ORIONE CARE, LOWER TEDDINGTON ROAD, HAMPTON WICK

PRELIMINARY ECOLOGICAL APPRAISAL

A Report to: PRC Architecture and Planning

Report No: RT-MME-128041-01

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REPORT VERIFICATION AND DECLARATION OF COMPLIANCE

This study has been undertaken in accordance with British Standard 42020:2013 “Biodiversity, Code of practice for planning and development”.

Report Version	Date	Completed by:	Checked by:	Approved by:
Final	25/06/2018	Will Rees MSc Grad CIEEM (Ecological Consultant) and Anna Burnham (Ecological Project Officer)	Paul Roebuck MCIEEM MSc (Principal Ecological Consultant)	Dr Philip Fermor CEnv MCIEEM (Managing Director)
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The information which we have prepared is true, and has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management’s Code of Professional Conduct. We confirm that the opinions expressed are our true and professional bona fide opinions.

DISCLAIMER

The contents of this report are the responsibility of Middlemarch Environmental Ltd. It should be noted that, whilst every effort is made to meet the client’s brief, no site investigation can ensure complete assessment or prediction of the natural environment.

Middlemarch Environmental Ltd accepts no responsibility or liability for any use that is made of this document other than by the client for the purposes for which it was originally commissioned and prepared.

VALIDITY OF DATA

The findings of this study are valid for a period of 24 months from the date of survey. If works have not commenced by this date, an updated site visit should be carried out by a suitably qualified ecologist to assess any changes in the habitats present on site, and to inform a review of the conclusions and recommendations made.

NON-TECHNICAL SUMMARY

Middlemarch Environmental Ltd was commissioned by PRC Architecture and Planning to carry out a Preliminary Ecological Appraisal at the site of the proposed development and reconfiguration of the buildings at Orione House, Station Road as well as 13 and 19-29 Lower Teddington Road, Hampton Wick. To fulfil this brief an ecological desk study and a walkover survey (in accordance with Phase 1 Habitat Survey methodology) were undertaken.

The desk study exercise identified two European statutory sites within 5 km of the survey area, two UK statutory sites within 2 km, no ancient woodlands within 2 km and three non-statutory sites within 1 km. The site is not located within 10 km of a statutory site designated for bats. The desk study also provided records of protected and notable species including bats, terrestrial and semi-aquatic mammals, amphibians, reptiles, birds, invertebrates and plants.

The walkover survey was undertaken on 24th May 2018 by Will Rees, Ecological Consultant, with a further survey 24th July by Paul Roebuck, Principal Consultant and Will Rees, Ecological Consultant. At the time of the survey, the survey area was fronted by five Victorian/Georgian age villas with associated front gardens. Residential gardens were located to the rear of the villas, characterised by well managed shrub beds, amenity grassland and scattered mature trees and. Orione House, a four-storey care home occupied the western portion of the site, with associated carpark and landscaping.

The key ecological features on site in relation to the works proposed are the presence of mature trees, and the suitability of habitats on site to support protected and notable species including bats, amphibians, badger and birds. Cherry laurel, false-acacia, foxglove-tree and snowberry, which are considered invasive species in London under the London Invasive Species Initiative, were also noted on site. In order to ensure compliance with wildlife legislation and relevant planning policy, the following recommendations are made (full recommendation text is provided in Chapter 7):

R1 **Habitat Loss and Enhancement:** In accordance with the provision of Chapter 11 of the National Planning Policy Framework (Conserving and Enhancing the Natural Environment) and Local Planning Policy, biodiversity enhancement measures should be incorporated into the landscaping scheme of any proposed works to maximise the ecological value of the site.

R2 **Trees:** Any trees on site, or overhanging the site, which are to be retained as a part of any proposed works should be protected in accordance with British Standard 5837: 2012 "Trees in relation to design, demolition and construction - recommendations". Protection should be installed on site prior to the commencement of any works on site.

R3 **Roosting and Foraging Bats:** The recommendations within the Preliminary Bat Roost Assessment detailed in Middlemarch Environmental Report RT-MME-128041-02 should be adhered to.

R4 **Terrestrial Mammals (including Hedgehog):** Any excavations that need to be left overnight should be covered or fitted with mammal ramps to ensure that any animals that enter can safely escape. Any open pipework with an outside diameter of greater than 120 mm must be covered at the end of each work day to prevent animals entering/becoming trapped.

R5 **Common Amphibians and Fish:** The pond should be drained when amphibians are active (generally March-September), but outside the key breeding periods of spring under the supervision of a suitably qualified ecologist to ensure no harm to any common amphibians or fish that may be present. Any amphibians found should be moved carefully to an undisturbed location in the near vicinity whilst any fish should be re-located to a suitable waterbody. Excavation of plants, debris or rubble from the pond should be undertaken sensitively and stored at the pond edge for a period of 24 hours to allow any amphibians to disperse.

R6 **Nesting Birds:** Vegetation and building clearance should be undertaken outside the nesting bird season. The nesting bird season is weather dependent but generally extends between March and September inclusive (peak period March-August).

R7 **Stag Beetle:** The clearance of the rotten tree stump should be undertaken under the supervision of an experienced ecologist. Dead wood considered valuable should be retained on site outside the construction area and should any individual stag beetles or larvae be discovered during the works they should be moved to a safe place.

R8 **Cherry Laurel, False Acacia, Foxglove-Tree and Snowberry:** the works must not cause cherry laurel, false acacia foxglove-tree and snowberry to spread into the wild. The plants must either remain in situ or be removed with care and disposed of in an appropriate manner.

CONTENTS

1. INTRODUCTION

1.1 PROJECT BACKGROUND

In May 2018 PRC Architecture and Planning commissioned Middlemarch Environmental Ltd to undertake a Preliminary Ecological Appraisal of the site of a proposed development at 13, 19 – 29 Lower Teddington Road and Orione Care Home in Hampton Wick, London. This assessment is required to inform a planning application associated with the reconfiguration of existing properties, the demolition of the existing care home and the redevelopment of a new extra care building.

To assess the existing ecological interest of the site an ecological desk study was carried out, and a walkover survey was undertaken on 24th May and 24th July 2018. In addition, Middlemarch Environmental Ltd has been commissioned to undertake a Preliminary Bat Roost Assessment of the buildings and trees on site, the details of which are found in Report RT-MME-128041-02.

1.2 SITE DESCRIPTION AND CONTEXT

The site under consideration consists of two irregular shaped parcels of land located on Lower Teddington Road.

The larger parcel of land, henceforth Plot 1, is located at the junction of Lower Teddington and Station Road in Hampton, London. Plot 1 measures approximately 0.5 ha in size and it is centred on Ordnance Survey Grid Reference TQ 17605 69753. At the time of the survey, the parcel of land was fronted by four Victorian/Georgian age villas (19-29) with associated front gardens. Residential gardens were located to the rear of the villas, characterised by well managed shrub beds, amenity grassland and scattered mature trees and. Orione House, a four-storey care home occupied the western portion of the plot, with associated carpark and landscaping. Station Road abuts the northern boundary, while Lower Teddington Road abuts the eastern boundary. Residential housing and associated gardens lay beyond remaining boundaries.

The smaller parcel of land, henceforth Plot 2, associated with 13 Lower Teddington Road was also included in the assessment. The parcel measures approximately 0.07 ha and comprises a Victorian/Georgian age villa, an annex and associated residential garden.

The wider landscape is predominantly residential in character. The River Thames is located 50 m to the east beyond Lower Teddington Road and further Victorian era housing. A vegetated railway line runs approximately 10 m to the south of Plot 2. The wider landscape is characterised by further residential areas in addition to large open areas of greenspace in the form of Hampton Wick and Bushy Park.

1.3 DOCUMENTATION PROVIDED

The conclusions and recommendations made in this report are based on information provided by the client regarding the scope of the project. Documentation made available by the client is listed in Table 1.1.

Document Name / Drawing Number	Author
Site Plan as Proposed / 10901_FE-100-P1	PRC
Site Plan as Proposed (Roof) / 10901_FE-101	PRC
Arboricultural Opportunities and Constraints Report / 18101	Barrell Tree Consultancy

Table 1.1: Documentation Provided by Client

2. METHODOLOGIES

2.1 DESK STUDY

An ecological desk study was undertaken to determine the presence of any designated nature conservation sites and protected species in proximity to the site. This involved contacting appropriate statutory and non-statutory organisations which hold ecological data relating to the survey area. Middlemarch Environmental Ltd then assimilated and reviewed the desk study data provided by these organisations.

The consultees for the desk study were:

- Natural England - *MAGIC* website for statutory conservation sites; and,
- GiGL – Greenspace Information for Greater London.

The desk study included a search for European statutory nature conservation sites within a 5 km radius of the site (extended to 10 km for any statutory site designated for bats), UK statutory sites within a 2 km radius and non-statutory sites and protected/notable species records within a 1 km radius.

The data collected from the consultees is discussed in Chapter 4. Selected raw data are provided in Appendix 1. In compliance with the terms and conditions relating to its commercial use, the full desk study data is not provided within this report.

The desk study also included a review of relevant local planning policy with regard to biodiversity and nature conservation (see Chapter 3).

2.2 PHASE 1 HABITAT SURVEY

The walkover survey was conducted following the Phase 1 Habitat Survey methodology of the Joint Nature Conservation Committee (JNCC, 2010) and the Institute of Environmental Assessment (IEA, 1995). Phase 1 Habitat Survey is a standard technique for classifying and mapping British habitats. The aim is to provide a record of habitats that are present on site. During the survey, the presence, or potential presence, of protected species was noted.

Whilst every effort is made to notify the client of any plant species listed on Schedule 9 of the Wildlife and Countryside Act (1981, as amended) present on site, it should be noted that this is not a specific survey for these species.

Data recorded during the field survey are discussed in Chapter 5.

3. LEGISLATION AND POLICY

This chapter provides an overview of the framework of legislation and policy which underpins nature conservation and is a material consideration in the planning process in England. The reader should refer to the original legislation for the definitive interpretation.

3.1 GENERAL BIODIVERSITY LEGISLATION AND POLICY

Conservation of Habitats and Species Regulations 2017 (The Habitats Regulations 2017)
The Habitats Regulations 2017 consolidate and update the Habitats Regulations 2010 (as amended). The Habitat Regulations 2017 are the principal means by which the EEC Council Directive 92/43 (The Habitats Directive) as amended is transposed into English and Welsh law.

The Habitats Regulations 2017 place duty upon the relevant authority of government to identify sites which are of importance to the habitats and species listed in Annexes I and II of the Habitats Directive. Those sites which meet the criteria are, in conjunction with the European Commission, designated as Sites of Community Importance, which are subsequently identified as Special Areas of Conservation (SAC) by the European Union member states. The regulations also place a duty upon the government to maintain a register of European protected sites designated as a result of EC Directive 79/409/EEC on the Conservation of Wild Birds (The Birds Directive). These sites are termed Special Protection Areas (SPA) and, in conjunction with SACs, form a network of sites known as Natura 2000. The Habitats Directive introduces for the first time for protected areas, the precautionary principle; that is that projects can only be permitted having ascertained no adverse effect on the integrity of the site. Projects may still be permitted if there are no alternatives, and there are imperative reasons of overriding public interest.

