

TFL_PSF_9131 SITE INVESTIGATIONS: SMALL SITES INITIATIVE LAND AT CHRISTCHURCH ROAD AND BRIXTON HILL, LAMBETH, SW2 4AP

Site Ref: 901

Ecological Assessment

OCTOBER 2017

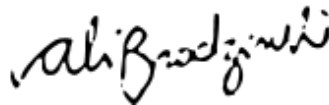
Incorporating

EC HARRIS
BUILT ASSET
CONSULTANCY



Land at Christchurch Road and Brixton Hill, Lambeth, SW2 4AP Ecological Assessment

Author Aline Brodzinski



Checker Brandon Murray



Approver Martina Girvan



Report No 202-UA009686-UE21R-02

Date OCTOBER 2017

VERSION CONTROL

Version	Date	Author	Changes
01	July 2017	Aline Brodzinski	1 st Issue
02	October 2017	Aline Brodzinski	Final Issue

This report dated 02 October 2017 has been prepared for Transport for London (TfL) (the "Client") in accordance with the terms and conditions of appointment dated 02 May 2017 (the "Appointment") between the Client and Arcadis Consulting (UK) Limited ("Arcadis") for the purposes specified in the Appointment. For avoidance of doubt, no other person(s) may use or rely upon this report or its contents, and Arcadis accepts no responsibility for any such use or reliance thereon by any other third party

CONTENTS

- 1 INTRODUCTION 1
 - 1.1 Background 1
 - 1.2 Site Location and Setting..... 1
- 2 METHODOLOGY 2
 - 2.1 Desk Study 2
 - 2.2 Field Survey 2
 - 2.3 Limitations and Expectations 2
- 3 SURVEY RESULTS..... 4
 - 3.1 Reporting Outline 4
 - 3.2 Desk Study Results 4
 - 3.3 Site Overview 4
 - 3.4 Habitats 4
 - 3.5 Protected and Notable Species 5
 - 3.6 Invasive Species 5
- 4 POTENTIAL ECOLOGICAL CONSTRAINTS 6
 - 4.1 Habitats/Invasive Species..... 6
 - 4.2 Protected and Notable Species 6
- 5 LEGISLATION AND KEY POLICY COMPLIANCE..... 7
 - 5.1 Relevant Legislation 7
 - 5.2 Relevant Policy 7
 - 5.3 Potential for Enhancement Within a Development 7
- 6 SUMMARY OF ECOLOGICAL CONSTRAINTS AND MITIGATION REQUIRED 8
- 7 CONCLUSIONS 10
- SITE PHOTOGRAPHS 11

APPENDICES

APPENDIX A

Desk Study Review

APPENDIX B

Bat Habitat Suitability and London Population Status

APPENDIX C

Selected Legislation, Nature Conservation Status and Policy

1 INTRODUCTION

1.1 Background

Arcadis Consulting (UK) Limited (Arcadis) was commissioned by Transport for London (TfL) to undertake an ecological assessment to support the feasibility for potential development at Land at Christchurch Road & Brixton Hill, Lambeth, SW2 4AP hereafter referred to as “the Site”.

TfL is aiming to divest a number of small sites to enable prospective regeneration. The objective of the Small Sites Initiative is to provide robust and pragmatic advice that sensibly de-risks each of the sites such that unreasonable “abnormal” development costs are not included by developers.

The objective of this report is to identify potential ecological development constraints due to current ecological conditions on Site based on the findings of a desk study and ecological constraints survey. The report outlines the ecological constraints associated with the Site with regards to biodiversity legislation and policy and provides advice on mitigation and enhancement opportunities, including requirement for any further assessment or licensing, if necessary.

1.2 Site Location and Setting

The Site is located south of the A205, in the London Borough of Lambeth. The Site is centred at the central grid reference of 530503, 173418 and around the postcode of SW2 4AP.

It is approximately 0.32ha in area and is currently comprised of dense scrub, tall ruderals and managed and unmanaged grassland with scattered broadleaved trees.

