lighting scheme and enhancements have been recommended to minimise any indirect impacts on bats and to improve the site for bats post-development.

6.0 Conclusions

6.1 The site does not lie within or adjacent to any statutory or non-statutory designated sites. Due to the location of the proposals and its separation from these sites, it is considered unlikely that the development will cause adverse effects to these areas or the surrounding landscape.

6.2 The majority of the habitats on site are common and widespread throughout the local area and the UK as a whole. The site comprised mainly of buildings and hardstanding with limited ecological value. The treelines and scrub are likely to have ecological value for a low number of protected species, and full assessment of their suitability should be conducted prior to removal.

6.3 The buildings on site were considered to be 'negligible' suitability for roosting bats due to the composition and nature of the structural materials.

6.4 None of the trees were accessible to be assessed for their potential suitability for roosting bats. Recommendations have been made for further surveys of the trees on site prior to any being removed.

6.5 The boundary tree line and scrub are likely to provide some foraging and commuting opportunities for bats. Due to the small size of these habitats and their separation from the broader landscape, it is not considered that further activity surveys are currently recommended as long as new boundary features are created to replace these features if they are removed.

6.6 The habitats on site and in the local surroundings are considered to be sub-optimal for GCN. There are also no water-bodies within 250m of the site and are no recent biological records for GCN within 1km of the site. Due to the sub-optimal condition of the site and local surroundings for GCN, no further surveys are recommended.

6.7 The habitats on site are considered to be largely sub-optimal for reptiles but a full assessment of vegetation along the northern boundary was not possible at the time of the survey. However, once the garages have been removed, an update assessment of this section of the site would be recommended.

6.8 Birds are likely to forage and nest within the boundary tree lines and scrub on site. Should these need to be removed, this should occur outside of the bird nesting season (March – September). If this is not possible, a qualified ecologist should re-check any potential nesting habitats immediately prior to their removal.

6.9 The site does not contain habitats considered suitable for supporting barn owls, dormice, water voles or otters, therefore no further surveys are recommended.

6.10 Recommendations for enhancements have been made within this report, aimed at improving the ecological value of the site post development.

7.0 References

Bat Conservation Trust., (2016). *Bat Surveys – Good Practice Guidelines*. Bat Conservation Trust, London.

Cresswell, W & Whitworth, R., (2004). *An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt Triturus cristatus*. Peterborough, UK

English Nature., (2006). *The Dormouse Conservation Handbook, 2nd Edition*. English Nature, Peterborough.

Joint Nature Conservation Committee., (2010). *Handbook for Phase 1 habitat survey – a technique for environmental audit*. JNCC, Peterborough.

Langton, T.E.S., Beckett, C.L. & Foster, J.P., (2001). *Great Crested Newt Conservation Handbook*. Froglife, Halesworth.

Mitchell-Jones, A.J., (2004). *Bat Mitigation Guidelines*. English Nature, Peterborough.

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Internet resources:

Google Maps: www.google.co.uk/maps

Magic Interactive Map: www.magic.gov.uk

Appendix 1: Phase 1 Habitat Map

Key

- Scattered trees and scrub
- Hard-standing
- Building
- Site boundary

Site: South Worple Garages
Client: Robinson Escott Planning LLP
Survey Date: 12/02/2019
Surveyors: J Brennan, J. Cronin
Figure Title: Habitat Map

the ecology partnership

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Appendix 2: Photos

Photograph 1: An overview of the hard-standing and garage units on site.	
Photograph 2: One the degraded concrete beams on a garage unit.	

Photograph 3: The well-sealed concrete panels and concrete beams within one of the garage units.	
Photograph 4: A section of vegetation along northern site boundary seen from the southern site boundary.	
Photograph 5: A dislodged wood fascia board along the southern aspect of one of the garage units.	

Appendix 3: Biological Records

eCountability
Managing your biodiversity risks and opportunities

In Partnership with

GiGL Greenspace Information for Greater London CIC
the capital's environmental records centre

THIS SUMMARY PAGE MAY BE PUBLISHED
THE FULL REPORT AND MAPS MAY NOT BE PUBLISHED IN THE PUBLIC DOMAIN

Ecological Data Search 12627 - Summary Page

A 1000m ecological data search was carried out for site Worple Way on behalf of The Ecology Partnership on 31 Jan 2019.

The following datasets were consulted for this report:

- Statutory sites ✓
- Non-statutory sites ✓
- Protected species ✓
- London invasive species ✓
- Habitats ✓
- Open space ✓

Results

Statutory sites	No statutory sites and 1 LNR
Non-statutory sites	9 SINCs
Areas of Deficiency	Present within search area
Geological sites	None present within search area
Species	
Protected and notable species	1210 species records
London invasive species	108 species records
Habitats	
BAP habitat suitability	Present within search area
Open space	Present within search area

The report is compiled using data held by GiGL at the time of the request. Note that GiGL does not currently hold comprehensive species data for all areas. Even where data is held, a lack of records for a species in a defined geographical area does not necessarily mean that the species does not occur there.

Permission

This data search report is valid until 31/01/2020 for the site named above.

Prepared by Dave Ritchie
31 Jan 2019

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Date: 09/10/2019