The Habitats Regulations 2017 also provide for the protection of individual species of fauna and flora of European conservation concern listed in Schedules 2 and 5 respectively. Schedule 2 includes species such as otter and great crested newt for which the UK population represents a significant proportion of the total European population. It is an offence to deliberately kill, injure, disturb or trade these species. Schedule 5 plant species are protected from unlawful destruction, uprooting or trade under the regulations.

The Wildlife and Countryside Act (WCA) 1981 (as amended)
The WCA, as amended, consolidates and amends pre-existing national wildlife legislation in order to implement the Bern Convention and the Birds Directive. It complements the Habitat Regulations 2017, offering protection to a wider range of species. The Act also provides for the designation and protection of national conservation sites of value for their floral, faunal or geological features, termed Sites of Special Scientific Interest (SSSIs).

Schedules of the act provide lists of protected species, both flora and fauna, and detail the possible offences that apply to these species.

The Countryside and Rights of Way (CRoW) Act 2000
The CROW Act, introduced in England and Wales in 2000, amends and strengthens existing wildlife legislation detailed in the WCA. It places a duty on government departments and the National Assembly for Wales to have regard for biodiversity, and provides increased powers for the protection and maintenance of SSSIs. The Act also contains lists of habitats and species (Section 74) for which conservation measures should be promoted, in accordance with the recommendations of the Convention on Biological Diversity (Rio Earth Summit) 1992.

The Natural Environment and Rural Communities (NERC) Act 2006
Section 40 of the NERC Act places a duty upon all local authorities and public bodies in England and Wales to promote and enhance biodiversity in all of their functions. Sections 41 (England) and 42 (Wales) list habitats and species of principal importance to the conservation of biodiversity. These lists superseded Section 74 of the CRoW Act 2000.

The Hedgerow Regulations 1997
The Hedgerow Regulations make provision for the identification of important hedgerows which may not be removed without permission from the Local Planning Authority.

UK Post-2010 Biodiversity Framework

The UK Biodiversity Action Plan (BAP), published in 1994, was the UK Government's response to signing the Convention on Biological Diversity (CBD) at the 1992 Rio Earth Summit. The new UK Post-2010 Biodiversity Framework replaces the previous UK level BAP. The UK Post-2010 Biodiversity Framework covers the period 2011-2020 and forms the UK Government's response to the new strategic plan of the United Nations Convention on Biological Diversity (CBD), published in 2010 at the CBD meeting in Nagoya, Japan. This includes five internationally agreed strategic goals and supporting targets to be achieved by 2020. The five strategic goals agreed were:

- Address the underlying causes of biodiversity loss by mainstreaming biodiversity across government and society;
- Reduce the direct pressures on biodiversity and promote sustainable use;
- To improve the status of biodiversity by safeguarding ecosystems, species and genetic diversity;
- Enhance the benefits to all from biodiversity and ecosystem services; and,
- Enhance implementation through participatory planning, knowledge management and capacity building.

The Framework recognises that most work which was previously carried out under the UK BAP is now focused on the four individual countries of the United Kingdom and Northern Ireland, and delivered through the countries' own strategies. Following the publication of the new Framework the UK BAP partnership no longer operates but many of the tools and resources originally developed under the UK BAP still remain of use and form the basis of much biodiversity work at country level. In England the focus is on delivering the outcomes set out in the Government's 'Biodiversity 2020: a Strategy for England's Wildlife and Ecosystem Services' (DEFRA, 2011). This sets out how the quality of our environment on land and at sea will be improved over the next ten years and follows on from policies contained in the Natural Environment White Paper.

Species and Habitats of Material Consideration for Planning in England

Previous planning policy (and some supporting guidance which is still current, e.g. ODPM Circular 06/2005, now under revision), refers to UK BAP habitats and species as being a material consideration in the planning process. Equally many local plans refer to BAP priority habitats and species. Both remain as material considerations in the planning process but such habitats and species are now described as Species and Habitats of Principal Importance for Conservation in England, or simply priority habitats and priority species under the UK Post-2010 Biodiversity Framework. The list of habitats and species remains unchanged and is still derived from Section 41 list of the Natural Environmental and Rural Communities (NERC) Act 2006. As was previously the case when it was a BAP priority species hen harrier continues to be regarded as a priority species although it does not appear on the Section 41 list.

3.2 NATIONAL PLANNING POLICY FRAMEWORK AND PRACTICE GUIDANCE

In early 2012, the National Planning Policy Framework (NPPF) replaced much previous planning policy guidance, including Planning Policy Statement 9: Biological and Geological Conservation. The government circular 06/05: Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System, which accompanied PPS9, still remains valid. A presumption towards sustainable development is at the heart of the NPPF. This presumption does not apply however where developments require appropriate assessment under the Birds or Habitats Directives.

Chapter 11, on conserving and enhancing the natural environment, sets out how the planning system should contribute to and enhance the natural and local environment by minimising impacts on biodiversity and, where possible, provide net gains in biodiversity. Opportunities to incorporate biodiversity gains into a development should be encouraged.

If a proposed development would result in significant harm to the natural environment which cannot be avoided (through the use of an alternative site with less harmful impacts), mitigated or compensated for (as a last resort) then planning permission should be refused.

In March 2014 the Department for Communities and Local Government released guidance to support the National Planning Policy Framework (NPPF), known as the National Planning Practice Guidance (NPPG).

This has been produced to provide guidance for planners and communities which will help deliver high quality development and sustainable growth in England. The guidance includes a section entitled 'Natural Environment: Biodiversity, ecosystems and green infrastructure' which sets out information with respect to the following:

- the statutory basis for minimising impacts on biodiversity and providing net gains where possible;
- the local planning authority's requirements for planning for biodiversity;
- what local ecological networks are and how to identify and map them;
- the sources of ecological evidence;
- the legal obligations on local planning authorities and developers regarding statutory designated sites and protected species;
- the considerations for local (non-statutory) designated sites;
- definition of green infrastructure;
- where biodiversity should be taken into account in preparing a planning application;
- how development can enhance biodiversity;
- how policy is applied to avoid, mitigate or compensate for significant harm to biodiversity and how mitigation and compensation measures can be ensured; and,
- the consideration of ancient woodlands and veteran trees in planning decisions.

3.3 LONDON PLANNING POLICY

https://www.london.gov.uk/what-we-do/planning/london-plan

The London Plan (consolidated with alterations since 2011)
The London Plan, is the overall strategic plan for London, setting out an integrated economic, environmental, transport and social framework for the development of London over the next 20–25 years. It is the policies in this document that form part of the development plan for Greater London, and which should be taken into account in taking relevant planning decisions, such as determining planning applications.

The 2015-16 Minor Alterations (MALPs) have been prepared to bring the London Plan in line with the national housing standards and car parking policy. The alterations were published on 14th March 2016.

The policies of relevance to ecology are:

Policy 2.18 Green Infrastructure: The Multifunctional Network of Open and Green 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 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

LDF Preparation

F) Boroughs should:

a. set out a strategic approach to planning positively for the creation, protection, enhancement and management of networks of green infrastructure by producing green infrastructure strategies that cover all forms of green and open space and the interrelationship between these spaces. These should identify priorities for addressing deficiencies and should set out positive measures for the design and management of all forms of green and open space. Delivery of local biodiversity action plans should be linked to these strategies.

b. ensure that in and through DPD policies, green infrastructure needs are planned and managed to realise the current and potential value of these to communities and to support delivery of the widest range of linked environmental and social benefits

c. in London's urban fringe support, through appropriate initiatives, the vision of creating and protecting an extensive and valued recreational landscape of well-connected and accessible countryside around London for both people and wildlife.

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), 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 designations (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 bio diversity impacts, seek appropriate compensation.

LDF preparation
F) In their LDFs, Boroughs should:

a. use the procedures in the Mayor's Biodiversity Strategy to identify and secure the appropriate management of sites of borough and local importance for nature conservation in consultation with the London Wildlife Sites Board.
b. identify areas deficient in accessible wildlife sites and seek opportunities to address them
c. include policies and proposals for the protection of protected/ priority species and habitats and the enhancement of their populations and their extent via appropriate BAP targets
d. ensure sites of European or National Nature Conservation Importance are clearly identified.
e. identify and protect and enhance corridors of movement, such as green corridors, that are of strategic importance in enabling species to colonise, re-colonise and move between sites.

Policy 7.21 Trees and Woodland
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'. Wherever appropriate, the planting of additional trees should be included in new developments, particularly large-canopied species.

LDF preparation
C) Boroughs should follow the advice of paragraph 118 of the NPPF to protect 'veteran' trees and ancient woodland where these are not already part of a protected site.
D) Boroughs should develop appropriate policies to implement their borough tree strategy.

Policy 7.28 Restoration of the Blue Ribbon Network
Planning decisions
A) Development proposals should restore and enhance the Blue Ribbon Network by:

a. taking opportunities to open culverts and naturalise river channels
b. increasing habitat value. Development which reduces biodiversity should be refused
c. preventing development and structures into the water space unless it serves a water related purpose.
d. protecting the value of the foreshore of the Thames and tidal rivers
e. resisting the impounding of rivers
f. protecting the open character of the Blue Ribbon Network.

LDF preparation
B) Within LDFs boroughs should identify any parts of the Blue Ribbon Network where particular biodiversity improvements will be sought, having reference to the London River Restoration Action Plan.

Policy 7.30 London's Canals and Other Rivers and Waterspaces
Planning decisions
A) Development proposals along London's canal network and other rivers and waterspace (such as reservoirs, lakes and ponds) should respect their local character and contribute to their accessibility and active water related uses, in particular transport uses, where these are possible.
B) Development within or alongside London's docks should protect and promote the vitality, attractiveness and historical interest of London's remaining dock areas by:

a. preventing their partial or complete in-filling
b. promoting their use for mooring visiting cruise ships and other vessels
c. encouraging the sensitive use of natural landscaping and materials in and around dock areas
d. promoting their use for water recreation
e. promoting their use for transport LDF preparation

C) Within LDFs boroughs should identify any local opportunities for increasing the local distinctiveness and use of their parts of the Blue Ribbon Network.

Draft London Plan

The current 2016 consolidation Plan is still the adopted Development Plan. However, the Draft London Plan is a material consideration in planning decisions. It gains more weight as it moves through the process to adoption, however the weight given to it is a matter for the decision maker. It is anticipated that new plan will be fully adopted in Autumn 2019. Those draft policies of relevance to ecology are detailed below:

Policy G1 Green infrastructure

A. London's network of green and open spaces, and green features in the built environment such as green roofs and street trees, should be protected, planned, designed and managed as integrated features of green infrastructure.
B. Boroughs should prepare green infrastructure strategies that integrate objectives relating to open space provision, biodiversity conservation, flood management, health and wellbeing, sport and recreation.
C. Development Plans and Opportunity Area Planning Frameworks should:
    1) identify key green infrastructure assets, their function and their potential function;
    2) identify opportunities for addressing environmental and social challenges through strategic green infrastructure interventions.

Policy 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 set factors, but tailored to local circumstances. In the interim, the Mayor recommends a target score of 0.4 for developments that are predominately residential, and a target score of 0.3 for predominately commercial development.