The immediate surrounding is largely residential.

The Site boundary for assessment is presented in Figure 2.

2 METHODOLOGY

2.1 Desk Study

Desk-based ecological information was collated from multiple sources.

The Multi-Agency Geographic Information for the Countryside (MAGIC) website¹ and other Natural England and Forestry Commission datasets were used to search for any statutory or non-statutory designated sites of nature conservation importance within a specific radius of the Site boundary, as follows:

- Special Protection Areas (SPAs) or Ramsar Sites designated for their bird interests (5km radius);
- Special Areas of Conservation (SACs) (5km radius);
- Sites of Special Scientific Interest (SSSIs) and all other statutory designated sites (2km radius);
- National Nature Reserves (NNR);
- Local Nature Reserves (LNR); and
- Woodlands registered on the Ancient Woodland Inventory (AWI).

Records of protected or otherwise notable species of conservation concern (that the Site has the potential to support) located 1km of the Site boundary were obtained from the following sources:

- Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006) Species of Principle Importance in England²;
- National Biodiversity Network Atlas³;
- London Biodiversity Action Plan⁴; and
- Local Biodiversity Action Plan.

In addition, the Lambeth Council website⁵ was reviewed for citations of any non-statutory designated Sites located within a 1km radius of the Site, including Local Wildlife Sites (LWS) and Sites of Importance for Nature Conservation (SINCs).

SINCs fall into three sub designations:

- Sites of Metropolitan Importance for Nature Conservation (SMINCs);
- Sites of Borough Importance for Nature Conservation (SBINCs) Grades I and II; and
- Sites of Local Importance for Nature Conservation (SLINCs).

Waterbodies located within 250m of the Site identified from OS mapping were assessed with regards to their connectivity to the Site and their potential suitability for supporting a population of breeding great crested newts (*Triturus cristatus*).

2.2 Field Survey

This survey was conducted by Aline Brodzinski in May 2017. Habitats were classified according to their JNCC Phase 1 habitat categories (JNCC 2010)⁶ and plants named after Stace (1997)⁷ and are presented on Figure 2.

2.3 Limitations and Expectations

This report has been prepared for TfL in accordance with the terms and conditions of appointment. Arcadis cannot accept any responsibility for any use of or reliance on the contents of this report by any third party. The copyright of this document, including the electronic format shall remain the property of Arcadis.

¹ MAGIC (2002). MAGIC Map Search. [online] Available at <http://magic.defra.gov.uk> [Accessed May 2017]

² NERC Act (2006) Section 41 Species <http://www.nhm.ac.uk/our-science/data/uk-species/checklists/NHMSYS0020515439/index.html>

³ National Biodiversity Network <https://nbn.org.uk/> [Accessed May 2017]

⁴ London BAP (Reviewed 2007) <http://www.gigl.org.uk/london-bap-priority-species/> [Accessed May 2017]

⁵ <http://maps.lambeth.gov.uk> [accessed June 2017]

⁶ Joint Nature Conservation Committee (2010), *Handbook for Phase 1 habitat survey - a technique for environmental audit*

⁷ Stace, C. (1997). *New Flora of the British Isles Second Edition*. Cambridge University Press

This report has been compiled from a number of sources, which Arcadis believes to be trustworthy. However, Arcadis is unable to guarantee the accuracy of information provided by others. The report is based on information available at the time. Consequently, there is a potential for further information to become available, which may change this report's conclusion and for which Arcadis cannot be responsible.

3 SURVEY RESULTS

3.1 Reporting Outline

The results of the desk study and ecological constraints survey are described below, with sites or features of particular nature conservation interest detailed as appropriate.

Supporting information to be read in conjunction with the results and subsequent discussion are as follows:

- Figure 1: Designated Sites within 2km of the Site centre;
- Figure 2: Extended Phase 1 Habitat Map (with dedicated survey results and target notes);
- Table 1: Ecological Constraints and Mitigation Summary Table; and
- Table 2: Site photographs.