Policy G6 Biodiversity and Access to Nature

A. Sites of Importance for Nature Conservation (SINCs) should be protected. The greatest protection should be given to the most significant sites.
B. In developing Development Plan policies, boroughs should:
    1) use the relevant procedures to identify SINCs and green corridors. When undertaking comprehensive reviews of SINCs across a borough or when identifying or amending Sites of Metropolitan Importance boroughs should consult the London Wildlife Sites Board
    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) seek opportunities to create habitats that are of particular relevance and benefit in an urban context
    4) include policies and proposals for the protection and conservation of priority species and habitats and opportunities for increasing species populations
    5) ensure sites of European or national nature conservation importance are clearly identified and appropriately assessed.
C. Where harm to a SINC (other than a European (International) designated site) is unavoidable, the following approach should be applied to minimise development impacts:
    1) avoid adverse impact to the special biodiversity interest of the site
    2) minimise the spatial impact and mitigate it by improving the quality or management of the rest of the site
    3) seek appropriate off-site compensation only in exceptional cases where the benefits of the development proposal clearly outweigh the biodiversity impacts.
D. Biodiversity enhancement should be considered from the start of the development process.
E. Proposals which create new or improved habitats that result in positive gains for biodiversity should be considered positively, as should measures to reduce deficiencies in access to wildlife sites.

Policy G7 Trees and Woodlands

A. Trees and woodlands should be protected, and new trees and woodlands should be planted in appropriate locations in order to increase the extent of London's urban forest – the area of London under the canopy of trees.
B. In their Development Plans, boroughs should:
    1) protect 'veteran' trees and ancient woodland where these are not already part of a protected site
    2) identify opportunities for tree planting in strategic locations.
C. Development proposals should ensure that, wherever possible, existing trees of quality are retained. If it is imperative that trees have to be removed, there should be adequate replacement based on the existing value of the benefits of the trees removed, determined by, for example, i-tree or CAVAT. The planting of additional trees should generally be included in new developments – particularly large-canopied species which provide a wider range of benefits because of the larger surface area of their canopy.

Policy SI17 Protecting London's Waterways

A. Development proposals that facilitate river restoration, including opportunities to open culverts, naturalise river channels, protect the foreshore and increase the heritage and habitats value, should be supported if appropriate. Development proposals to impound and constrain waterways should be refused.
B. Development proposals should support and improve the protection of the distinct open character and heritage of waterways.
C. Development proposals into the waterways, including permanently moored vessels and development into the waterways should generally only be supported for water-related uses.
D. Development proposals along London's canal network, docks, other rivers and water space (such as reservoirs, lakes and ponds) should respect their local character and environment and should contribute to their accessibility and active water-related uses. Development Plans should identify opportunities for increasing local distinctiveness.
E. On-shore power at water transport facilities should be provided at wharves and residential moorings to help reduce air pollution.

3.4 LOCAL PLANNING POLICY

http://www.richmond.gov.uk/home/services/planning/planning_policy/local_plan.htm

The Local Plan (previously known as Local Development Framework) sets out the priorities for the development of the borough and is used for making decisions on planning applications. It consists of a number of planning documents and guidance.

Core Strategy

The Local Development Framework Core Strategy (adopted April 2009) contains spatial policies which set out the key planning policies for the Borough. The following policies are of relevance to ecology:

Policy CP4 Biodiversity

The Borough's biodiversity including the SSSIs and Other Sites of Nature Importance will be safeguarded and enhanced. Biodiversity enhancements will be encouraged particularly in areas of deficiency (parts of Whitton, Hampton, Teddington, Twickenham and South Kew), in areas of new development and along wildlife corridors and green chains such as the River Thames and River Crane corridors.

Weighted priority in terms of their importance will be afforded to protected species and priority species and habitats in the UK, Regional and Richmond upon Thames Biodiversity Action Plans.

Policy CP11 River Thames Corridor

The natural and built environment and the unique historic landscape of the River Thames corridor within the Borough will be protected and enhanced, and the special character of the different reaches identified in the Thames Strategy and the Thames Landscape Strategy respected. River related industries will be protected, and encouraged.

Policy CP12 River Crane Corridor
The Council will improve the strategic corridor to provide an attractive open space with improvements to the biodiversity. Developments in and adjacent to the River Crane Corridor will be expected to contribute to improving the environment and access, in line with planning guidance.

Development Management Plan
The Local Development Framework Development Management Plan (adopted November 2011) provides more detailed policies for the control of development in the borough. Those of relevance to biodiversity are detailed below:

Policy DM OS 2 Metropolitan Open Land
The borough's Metropolitan Open Land will be protected and retained in predominately open use. Appropriate uses include public and private open spaces and playing fields, open recreation and sport, biodiversity including rivers and bodies of water and open community uses including allotments and cemeteries. It will be recognised that there may be exceptional cases where appropriate development such as small scale structures is acceptable, but only if it:

1. Does not harm the character and openness of the metropolitan open land; and
2. Is linked to the functional use of the Metropolitan Open Land or supports outdoor open space uses; or
3. Is for essential utility infrastructure and facilities, for which it needs to be demonstrated that no alternative locations are available and that they do not have any adverse impacts on the character and openness of the metropolitan open land.

Improvement and enhancement of the openness and character of the Metropolitan Open Land and measures to reduce visual impacts will be encouraged where appropriate.

When considering developments on sites outside Metropolitan Open Land, any possible visual impacts on the character and openness of the Metropolitan Open Land will be taken into account.

Policy DM OS 5 Biodiversity and New Development
All new development will be expected to preserve and where possible enhance existing habitats including river corridors and biodiversity features, including trees.

All developments will be required to enhance existing and incorporate new biodiversity features and habitats into the design of buildings themselves as well as in appropriate design and landscaping schemes of new developments with the aim to attract wildlife and promote biodiversity, where possible.

When designing new habitats and biodiversity features, consideration should be given to the use of native species as well as the adaptability to the likely effects of climate change.

New habitats and biodiversity features should make a positive contribution to and should be integrated and linked to the wider green and blue infrastructure network, including de-culverting rivers, where possible.

Policy DM DC 4 Trees and Landscape
The boroughs trees and landscape will be protected and enhanced by:

- The use of Tree Preservation Orders (TPOs) where appropriate;
- Planting and encouraging others to plant trees, clumps and thickets particularly in areas of deficiency as shown on the Proposals Map and of a type and species as set out in the Borough's Tree Strategy.
- continuing to maintain trees in streets and public open spaces and of selectively clearing and replanting trees;
- requiring landscape proposals in submissions for new development, which retain existing trees and other important landscape features where practicable and include new trees and other planting. Where trees are removed, appropriate replacement planting will normally be required. There will be a presumption against schemes that result in a significant loss of trees, unless replacements are proposed and there is good reason such as the health of the trees, public amenity, street scene or restoration of an historic garden. Landscaping schemes should take account of the Borough's Tree Strategy.

Local Plan Review

The council are currently preparing a new Local Plan for the borough, which will replace the existing policies within the Core Strategy (April 2009) and Development Management Plan (November 2011). This new plan is set to be adopted in Spring 2018.

4. DESK STUDY RESULTS

4.1 INTRODUCTION

The data search was carried out in May 2018 by GiGL – Greenspace Information for Greater London. All relevant ecological data provided by the consultees was reviewed and the results from these investigations are summarised in Sections 4.2 to 4.4. Selected data are provided in Appendix 1.

4.2 NATURE CONSERVATION SITES

Statutory and non-statutory nature conservation sites located in proximity to the survey area are summarised in Table 4.1.

Site Name	Designation	Proximity to Survey Area	Description
European Statutory Sites			
Richmond Park	SAC / SSSI / NNR / LNR	1.7 km north-east	Richmond Park has been managed as a royal deer park since the seventeenth century, producing a range of habitats of value to wildlife. In particular, Richmond Park is of importance for its diverse deadwood beetle fauna associated with the ancient trees found throughout the parkland. In addition the Park supports the most extensive area of dry acid grassland in Greater London. Richmond Park has a large number of ancient trees with decaying timber. It is at the heart of the south London centre of distribution for stag beetle *Lucanus cervus*, and is a site of national importance for the conservation of the fauna of invertebrates associated with the decaying timber of ancient trees.
Wimbledon Common	SAC	4.1 km north-east	Wimbledon Common has a large number of old trees and much fallen decaying timber. It is at the heart of the south London centre of distribution for stag beetle *Lucanus cervus*, and a relatively large number of records were received from this site during a recent nationwide survey for the species (Percy *et al*. 2000). The site supports a number of other scarce invertebrate species associated with decaying timber.
UK Statutory Sites			
Bushy Park and Home Park	SSSI / SMI	385 m south-west	Bushy Park and Home Park SSSI is of special interest for its nationally important saproxylic (dead and decaying wood associated) invertebrate assemblage, population of veteran trees and acid grassland communities. These features occur within and are supported by the wider habitat mosaic. The saproxylic invertebrates include those associated with heartwood decay, bark and sapwood decay and with fungal fruiting-bodies found within the veteran trees which are located throughout the site, notably in the large areas currently managed as wood pasture. Lowland dry acid grassland communities present include National Vegetation Classification types U1 sheep's fescue *Festuca ovina*, common bent *Agrostis capillaris*, sheep's sorrel *Rumex acetosella* grassland which are found within the grassland mosaic.
Ham Lands	LNR	2.0 km north-west	Ham Lands LNR is an extensive area of grassland and scrub with abundant wildlife. The site was once extensively excavated for gravel, then back-filled over time with a variety of soil types. This has created a unique mosaic of different vegetation types attracting many butterflies and bird species. In spring, the site is full of hawthorn blossom and in the summer, the meadows support hundreds of wild flowers.

Table 4.1: Summary of Nature Conservation Sites (continues)

Site Name	Designation	Proximity to Survey Area	Description
Non-statutory Sites			
River Thames and tidal tributaries	SMI	60 m east	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. The Thames is extremely important for fish, with over 100 species now present. Barking Creek supports extensive reed beds. Further downstream are small areas of saltmarsh, a very rare habitat in London, where there is a small population of the nationally scarce marsh sow-thistle *Sonchus palustris*. The numerous small islands in the upper reaches support important invertebrate communities, including several nationally rare snails, as well as a number of heronries.
The Copse at Hampton Wick and Normansfield Hospital	SLI	320 m north	The Copse is a small educational nature reserve, run by the Borough Council. It is largely wooded, with a canopy of sycamore *Acer pseudoplatanus* over an understorey of birch (Betula pendula), elder *Sambucus nigra* and willow *Salix* sp. Ivy *Hedera helix* scrambles up many of the trees, and the ground flora is dominated by cow parsley *Anthriscus sylvestris*. It is well used by local schools, but is not accessible to the public.
Hogsmill River in Central Kingston	SLI	550 m south-east	This downstream stretch of the Hogsmill River extends from Villiers Road to its confluence with the River Thames just upstream of Kingston Bridge, where the Hogsmill ends its journey which began near Ewell. Much of the Hogsmill within the Royal Borough is followed by the London LOOP, the Thames Down Link and the Hogsmill Valley Walk, which also follow this section via footpaths along the top of the banks. At the Thames confluence a series of rafts, provide nesting and roosting sites for birds. Both the vegetated rafts and the exposed shingle are likely to provide habitats for invertebrates. Many fish can be seen in the river.
Key: SAC: Special Area of Conservation SSSI: Site of Special Scientific Interest NNR: National Nature Reserve LNR: Local Nature Reserve SMI: Site of Metropolitan Importance SLI: Site of Local Importance			

Table 4.1 (Continues): Summary of Nature Conservation Sites

The survey area falls within the SSSI impact risk zone for Bushy Park and Home Park SSSI located 385 m south-west as detailed in Table 4.1

4.3 PROTECTED / NOTABLE SPECIES

Table 4.2 and the following text provide a summary of protected and notable species records within a 1 km radius of the study area. It should be noted that the absence of records should not be taken as confirmation that a species is absent from the search area.

Species	No. of Records	Most Recent Record	Proximity of Nearest Record to Study Area	Species of Principal Importance?	Legislation / Conservation Status
Mammals – bat					
Pipistrelle *Pipistrellus* sp.	58	2017	65 m west	#	ECH 4, WCA 5, WCA 6, Local
Unidentified bat *Vespertilionidae* sp.	27	2002	110 m north-west	#	#, Local
Soprano pipistrelle *Pipistrellus pygmaeus*	227	2017	165 m north	✓	ECH 4, WCA 5, WCA 6, Local
Daubenton's bat *Myotis daubentonii*	123	2014	165 m north	-	ECH 4, WCA 5, WCA 6, Local
Unidentified myotis *Myotis* sp.	48	2007	205 m north	-	ECH 4, WCA 5, WCA 6
Common pipistrelle *Pipistrellus pipistrellus*	91	2017	210 m north	-	ECH 4, WCA 5, WCA 6, Local
Noctule *Nyctalus noctula*	54	2014	210 m north	✓	ECH 4, WCA 5, WCA 6, Local
Leisler's bat *Nyctalus leisleri*	23	2014	255 m north	-	ECH 4, WCA 5, WCA 6, Local
Serotine bat *Eptesicus serotinus*	11	2014	255 m north	-	ECH 4, WCA 5, WCA 6, Local
Natterer's bat *Myotis nattereri*	17	2013	255 m north	-	ECH 4, WCA 5, WCA 6, Local
Nathusius's pipistrelle *Pipistrellus nathusii*	17	2012	255 m north	-	ECH 4, WCA 5, WCA 6, Local
Brown long-eared bat *Plecotus auritus*	7	2007	530 m north-west	✓	ECH 4, WCA 5, WCA 6, Local
Long-eared bat *Plecotus* sp.	2	2007	530 m north-west	#	ECH 4, WCA 5, WCA 6, Local
Unidentified nyctalus *Nyctalus* sp.	2	2007	990 m north	#	#, Local
Mammals – other					
Hedgehog *Erinaceus europaeus*	26	2002	110 m north-west	✓	WCA 6, Local
Grey seal *Halichoerus grypus*	2	2015	245 m north	-	ECH 2, ECH 5
Water vole *Arvicola amphibius*	3	2001	515 m north	✓	WCA 5, Local
Badger *Meles meles*	10	2017	†	-	WCA 6, PBA, Local
Amphibians					
Common frog *Rana temporaria*	33	2006	95 m north	-	WCA 5 S9(5), Local
Common toad *Bufo bufo*	5	2010	295 m north	✓	WCA 5 S9(5), Local
Reptiles					
Grass snake *Natrix natrix*	1	2003	565 m north	✓	WCA 5 S9(1), WCA 5 S9(5), Local
Birds					
Redwing *Turdus iliacus*	67	2015	140 m north	-	WCA1i
Kingfisher *Alcedo atthis*	48	2017	255 m north	-	WCA1i, Local
Brambling *Fringilla montifringilla*	3	2010	425 m south-west	-	WCA1i

Table 4.2: Summary of Protected/Notable Species Records Within 1 km of Survey Area (continues)

Species	No. of Records	Most Recent Record	Proximity of Nearest Record to Study Area	Species of Principal Importance?	Legislation / Conservation Status
Birds (continued)					
Fieldfare *Turdus pilaris*	27	2014	625 m north	-	WCA1i
Green sandpiper *Tringa ochropus*	7	2006	625 m north	-	WCA1i
Black redstart *Phoenicurus ochuros*	3	2011	785 m north	-	WCA1i, Local
Crossbill *Loxia curvirostra*	1	2012	835 m north	-	WCA1i, Local
Greenshank *Tringa nebularia*	1	2000	935 m west	-	WCA1i
Peregrine *Falco peregrinus*	48	2015	†	-	WCA1i, Local
Eurasian hobby *Falco subbuteo*	1	2012	†	-	WCA1i, Local
Red kite *Milvus milvus*	1	2012	†	-	WCA1i
Dartford warbler *Sylvia undata*	3	2006	†	-	WCA1i
Bony Fish					
European eel *Anguilla anguilla*	1	2016	210 m north	✓	Local
Barbel *Barbus barbus*	1	2016	785 m north	-	ECH 5
Invertebrates					
Stag beetle *Lucanus cervus*	70	2017	110 m north-west	✓	ECH 2, WCA 5 S9(5), Local

Key:
#: Dependent on species.
†: The records of this species are confidential and therefore proximity is not provided within the report.

ECH 2: Annex II of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora. Animal and plant species of community interest whose conservation requires the designation of Special Areas of Conservation.
ECH 4: Annex IV of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora. Animal and plant species of community interest in need of strict protection.
ECH 5: Annex V of the European Communities Council Directive on the Conservation of Natural Habitats and Wild Fauna and Flora. Animal and plant species of community interest whose taking in the wild and exploitation may be subject to management measures
PBA: Protection of Badgers Act 1992.

WCA 1i: Schedule 1 Part 1 of Wildlife and Countryside Act 1981 (as amended). Birds protected by special penalties at all times.
WCA 5: Schedule 5 of Wildlife and Countryside Act 1981 (as amended). Protected animals (other than birds).
WCA 5 S9(1): Schedule 5 Section 9(1) of Wildlife and Countryside Act 1981 (as amended). Protected animals (other than birds). Protection limited to intentional killing, injury or taking.
WCA 5 S9(5): Schedule 5 Section 9(5) of Wildlife and Countryside Act 1981 (as amended). Protected animals (other than birds). Protection limited to selling, offering for sale, processing or transporting for purpose of sale, or advertising for sale, any live or dead animal, or any part of, or anything derived from, such animal.
WCA 6: Schedule 6 of Wildlife and Countryside Act 1981 (as amended). Animals which may not be killed or taken by certain methods.

Species of Principal Importance: Species of Principal Importance for Nature Conservation in England.
Local: Priority Species on the London Local Biodiversity Action Plan.

Note. This table does not include reference to the Berne Convention (Convention on the Conservation of European Wildlife and Natural Habitats), the Bonn Convention on the Conservation of Migratory Species of Wild Animals or the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

Table 4.2: Summary of Protected/Notable Species Records Within 1 km of Survey Area

Birds
The desk study provided records of fifteen species of birds listed as Species of Principal Importance within a 1 km radius of the survey area. These included linnet *Linaria cannabina*, reed bunting *Emberiza schoeniclus*, skylark *Alauda arvensis*, song thrush *Turdus philomelos* and yellow wagtail *Motacilla flava*.

The desk study provided records of grey wagtail *Motacilla cinerea* and mistle thrush *Turdus viscivorus*, which are listed under the RSPB Red List, within 1 km. The desk study also provided records of twenty species of bird listed under the RSPB Amber List within 1 km. These included common tern *Sterna hirundo*, gadwall *Anas strepera*, meadow pipit *Anthus pratensis*, tawny owl *Strix aluco* and teal *Anas crecca*.

Invertebrates
The desk study provided records of small heath butterfly *Coenonympha pamphilus* which is listed as a Species of Principal Importance within 1 km.

The desk study provided records seven species of moth listed as Species of Principal Importance within 1 km. These comprised mottled rustic moth *Caradrina morpheus*, broom moth *Ceramica pisi*, white-line dart moth *Euxoa tritici*, shoulder-striped wainscot moth *Leucania comma*, rosy minor moth *Litoligia literosa*, buff ermine moth *Spilosoma lutea* and oak hook-tip moth *Watsonalla binaria*.

Plants
The desk study provided records of several species of notable plants within a 1 km radius of the survey area. These included two species of plant listed as Species of Principal Importance comprising true fox-sedge *Carex vulpina* and northern hawk's-beard *Crepis mollis*.

4.4 INVASIVE SPECIES

Table 4.3 provides a summary of invasive species records within a 1 km radius of the study area. It should be noted that the absence of records should not be taken as confirmation that a species is absent from the search area.

Species	No. of Records	Most Recent Record	Proximity of Nearest Record to Study Area	Legislation / Conservation Status
Japanese knotweed *Fallopia japonica*	14	2006	340 m north-east	LISI 3, WCA 9
Butterfly-bush *Buddleia davdii*	11	2009	370 m east	LISI 3
Snowberry *Symphoricarpos albus*	2	2006	370 m east	LISI 2
Foxglove-tree *Paulownia tomentosa*	1	2005	420 m south	LISI 5
Cherry laurel *Prunus laurocerasus*	1	2009	470 m west	LISI 3
Turkey oak *Quercus cerris*	30	2010	660 m west	LISI 5
Tree-of-heaven *Ailanthus altissima*	1	1999	720 m north	LISI 3
Green alkanet *Pentaglottis sempervirens*	6	2006	750 m north-east	LISI 6
Least duckweed *Lemna minuta*	3	2012	770 m north-west	LISI 4
Orange balsam *Impatiens capensis*	9	2012	900 m south	LISI 2
Evergreen oak *Quercus ilex*	49	2011	930 m south-west	LISI 5
False-acacia *Robinia pseudoacacia*	40	2011	940 m west	LISI 4
Floating pennywort *Hydrocotyle ranunculoides*	2	2007	Within 1 km*	LISI 3, WCA 9
Goat's-rue *Galega officinalis*	5	2003	Within 1 km*	LISI 4

Table 4.3: Summary of Invasive Species Records Within 1 km of Survey Area (continued)

Species	No. of Records	Most Recent Record	Proximity of Nearest Record to Study Area	Legislation / Conservation Status
Himalayan balsam *Impatiens glandulifera*	5	2002	Within 1 km*	LISI 3, WCA 9
Few-flowered garlic *Allium paradoxum*	1	1996	Within 1 km*	LISI 2, WCA 9
Montbretia *Crocosmia x crocosmiiflora*	1	1988	Within 1 km*	LISI 2, WCA 9

Key:
WCA9: Schedule 9 of Wildlife and Countryside Act 1981 (as amended). Invasive, non-native, plants and animals.
LISI: London Invasive Species Initiative
LISI 2: London Invasive Species Initiative – Species of high impact or concern present at specific sites that require attention (control, management, eradication etc).
LISI 3: London Invasive Species Initiative – Species of high impact or concern which are widespread in London and require concerted, coordinated and extensive action to control/eradicate.
LISI 4: London Invasive Species Initiative – Species which are widespread for which eradication is not feasible but where avoiding spread to other sites may be required.
LISI 5: London Invasive Species Initiative – Species for which insufficient data or evidence was available from those present to be able to prioritise.
LISI 6: London Invasive Species Initiative – Species that were not currently considered to pose a threat or have the potential to cause problems in London.