Only information potentially relevant to the development of the Sites is included within the report other information is appended as follows:

- Appendix A: Desk Study Results;
- Appendix B: Bat Habitat Suitability Assessment and London Bat Population Status; and
- Appendix C: Selected Legislation, Nature Conservation Status and Policy.

3.2 Desk Study Results

Only desk study results that are potentially relevant to the Site are presented within the report. Detailed status and protections conferred by the relevant designations below are presented in Appendix A and Figure 1. The relevant Site information is summarised below.

There is negligible potential for significant impacts to any designated sites from development of this Site:

- There were records of hedgehog (*Erinaceus europaeus*) within 1km of the Site which is a Section 41 and London biodiversity Action Plan (BAP) species;
- There were records of stag beetle (*Lucanus cervus*) within 1km of the Site which is a London BAP species;
- There were records of fox (*Vulpes vulpes*) and grey squirrel (*Sciurus carolinensis*) within 1km of the Site which although not protected for conservation value are protected from inhumane killing or injury by the Wild Mammal Act (1996)⁸; and
- There were no relevant records of protected or notable reptiles, amphibians or birds or of badger.

3.3 Site Overview

The Site supported a limited range of habitats and was comprised of dense scrub, managed and unmanaged amenity grassland, areas of tall ruderals with some scattered trees. The habitats on Site were generally of poor quality due to the lack of positive management, fly tipping and potential illegal occupation by vagrants. However, these habitats are valuable in terms of general green infrastructure, likely performing important ecosystem services (such as water quality and volume attenuation, air quality attenuation etc.) in addition to the ecological value they have.

3.4 Habitats

Phase 1 habitat categories and descriptions of these habitats are presented below and the locations of these habitats are presented in Figure 2.

- **Dense scrub and introduced shrub:** The majority of the Site was covered by dense scrub and unmanaged amenity grassland. The scrub was predominantly bramble (*Rubus fruticosus*

⁸ Anon The Wild Mammal Act (1996). HMSP

agg.) with a ground flora dominated by ivy (*Hedera helix*) and nettle (*Urtica dioica*). Other species present included: green alkanet (*Pentaglottis sempervirens*) which is listed on the London Invasive Species Initiative (LISI) and bamboo (*Phyllostachys* sp.).

- **Managed and unmanaged amenity grassland:** The grassed areas were dominated by cock's-foot grass (*Dactylis glomerata*), false oat-grass (*Arrhenatherum elatius*), cup-leaved geranium (*Pelargonium* sp.), dandelion (*Taraxacum* sp.), lesser stitchwort (*Stellaria graminea*), red fescue (*Festuca rubra*); daisy (*Bellis perennis*); annual meadow grass (*Poa annua*); spreading hedge parsley (*Torilis arvensis*); creeping buttercup (*Ranunculus repens*); cleavers (*Galium aparine*); spear thistle (*Cirsium vulgare*); broadleaved dock (*Rumex obtusifolius*); ribwort plantain (*Plantago lanceolata*) and garlic mustard (*Alliaria petiolata*).
- **Individual scattered trees:** Sycamore (*Acer pseudoplatanus*), common lime (*Tilia x europaea*) false acacia (*Robinia pseudoacacia*) and holm oak (*Quercus ilex*) both on LISI.

3.5 Protected and Notable Species

The following protected or notable species have the potential to be present on / adjacent to the Site:

- **Nesting birds:** There is potential for nesting birds to be utilising the trees and scrub on the Site, including species listed on the London BAP such as house sparrow (*Passer domesticus*). House sparrow, blackbird (*Turdus merula*) and common wood pigeon (*Columba palumbus*) were observed on Site during the survey.
- **Bats:** Not all of the trees on Site were fully inspected for bat roosting potential (access was limited due to the dense scrub present). None of the trees on Site which were inspected had any evidence of potential roost features (PRF's). There is potential for bats to forage within the Site, however the Site is relatively isolated and not directly connected to larger areas suitable for foraging.
- **Stag beetle:** There is potential for stag beetle to be present on the Site. Piles of deadwood, fallen tree and waste suitable for this species were present on the Site and with records from within 500m from 2015 were returned by NBN Atlas.
- **Other mammals:** No mammal burrows were observed on the Site, however there is potential that fox earths may be present within the inaccessible dense scrub area. The presence of fox earths within this area will need to be confirmed once some of the dense vegetation is cleared from the Site. No badger signs or clear paths were observed suggesting that this species is not present on the Site. There is potential for grey squirrels to be breeding within the vegetation on Site.
- **Reptiles:** Habitat suitable for reptiles, such as unmanaged amenity grassland, dense scrub, piles of wood were present on Site.

No ponds were present within 500m of the Site or with connectivity to the Site, so the presence of great crested newts is extremely unlikely. Overall, within the Site, there was limited potential for protected or notable species.

3.6 Invasive Species

On Site, no invasive species listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) were recorded during the survey. However, species listed on the LISI were recorded on Site, including false acacia, holm oak, and green alkanet.

4 POTENTIAL ECOLOGICAL CONSTRAINTS

The potential ecological constraints and associated further works including mitigation is briefly presented below, further detail is presented in Table 1.

4.1 Habitats/Invasive Species

The habitats on Site are likely to be considered as 'local' or 'less than local' value according to the CIEEMs *Guidelines for Ecological Impact Assessment* (CIEEM 2016)⁹. However, these habitats are valuable green infrastructure, likely performing important ecosystem services (such as drainage, air quality etc.).

There will be some ecological benefit from the removal of non-native species listed on LISI. For any loss of trees, trees should be re-provisioned on the Site, of a suitable species, preferably native species of local origin appropriate to the sylvan culture of the area. An ecologist and arboriculturist should contribute to the evolution of the development and landscaping design to minimise biodiversity loss and to maximise the replacement green infrastructure with regards to biodiversity.

4.2 Protected and Notable Species

The following notable or protected species have the potential to be impacted by the works:

- **Nesting birds:** it is likely that nesting birds will utilise the Site, clearance of vegetation should be avoided during the nesting bird season (March to August inclusive) and replacement nesting opportunities should be provided within any development;
- **Bats:** when further access is available, trees to be removed should be inspected from the ground to assess their potential to support roosting bats. Should roosting potential be found in addition to further survey, replacement or additional roosts should be provided within the development. Linear green corridors should be maintained within any development if possible;
- **Stag beetle:** dead wood should be removed under site supervision and should stag beetle be found, a dead wood loggery should be provided on Site; and
- **Reptiles:** suitable habitat and wood piles are present on Site. Site clearance should be undertaken under ecological supervision, avoiding disturbance during hibernation season between April and mid-October.

While not protected or notable for their conservation status the following species may be present that are protected against inhumane injury under the Wild Mammal Act (1996):

- **Fox:** a watching brief should be undertaken for vegetation clearance to ensure that any fox earths are excluded and destroyed humanely; and
- **Grey squirrel:** trees should be inspected from the ground for squirrel dreys before being excluded and humanely destroyed if present.

⁹ CIEEM (2016) Guidelines for Ecological Impact Assessment in the UK and Ireland Terrestrial, Freshwater and Coastal.

5 LEGISLATION AND KEY POLICY COMPLIANCE

Potentially relevant Legislation and Policy are presented in Appendix CE and further detail with regards to surveys and mitigation required are presented in Table 1.

5.1 Relevant Legislation

Development of the Site will require surveys and or mitigation to fulfil legislative requirements for the following protected species:

- WCA, as amended 1981, and the Conservation of Habitats and Species Regulations (2010, as amended)¹⁰ for bats: When access is possible, and the potential impact on trees is known, trees should be assessed for their potential to support roosting bats.
- WCA, as amended 1981, for nesting birds: Clearance works will need to be timed to avoid the nesting bird season (March to August inclusive) or supervised to prevent impacts to nesting birds.
- The Mammal Act (1996) for fox and squirrel: Construction works will need to ensure that there are no inhumane impacts to fox or squirrel if present.
- WCA, as amended 1981, for reptiles: Site clearance will need supervision to avoid injuring or killing. Works will need to be timed to avoid the hibernation season between mid-October and April.