Table 4.3 (Continues): Summary of Invasive Species Records Within 1 km of Survey Area

5. PHASE 1 HABITAT SURVEY

5.1 INTRODUCTION

The results of the Phase 1 Habitat Survey are presented in the following sections. An annotated Phase 1 Habitat Survey Drawing for both plots of land (Drawing C128041-01 and C128041-02) is provided in Chapter 8. The drawings illustrate the location and extent of all habitat types recorded on site. Any notable features or features too small to map are detailed using target notes. Photographs taken during the field survey are presented in Chapter 9.

The survey was carried out on 24th May 2018 by Will Rees, Ecological Consultant. A further survey was carried out on July 24th by Paul Roebuck, Principal Consultant and Will Rees, Ecological Consultant, to address the addition of Plot 2 to the development boundary. Table 5.1 and 5.2 detail the weather conditions at the time of the surveys.

Parameter	Condition
Temperature (ºC)	18
Cloud (%)	100
Wind (Beaufort)	F2
Precipitation	Nil

Table 5.1: Weather Conditions During Field Survey on 24th May 2018

Parameter	Condition
Temperature (ºC)	25
Cloud (%)	30
Wind (Beaufort)	F1
Precipitation	Nil

Table 5.2: Weather Conditions During Field Survey on 24th July 2018

5.2 SURVEY CONSTRAINTS AND LIMITATIONS

No significant constraints were experienced during the field survey.

5.3 HABITATS

The following habitat types were recorded on site during the field survey:

- Amenity grassland;
- Bare ground;
- Buildings;
- Hedgerow;
- Introduced shrub;
- Scattered scrub;
- Scattered trees; and,
- Standing water.

These habitats are described below. They are ordered alphabetically, not in order of ecological importance.

Amenity grassland
Heavily managed, shortly mown amenity grassland was present within the well managed rear gardens of both Plots (Plate 9.1). The grass had a low species diversity and included dominant perennial rye-grass *Lolium perenne*, yarrow *Achillea millefolium*, daisy *Bellis perennis*, dandelion *Taraxacum officinale* agg., cleavers *Galium aparine* and clover *Trifolium* sp.

Bare ground

Small areas of bare ground were present beneath the canopies of scattered trees along the site boundaries within Plot 1 and within the rear portion of Plot 2. Sparse ivy *Hedera helix* cover was present on the ground in addition to leaf litter.

Buildings
Victorian/Georgian age villas fronted Lower Teddington Road (Plate 9.2). Building 13 was a three-storey Victorian era building with a hipped slate roof and a two storey protrusion northern elevation. The building had a combination of brick and rendered walls. A further annex was located to the north with a pitched asbestos cement roof and metal walls.

Building 19-21 was a further three-storey Victorian era building of similar structure. 23-27 was a two-storey Victorian era building comprising a series of attached Victorian era villas, with a combination of mansard, hipped and multipitched roofing. A linking structure between sections 23-25 and 26-27, is proposed for demolition. Building 29 comprised a detached two storey villa, with a hipped slate roof. Orione House was a four-storey care home with sloped slate tiled roofing and brick walls.

Further small single storey shelters (target note 2) sheds (target note 3), garages and buildings were present within the rear garden area of Plot 1. A stone shrine with dense ivy cover provided nesting opportunities for birds in addition to roosting opportunities for bats (target note 4).

For a more detailed description of the buildings on site please refer to the Preliminary Bat Roost Assessment in Report RT-MME-128041-02.

Hedgerow
A species poor heavily pruned cherry laurel *Prunus laurocerasus* hedge was present in the rear garden of Building 19-21 (target note 1) (Plate 9.3).

A further species poor hedgerow comprising snowberry *Symphoricarpos albus* and holly *Ilex aquifolium* was present within the rear garden of 13 Lower Teddington Road.

Introduced shrub
Heavily managed introduced shrubs were present within borders around the garden edges within both Plots. Species recorded included cherry laurel *Prunus laurocerasus*, hydrangea *Hydrangea macrophylla*, hebe *Hebe* sp., rose *Rosa* sp., Mexican orange *Choisya ternata*, spindle *Euonymus europaeus*, holly, juniper *Juniperus communis*, firethorn *Pyracantha coccinea*, lilac *Syringa vulgaris*, wild privet *Ligustrum vulgare* and fern palm *Cycas revoluta*.

Heavily managed herbaceous borders and raised planters (target note 7) were present within the gardens to the rear of the villas (Plate 9.4). Species noted included iris *Iris* sp., pink-sorrel *Oxalis articulata*, daffodil *Narcissus* sp., Jerusalem artichoke *Helianthus tuberosus*, tomato *Lycopersicon esculentum*, geranium *Pelargonium* sp., pendulous sedge *Carex pendula*, lavender *Lavandula* sp., lord's and ladies *Arum maculatum*, rue *Ruta graveolens* and bergenia *Bergenia* sp.

Scattered scrub
Scattered scrub was recorded within an overgrown portion of the rear garden of 13 Lower Teddington Road. The scrub comprised self-seeding blackthorn *Prunus spinosa*, snowberry and holly.

Scattered trees
Predominately mature scattered trees were present within the gardens of the villas and care home.

Species recorded included sycamore *Acer pseudoplatanus*, smooth Japanese-maple *Acer palmatum*, blue cypress *Cupressus arizonica*, olive *Olea europaea*, Lawson's cypress *Chamaecyparis lawsoniana*, foxglove-tree *Paulownia tomentosa* (target note 12), yew *Taxus baccata*, weeping willow *Salix x sepulcralis*, sweet chestnut *Castanea sativa*, pear *Pyrus communis*, bay *Laurus nobilis*, false acacia *Robinia pseudoacacia* (target note 8), mulberry *Morus* sp., apple *Malus pumila*, Leyland cypress *Cupressus x leylandii*, holly and walnut *Juglans regia*.

Light ivy cover was noted on trees, however not sufficient to provide roosting features for bats.

A mature weeping willow (ID: T12 within Arboricultural Opportunities and Constraints Report / 18101)

contained woodpecker holes at heights of 3.5 and 4 m. The tree has bat roost potential (target note 9) (Plate 9.5). A further woodpecker hole was recorded within a mature walnut to the rear of 13 Lower Teddington Road.

A well-rotted tree stump provided potential habitat for invertebrates (target note 10).

Standing water
A small ornamental pond was located within the garden to the rear of the villas (Plate 9.6). Species recorded within the pond include yellow iris *Iris pseudacorus*, marsh-marigold *Caltha palustris*, bog arum *Calla palustris*, ivy-leaved duckweed *Lemna trisulca* and peat moss *Sphagnum* sp.

5.4 FAUNA

During the survey field signs of faunal species were recorded. The time of year at which the survey is undertaken will affect species or field signs directly recorded during the survey.

Birds
The following bird species were observed on site during the field survey: starling *Sturnus vulgaris*, jay *Garrulus glandarius* and ring-necked parakeet *Psittacula krameri*. A blue tit *Cyanistes caeruleus* was recorded making repeat visits to a piping hole in the eastern elevation brick work, indicative of an active nest.

Fauna within the pond
A male smooth newt *Lissotriton vulgaris* and goldfish *Carassius auratus* were recorded within the water of the pond on site.

5.5 INVASIVE PLANT SPECIES

Cherry laurel, foxglove-tree, false-acacia and snowberry were all noted on site during the field survey.

6. DISCUSSIONS AND CONCLUSIONS

6.1 SUMMARY OF PROPOSALS

It is understood the development proposals include the reconfiguration of existing villas, the demolition of the existing care home, and the redevelopment of a new extra care building. Existing mature trees are to be retained, although landscaping is planned.

6.2 NATURE CONSERVATION SITES

The desk study exercise identified two European statutory sites within 5 km of the survey area, two UK statutory sites within 2 km, no ancient woodlands within 2 km and three non-statutory sites within 1 km. The site is not located within 10 km of a statutory site designated for bats. The significance of these sites to the proposed development is discussed below.

European Statutory Sites
Richmond Park SAC/SSSI/NNR/LNR is the closest European statutory site located 1.7 km north-east. The remaining European statutory site is located in excess of 4.1 km from the survey. Due to the distance between these conservation sites and the survey area, as well as the built-up nature of the intervening habitat and the small-scale nature of the works proposed it is considered unlikely that these conservation sites would be adversely impacted by the proposed works. Therefore, these European statutory sites are not a notable consideration in relation to the proposed development.

UK Statutory Sites
Bushy Park and Home Park SSSI/SMI is the closest UK statutory site located 385 m south-west of the survey area. The survey area also falls within the SSSI impact risk zone for this conservation site. However, the proposed nature and scale of the development does not fall within any of the risk categories associated with this conservation site (please refer to Appendix 1 for more information). Due to the distance between this conservation site and the survey area, the built-up nature of the intervening habitats and the nature of the works proposed, it is considered unlikely that this conservation site would be directly adversely impacted by the proposed works. As the proposed works will not result in any net gain in residential properties no operational impacts, such as an increase in recreational pressure, is anticipated for this conservation site.

The remaining UK statutory site is located in excess of 2.0 km from the survey area. Due to the distance between this conservation site and the survey area, as well as the built-up nature of the intervening habitat and the small-scale nature of the works proposed it is considered unlikely that this conservation site would be adversely impacted by the proposed works. Therefore, UK statutory sites are not a notable consideration in relation to the proposed development.

Non-Statutory Sites
River Thames and tidal tributaries SMI is located 60 m east of the survey area. The remaining non-statutory sites are located in excess of 320 m from the survey area. Due to the distance between these conservation sites and the survey area, as well as the built-up nature of the intervening habitat and the small-scale nature of the works proposed it is considered unlikely that these conservation sites would be adversely impacted by the proposed works. Therefore, these non-statutory sites are not a notable consideration in relation to the proposed development.

6.3 HABITATS

The ecological importance of the habitats present on site is determined by their presence on the list of Habitats of Principal Importance in England and on the Local BAP. It also takes into account the intrinsic value of the habitat. Those habitats which are considered to be of intrinsic importance and have the potential to be impacted by the site proposals are highlighted as notable considerations.

A discussion of the implications of the site proposals with regard to the habitats present on site is provided in the text below. A separate discussion of the value of the habitats on site to protected or notable species is provided in Section 6.4.

Hedgerow
'Hedgerows' are a Habitat of Principal Importance for Nature Conservation in England if they measure over 20 m in length and less than 5 m in width, consist predominantly of at least woody UK native species, and any gaps measure less than 20 m in width. As the hedgerows present on site are dominated by cherry-laurel and snowberry, both non-native and an invasive species in London under the London Invasive Species Initiative, the hedgerows do not meet this criteria. Nevertheless, this hedgerow may be of importance for nesting birds and is discussed within Section 6.4.

Scattered trees
The mature trees on site are of intrinsic value as they cannot be easily replaced in the short to medium term. It is understood that the trees on site will be retained as part of the proposed development. Any retained trees may be indirectly impacted by the proposed works, such as root compaction by machinery etc. Therefore, a recommendation has been made in Section 7.2.

Standing water
'Ponds' are a Habitat of Principal Importance for Nature Conservation in England if they meet one or more of the relevant criteria (e.g. contain species of high conservation importance, such as great crested newt *Triturus cristatus*). Due to its small size and isolated nature, it is considered highly unlikely that this pond would support great crested newts, therefore it is unlikely that it would meet above criteria as a Habitat of Principal Importance. It is unknown if this pond will be removed to facilitate the proposed development. This pond may support a range of common amphibian species as discussed in Section 6.4. Therefore, a precautionary recommendation regarding the drainage of this pond has been made in Section 7.3.

Amenity grassland, bare ground, buildings and introduced shrub
The remaining habitats are not Habitats of Principal Importance nor are they included on the Local BAP. They are well represented locally, have low species diversity and can be easily be replaced post development. Any loss of these habitats would be considered to have minimal impact on the ecology of the local area. Therefore, these habitats are not a notable consideration in relation to the proposed works.

6.4 PROTECTED/NOTABLE SPECIES

The following paragraphs consider the likely impact of the site proposals on protected or notable species. This is based on those species highlighted in the desk study exercise (Chapter 4) and other species for which potentially suitable habitat occurs within or adjacent to the survey area.

Mammals
Bats
The desk study provided over 700 records of seven species of bat within a 1 km radius of the survey area. The closest record was of an unidentified pipistrelle located 65 m west. The buildings and trees on site were subject to a Preliminary Bat Roost Assessment. Several buildings, the shrine and a mature weeping willow possessed features suitable for roosting bats. The boundary habitats also offer suitable linear commuting and foraging features for bats. Please refer to Middlemarch Environmental Report RT-MME-128041-02 and its recommendations.

Badger
The desk study provided ten records of badger within a 1 km radius of the survey area.

Grey seal
The desk study provided two records of grey seal within a 1 km radius of the survey area, the closest of which was located 245 m north. There is no suitable habitat for grey seal on site or within the immediate vicinity of the site. Therefore, grey seal are not a notable consideration in relation to the proposed development.

Hedgehog
The desk study provided twenty-six records of hedgehog within a 1 km radius, the closest of which was located 110 m north-west. The hedge and shrubs provide suitable habitat for hedgehog within the survey area. The site is also well connected to suitable habitat in the surrounding landscape in the form of adjacent residential gardens. Excavations required as part of the proposed works may result in direct harm/injury to

hedgehog as they may fall in and become trapped. Therefore, a precautionary recommendation regarding the protection of hedgehog has been made in Section 7.3.

Water vole
The desk study provided three records of water vole within a 1 km radius of the survey area, the closest of which was located 515 m north. There is no suitable habitat for water vole on site or within the immediate vicinity of the site. Therefore, water vole are not a notable consideration in relation to the proposed development.

Amphibians
The desk study provided thirty-eight records of two species of common amphibians within a 1 km radius of the survey area. The closest record was of common frog located 95 m north. No records of great crested newt *Triturus cristatus* were provided. The ornamental pond on site is considered to provide sub-optimal habitat for great crested newt due to its small size and the presence of fish. The presence of fish significantly reduces the likelihood of the pond to support great crested newt as fish are known to predate great crested newt larvae. The site is also extremely isolated from suitable habitat in the surrounding landscape, as reference to Ordnance Survey mapped data and aerial imagery indicates that there are no other waterbodies within a 500 m radius of the site. It should be noted though, that a male smooth newt was observed within the pond during the field survey, reflecting its suitability for common amphibian species although they too are at risk of predation from fish when in the larval stage. The grassland, introduced shrub, and hedgerows also provide suitable terrestrial habitat for amphibians within the survey area. Therefore, a precautionary recommendation regarding the clearance of suitable common amphibian habitat has been made within Section 7.3.

Reptiles
The desk study provided one record of grass snake located 565 m north of the survey area. The introduced shrubs and herbaceous plants provide extremely limited suitable habitat for reptiles within the survey area. However, the site is surrounded by the built environment, isolating it from suitable habitat in the surrounding landscape. Therefore, the risk of direct harm/injury to reptiles is considered low and no further recommendations are made.

Birds
The desk study provided records of twelve species of bird listed under the Wildlife and Countryside Act 1981 (as amended) within 1 km. Due to the specific breeding requirements of these species it is considered unlikely that these species would breed within the survey area.

The desk study also provided records of several other notable bird species, as well as common bird species observed on site during the field survey. The building, shrubs, trees and hedgerows provide suitable nesting habitat for birds within the survey area. A blue tit was also observed making repeated visits to a piping hole in the eastern elevation brick work, indicative of an active nest. If the proposed works are undertaken in the bird nesting season then there is potential for impact upon nesting birds and as such, a recommendation has been made in Section 7.3. Due to the limited extent of potential nesting and foraging habitat to be removed and the presence of alternative features within the local vicinity, it is considered that the works should not adversely impact birds in the long-term. Nevertheless, as some loss of habitat will occur, enhancement recommendations are provided within Section 7.2.

Fish
The desk study provided two records of two species of fish within a 1 km radius of the survey area. The closest record was of a European eel located 210 m north. The pond on site is considered to provide sub-optimal habitat for this species, due to its small size. Furthermore, the desk study records are associated with the nearby River Thames. Therefore, these species are not a notable consideration in relation to the proposed development.

Goldfish were noted in the pond during the field survey. It is understood the pond is to be removed as part of the proposed development. Therefore, a precautionary recommendation regarding the draining of the pond has been made within Section 7.3.

Invertebrates
The desk study provided seventy records of stag beetle within a 1 km radius of the survey area, the closest of which was located 110 m north-west. A well-rotted tree stump may provide suitable habitat for stag beetle

within the survey area. It is unknown if this tree stump will be removed as part of the proposed work. Therefore, a precautionary recommendation is provided in Section 7.3.

The desk study also provided records of several species of notable moth and butterfly species within 1 km. Although any invertebrate species present within the site may be temporarily displaced during the construction phase of the proposed development, taking into account the presence of alternative habitat within the local vicinity and providing new habitats are created as part of the development, no long term impact on terrestrial invertebrates is anticipated. A recommendation regarding general habitat enhancement, which would increase the value of the site for invertebrates, is made in Section 7.2.

Plants
The desk study provided records of a number of notable plant species within a 1 km radius of the survey area. None of these species were recorded on site during the field survey, which was undertaken during a suitable time of year for botanical assessment. Due to the highly managed nature of the habitats on site it is considered unlikely that notable plant species would be present within the survey area. Therefore, plants are not a notable consideration in relation to the proposed development.

Other Species
The following protected species are not considered to be material considerations due to the lack of desk study records and absence of suitable habitats within the development site and its surroundings: dormouse *Muscardinus avellanarius*, white-clawed crayfish *Austropotamobius pallipes*, stag beetle *Lucanus cervus*, otter *Lutra lutra*, red squirrel *Sciurus vulgaris*, harvest mouse *Micromys minutus*, pine marten *Martes martes*, polecat *Mustela putorius* and brown hare *Lepus europaeus*.

Summary
Species considered to be of relevance to the proposed development are summarised in Table 6.2.

Species / Species Group	Species of Principal Importance?	Summary of Potential Impacts
Bats	#	Loss of suitable habitat, direct harm or injury, fragmentation, lighting.
Hedgehog	✓	Loss of suitable habitat, direct harm or injury.
Common amphibians	#	Loss of suitable habitat, direct harm or injury.
Birds	#	Loss of suitable habitat, direct harm or injury.
Fish	#	Loss of suitable habitat, direct harm or injury.
Stag beetle	✓	Loss of suitable habitat, direct harm or injury.
#: Dependent on species.		

Table 6.2: Summary of Potential Impacts on Notable Species

6.5 INVASIVE PLANT SPECIES

The desk study provided records of seventeen species of invasive plants within a 1 km radius of the survey area. The majority of these species were not recorded on site during the field survey. However, foxglove-tree, cherry laurel and false-acacia were all noted on site. These species are considered invasive in London under the London Invasive Species Initiative. A precautionary recommendation regarding the removal of these species is provided in Section 7.4.

7. RECOMMENDATIONS

All recommendations provided in this section are based on Middlemarch Environmental Ltd's current understanding of the site proposals, correct at the time the report was compiled. Should the proposals alter, the conclusions and recommendations made in the report should be reviewed to ensure that they remain appropriate.

The ecological mitigation hierarchy should be applied when considering development which may have a significant effect on biodiversity. The ecological mitigation hierarchy, as set out in the National Planning Policy Framework (NPPF), and the National Planning Practice Guidance (NPPG) should follow these principles:

- **Avoidance** – development should be designed to avoid significant harm to valuable wildlife habitats and species.
- **Mitigation** – where significant harm cannot be wholly or partially avoided, it should be minimised by design or through the use of effective mitigation measures.
- **Compensation** – where, despite whatever mitigation would be effective, there would still be significant residual harm, as a last resort, compensation should be used to provide an equivalent value of biodiversity.

7.1 NATURE CONSERVATION SITES

There are no recommendations made regarding nature conservation sites.

7.2 HABITATS

The following recommendations are made regarding the habitats present on site:

R1 **Habitat Loss and Enhancement:** In accordance with the provision of Chapter 11 of the National Planning Policy Framework (Conserving and Enhancing the Natural Environment) and Local Planning Policy, biodiversity enhancement measures should be incorporated into the landscaping scheme of any proposed works to maximise the ecological value of the site. This will involve, for example:

- Planting of habitats which will be of value to wildlife, such as:
  - native seed/fruit bearing species to provide foraging habitat for mammals and birds;
  - nectar-rich species to attract bees, butterflies and moths;
  - species which attract night flying insects which will be of value to foraging bats, for example: evening primrose *Oenothera biennis*, goldenrod *Solidago virgaurea*, honeysuckle *Lonicera periclymenum* and fleabane *Pulicaria dysenterica*.
- Provision of nesting/roosting habitat, such as installation of nest boxes for species such as house sparrow, dense scrub or native thicket for species such as song thrush, and bat boxes for species such as pipistrelle.
- Inclusion of hedgehog passes under any fence lines to allow connectivity between the site and the wider area.
- Creation of hibernacula and deadwood habitat for herpetofauna and invertebrate species.
- Creation/maintenance of wildlife corridors around the site to ensure that species can continue to move through the site post-development.

R2 **Trees:** Any trees on site, or overhanging the site, which are to be retained as a part of any proposed works should be protected in accordance with British Standard 5837: 2012 "Trees in relation to design, demolition and construction - recommendations". Protection should be installed on site prior to the commencement of any works on site. Any trees that are removed should be mitigated within the landscaping design, through the inclusion of appropriate native or wildlife attracting species of adequate size.

7.3 PROTECTED / NOTABLE SPECIES

To ensure compliance with wildlife legislation and relevant planning policy, the following recommendations are made:

R3 **Roosting and Foraging Bats:** The recommendations within the Preliminary Bat Roost Assessment detailed in Middlemarch Environmental Report RT-MME-128041-02 should be adhered to.

R4 **Terrestrial Mammals (including Hedgehog):** Any excavations that need to be left overnight should be covered or fitted with mammal ramps to ensure that any animals that enter can safely escape. Any open pipework with an outside diameter of greater than 120 mm must be covered at the end of each work day to prevent animals entering/becoming trapped.

R5 **Common Amphibians and Fish:** The pond should be drained when amphibians are active (generally March-September), but outside the key breeding periods of spring under the supervision of a suitably qualified ecologist to ensure no harm to any common amphibians or fish that may be present. Any amphibians found should be moved carefully to an undisturbed location in the near vicinity whilst any fish should be re-located to a suitable waterbody. Excavation of plants, debris or rubble from the pond should be undertaken sensitively and stored at the pond edge for a period of 24 hours to allow any amphibians to disperse.

R6 **Nesting Birds:** Vegetation and building clearance should be undertaken outside the nesting bird season. The nesting bird season is weather dependent but generally extends between March and September inclusive (peak period March-August). If this is not possible then any vegetation/ buildings to be removed or disturbed should be checked by an experienced ecologist for nesting birds immediately prior to works commencing. If birds are found to be nesting any works which may affect them would have to be delayed until the young have fledged and the nest has been abandoned naturally, for example via the implementation of an appropriate buffer zone (species dependent) around the nest in which no disturbance is permitted until the nest is no longer in use.

R7 **Stag Beetle:** The clearance of the rotten tree stump should be undertaken under the supervision of an experienced ecologist. Dead wood considered valuable should be retained on site outside the construction area and should any individual stag beetles or larvae be discovered during the works they should be moved to a safe place.

7.4 INVASIVE PLANT SPECIES

The following recommendation is made regarding invasive plant species:

R9 **Cherry Laurel, False Acacia, Foxglove-Tree and Snowberry:** The works must not cause cherry laurel, false acacia, foxglove-tree and snowberry to spread into the wild. The plants must either remain in situ or be removed with care and disposed of in an appropriate manner.

8. DRAWINGS

Drawing C128041-01-01 – Phase 1 Habitat Map

Legend

- Scattered broad-leaved tree
- Scattered coniferous tree
- Scattered scrub
- Species-poor intact hedgerow
- A — Amenity grassland
- Bare ground
- Building
- Hardstanding
- Introduced shrub
- Other habitat
- Standing water
- Study area
- Target note
  1. Cherry laurel
  2. Shelter
  3. Shed
  4. Stone shrine with dense ivy cover
  5. Ivy cover on boundary
  6. Ivy cover on canopy roof
  7. Raised planter
  8. False Acacia
  9. Tree with bat roost potential
  10. Well rotted tree stump
  11. Blue tit nesting within pipe holes
  12. Snowberry

N

Project	Orione Care, Lower Teddington Road, Hampton Wick
Drawing	Phase 1 Habitat Map
Client	PRC Architecture and Planning
Drawing Number	C128041-01-01-RevA
Revision	Rev A
Scale @ A4	1:750
Date	September 2018
Approved By	WR
Drawn By	RP

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E:admin@middlemarch-environmental.com

C128041-01-01-RevA

9. PHOTOGRAPHS

Plate 9.1: Amenity grassland.

Plate 9.2: Orione Care Home.

Plate 9.3: Hedgerow.

Plate 9.4: Introduced shrub.

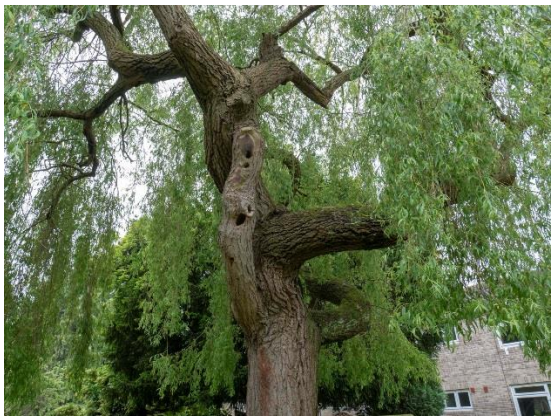


Plate 9.5: Scattered tree with woodpecker holes.

Plate 9.6: Standing water.

REFERENCES AND BIBLIOGRAPHY

British Standards Institution (2013). *British Standard 42020: 2013. Biodiversity – Code of practice for planning and development.* British Standards Institution, London.

British Standards Institution. (2012). *British Standard 5837:2012, Trees in relation to design, demolition and construction – recommendations.* British Standards Institution, London.

Department for Communities and Local Government (2012). *National Planning Policy Framework*. Available: http://www.communities.gov.uk/planningandbuilding/planningsystem/planningpolicy/planningpolicyframework/

Institute of Environmental Assessment. (1995). *Guidelines for Baseline Ecological Assessment, Institute of Environmental Assessment*. E&FN Spon, An Imprint of Chapman and Hall. London.

Joint Nature Conservation Committee (2010). *Handbook for Phase 1 Habitat Survey: A technique for environmental audit (reprint).* Joint Nature Conservation Committee, Peterborough.

Joint Nature Conservation Committee (2012). *UK Post-2010 Biodiversity Framework*. Available: http://jncc.defra.gov.uk/pdf/UK_Post2010_Bio-Fwork.pdf

Middlemarch Environmental Ltd (2018). *19 – 29 Lower Teddington Road, Hampton – Preliminary Bat Roost Assessment (RT-MME-128041-02)*. Middlemarch Environmental Ltd, Coventry.

APPENDICES

APPENDIX 1: Summary of Statutory Nature Conservation Sites

APPENDIX 2: Overview of Relevant Species Specific Legislation

APPENDIX 1

Summary of Statutory Nature Conservation Sites

Site Check Report Report generated on Tue Jun 12 2018
You selected the location: Centroid Grid Ref: TQ175697
The following features have been found in your search area:

Special Areas of Conservation (England)

Name
WIMBLEDON COMMON
Reference
UK0030301
Hectares
351.38
Hyperlink
http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?eucode=UK0030301
Name
RICHMOND PARK
Reference
UK0030246
Hectares
846.43
Hyperlink
http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?eucode=UK0030246

Ramsar Sites (England)

No Features found

Proposed Ramsar Sites (England)

No Features found

Possible Special Areas of Conservation (England)

No Features found

Special Protection Areas (England)

No Features found

Possible Special Protection Areas (England)

No Features found

Special Areas of Conservation (Marine Components GB)

No Features found

Special Protection Areas (Marine Components GB)

No Features found

Site Check Report Report generated on Tue Jun 12 2018
You selected the location: Centroid Grid Ref: TQ175697
The following features have been found in your search area:

Local Nature Reserves (England)

Reference
1009448
Name
HAM COMMON, RICHMOND, LONDON
Hectares
40.27
Hyperlink
http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1009448
Reference
1008934
Name
HAM LANDS
Hectares
60.01
Hyperlink
http://www.lnr.naturalengland.org.uk/special/lnr/lnr_details.asp?themeid=1008934

National Nature Reserves (England)

Name
RICHMOND PARK
Reference
1007634
Hectares
846.43
Hyperlink
https://www.gov.uk/government/publications/greater-londons-national-nature-reserves/londons-national-nature-reserves#richmond-park
SHAPE_Length
16307.85642

SHAPE_Area
8464322.927477
Sites of Special Scientific Interest (England)
Name
Bushy Park and Home Park SSSI
Reference
1477753
Natural England Contact
REBECCA HART
Natural England Phone Number
0845 600 3078
Hectares
540.39
Citation
2000738
Hyperlink
http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s2000738
Name
Richmond Park SSSI
Reference
1000342
Natural England Contact
REBECCA HART
Natural England Phone Number
0845 600 3078
Hectares
846.43
Citation
1002388
Hyperlink
http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1002388
Ancient Woodland (England)
No Features found
Marine Conservation Zones (England)
No Features found
Site Check Report Report generated on Tue Jun 12 2018
You selected the location: Centroid Grid Ref: TQ175697
The following features have been found in your search area:
SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)
1. DOES PLANNING PROPOSAL FALL INTO ONE OR MORE OF THE CATEGORIES BELOW?
2. IF YES, CHECK THE CORRESPONDING DESCRIPTION(S) BELOW. LPA SHOULD CONSULT NATURAL ENGLAND ON LIKELY RISKS FROM THE FOLLOWING:
All Planning Applications
Infrastructure
Pipelines, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals.
Wind & Solar Energy
Minerals, Oil & Gas
Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.
Rural Non Residential
Residential
Rural Residential
Air Pollution
Any development that could cause AIR POLLUTION (incl: industrial/commercial processes, livestock & poultry units, slurry lagoons/manure stores).
Combustion
All general combustion processes. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.
Waste
Mechanical and biological waste treatment, inert landfill, non-hazardous landfill, hazardous landfill, household civic amenity recycling facilities construction, demolition and excavation waste, other waste management.
Composting

Any composting proposal. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.

Discharges

Any discharge of water or liquid waste of more than 20m³/day to ground (ie to seep away) or to surface water, such as a beck or stream (NB This does not include discharges to mains sewer which are unlikely to pose a risk at this location).

Water Supply

Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m² or more.

Notes

GUIDANCE - How to use the Impact Risk Zones

/Metadata_for_magic/SSSI IRZ User Guidance MAGIC.pdf

Ancient Woodland (England)

No Features found

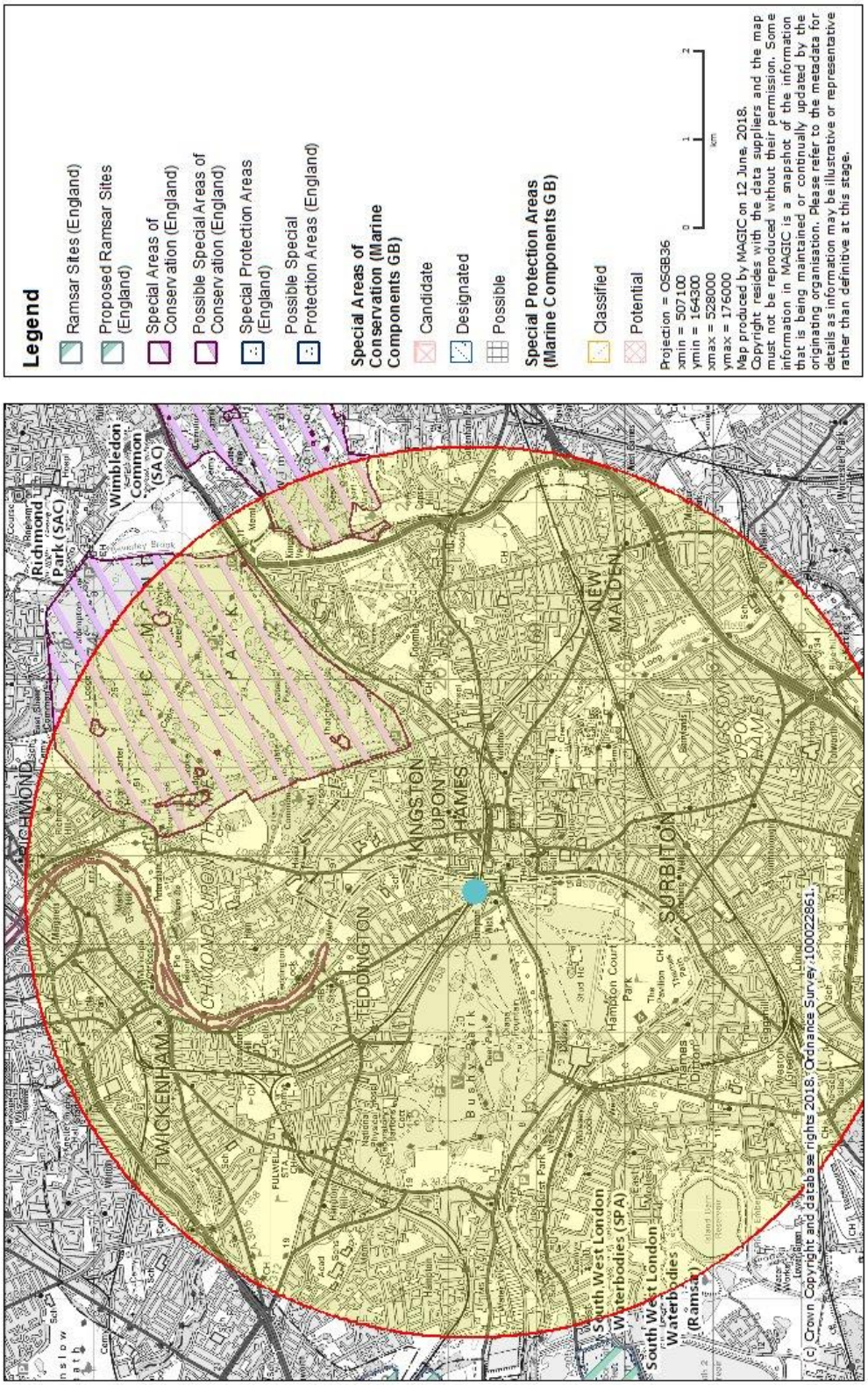
Local Nature Reserves (England)

No Features found

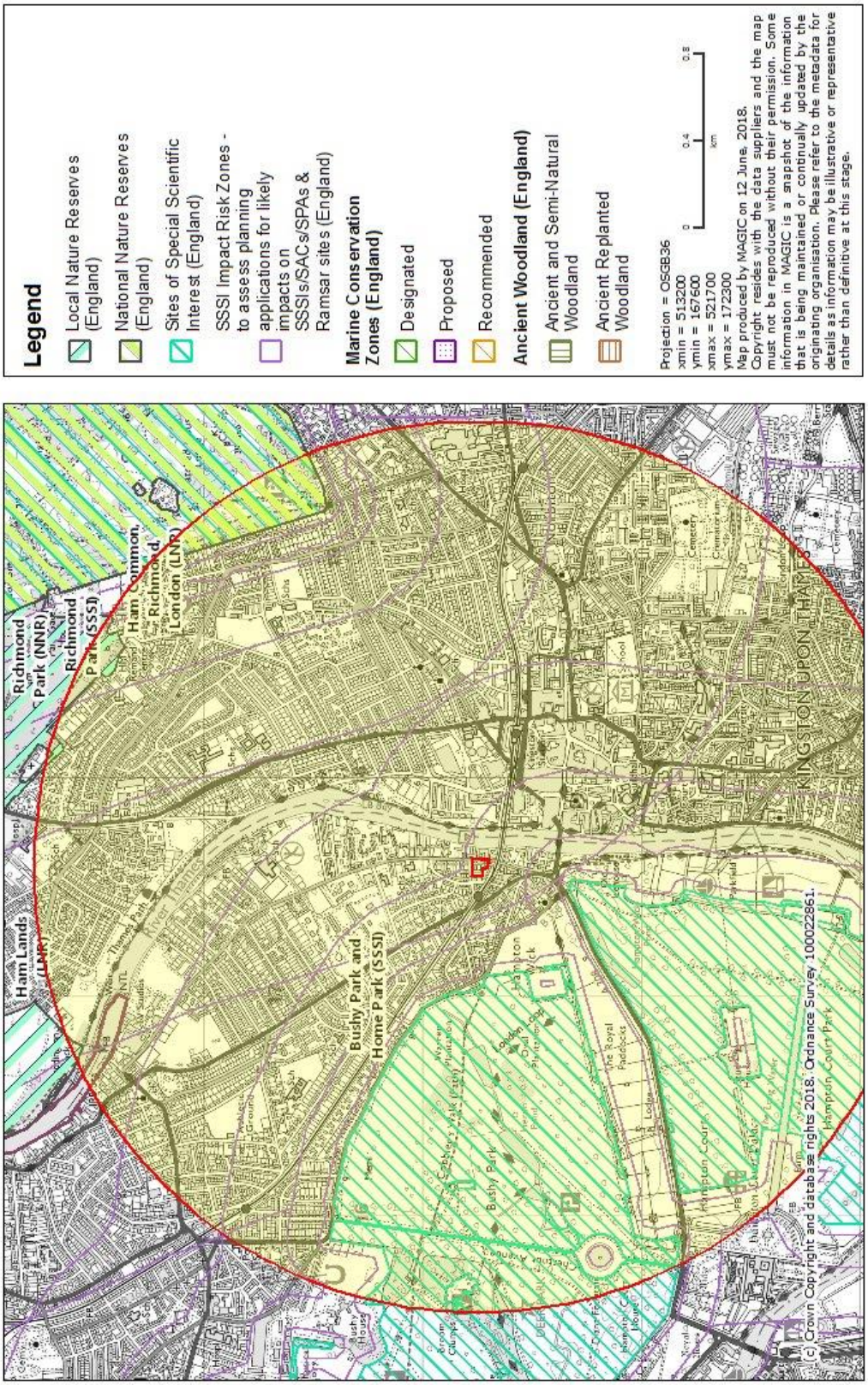
National Nature Reserves (England)

No Features found

MAGIC 19-29 Lower Teddington Road - European Sites



MAGIC **19-29 Lower Teddington Road - UK Sites**



APPENDIX 2

Overview of Relevant Species Specific Legislation

Bats
Bats and the places they use for shelter or protection (i.e. roosts) receive European protection under The Conservation of Habitats and Species Regulations 2017 (Habitats Regulations 2017). They receive further legal protection under the Wildlife and Countryside Act (WCA) 1981, as amended. This protection means that bats, and the places they use for shelter or protection, are capable of being a material consideration in the planning process.

Regulation 41 of the Habitats Regulations 2017, states that a person commits an offence if they:

- deliberately capture, injure or kill a bat;
- deliberately disturb bats; or
- damage or destroy a bat roost (breeding site or resting place).

Disturbance of animals includes in particular any disturbance which is likely to impair their ability to survive, to breed or reproduce, or to rear or nurture their young, or in the case of animals of a hibernating or migratory species, to hibernate or migrate; or to affect significantly the local distribution or abundance of the species to which they belong.

It is an offence under the Habitats Regulations 2017 for any person to have in his possession or control, to transport, to sell or exchange or to offer for sale, any live or dead bats, part of a bat or anything derived from bats, which has been unlawfully taken from the wild.

Whilst broadly similar to the above legislation, the WCA 1981 (as amended) differs in the following ways:

- Section 9(1) of the WCA makes it an offence to *intentionally* kill, injure or take any protected species.
- Section 9(4)(a) of the WCA makes it an offence to *intentionally or recklessly** damage or destroy, *or obstruct access to*, any structure or place which a protected species uses for shelter or protection.
- Section 9(4)(b) of the WCA makes it an offence to *intentionally or recklessly** disturb any protected species *while it is occupying a structure or place which it uses for shelter or protection*.

*Reckless offences were added by the Countryside and Rights of Way (CRoW) Act 2000.

As bats re-use the same roosts (breeding site or resting place) after periods of vacancy, legal opinion is that roosts are protected whether or not bats are present.

The following bat species are Species of Principal Importance for Nature Conservation in England: Barbastelle Bat *Barbastella barbastellus*, Bechstein's Bat *Myotis bechsteinii*, Noctule Bat *Nyctalus noctula*, Soprano Pipistrelle *Pipistrellus pygmaeus*, Brown Long-eared Bat *Plecotus auritus*, Greater Horseshoe Bat *Rhinolophus ferrumequinum* and Lesser Horseshoe Bat *Rhinolophus hipposideros*.

All bat species which occur within the county are priority species on the London Local BAP.

The reader should refer to the original legislation for the definitive interpretation.

Hedgehog
Hedgehogs receive some protection under Schedule 6 of the Wildlife and Countryside Act 1981 (as amended); this section of the Act lists animals which may not be killed or taken by certain methods, namely traps and nets, poisons, automatic weapons, electrical devices, smokes/gases and various others. Humane trapping for research purposes requires a licence.

Hedgehogs are a Species of Principal Importance for Nature Conservation in England and are thus capable of being material considerations in the planning process.

Common Amphibians
Common frogs, common toad, smooth newt and palmate newt are protected in Britain under Schedule 5 of the Wildlife and Countryside Act (1981, as amended) with respect to sale only. They are also listed under Annex III of the Bern Convention 1979. Any exploitation of wild fauna specified in Appendix III shall be regulated in order to keep the populations out of danger. The convention seeks to prohibit the use of all

indiscriminate means of capture and killing and the use of all means capable of causing local disappearance of, or serious disturbance to, populations of a species.

Common toad is listed as a Species of Principal Importance for Nature Conservation in England. All amphibian species are included on the London Local BAP.

Birds
The Conservation of Habitats and Species Regulations 2017 places a duty on public bodies to take measures to preserve, maintain and re-establish habitat for wild birds.

Nesting and nest building birds are protected under the Wildlife and Countryside Act WCA 1981 (as amended).

Subject to the provisions of the act, if any person intentionally:

- kills, injures or takes any wild bird;
- takes, damages or destroys the nest of any wild bird while that nest is in use or being built; or
- takes or destroys an egg of any wild bird, he shall be guilty of an offence.

Some species (listed in Schedule 1 of the WCA) are protected by special penalties. Subject to the provisions of the act, if any person intentionally or recklessly**:**

- disturbs any wild bird included in Schedule 1 while it is building a nest or is in, on or near a nest containing eggs or young; or
- disturbs dependent young of such a bird, he shall be guilty of an offence.

Several bird species are Species of Principal Importance for Nature Conservation in England, making them capable of being material considerations in the planning process.

Cherry laurel, foxglove-tree and false-acacia
A list of invasive non-native species of concern in Greater London has been compiled as a part of the London Invasive Species Initiative (LISI). This list aims to provide direction and a means of prioritisation for land managers by grouping species into different management categories, described as follows:

- **Category 1**: Species not currently present in London but present nearby or of concern because of the high risk of negative impacts should they arrive.
- **Category 2**: Species of high impact or concern present at specific sites that require attention (control, management, eradication etc).
- **Category 3**: Species of high impact or concern which are widespread in London and require concerted, coordinated and extensive action to control/eradicate.
- **Category 4**: Species which are widespread for which eradication is not feasible but where avoiding spread to other sites may be required.
- **Category 5**: Species for which insufficient data or evidence was available from those present to be able to priorities
- **Category 6**: Species that were not currently considered to pose a threat or have the potential to cause problems in London.

The initiative works to coordinate action in line with The Invasive Non-Native Species (INNS) Framework Strategy for Great Britain, whilst also delivering benefits under the Water Framework Directive and national biodiversity objectives, including the London Biodiversity Action Plan.

Cherry laurel, false-acacia and foxglove-tree are listed as category 3, 4 and 5, respectively.