Full details of subsequent works required are included within Table.

5.2 Relevant Policy

Elements of national, London and local policies and plans have the potential to be applicable to any development of the Site. These relate to:

- The safeguarding and replacement of trees to be lost to development;
- Creation and enhancement of biodiversity where possible: and
- Material consideration of S41 species; and
- Although no invasive species with legal obligations were recorded on the Site, there were plants recorded listed on LISI. While there is no legal requirement to remove or control these species (false acacia, holm oak and green alkanet) it would be appropriate and beneficial to remove them as part of a future development.

An ecology report addressing the required design and construction mitigation for any proposed development will be required in support of future planning.

5.3 Potential for Enhancement Within a Development

In addition to the recommended further works, enhancements should be considered within any development. For example, biodiversity roofs, rain gardens and other green infrastructure should be considered and the soft landscaping should be designed to maximise the biodiversity potential.

There are also opportunities for enhancements for London BAP species. Bird boxes for sparrows would be a valuable enhancement, along with bat roosting boxes.

¹⁰ Anon. The Conservation of Habitats and Species Regulations (2010) as amended. HMSO.

6 SUMMARY OF ECOLOGICAL CONSTRAINTS AND MITIGATION REQUIRED

Table 1 Ecological Constraints and Mitigation Summary Table

Key Issues	Legislation/Policy	Assumption	Further Survey / input?	Seasonal Timing	Mitigation Required	Seasonal Timing	Programme Delay Risk	Survey/ Mitigation Cost Estimate*	Risk Rating
Nesting Birds									
All green infrastructure listed below is suitable for nesting birds. These are likely to be removed for development. <ul style="list-style-type: none">Dense scrub;Broadleaved woodland;Individual trees.	WCA, 1981, as amended	Trees and scrub to be removed for development / site investigation.	No (but see mitigation recommendations)	N/A	Remove any remaining trees and scrub vegetation outside the core nesting bird season (March to August inclusive) or vegetation removal will need to be supervised by an ecological watching brief.	September to February remove trees and shrubs	If vegetation removal is required during the nesting bird season and nest are found by the ecological watching brief, a delay of 6 weeks is likely to be required until chicks have fledged.	Mitigation £500 - £1000 per day for ecological supervision / nesting bird check. Design and replacement of green infrastructure not costed	Low
Reptiles									
The Site is suitable for common reptiles, although given the location of the Site, if present they would be in low numbers. The species of reptile most commonly associated with habitats of this type and location is slow worm in the unmanaged grassland areas	WCA, 1981, as amended	Unmanaged grassland to be removed for development / site investigation.	No (but see mitigation recommendations)	N/A	Remove ground level vegetation outside the hibernation period which is mid-October to April inclusive under site supervision.	Remove ground level vegetation between April and mid-October inclusive	Clearance could be undertaken under supervision during the hibernation period but there is a risk of killing or injuring of reptiles.	Mitigation £500 - £1000 per day for ecological supervision	Low (if vegetation cleared outwith the hibernation period)
Green Infrastructure/ Trees									
Trees / groups as present and may be impacted by development: Large areas of scrub on Site which is likely to be removed prior to development or.	Potential TPOs although removal will be granted with planning permission national and local policy on no net loss	Trees and shrubs are likely to be removed or damaged due to development	Yes: BS 3857 2012 Tree survey	Removal of trees affected by bird nesting season see above.	Protection of trees to be retained and adjacent trees and replacement of trees and green infrastructure implemented via an Arboricultural Method Statement and Landscape Strategy	N/A	None	Survey: £1,900 Mitigation: £1,000 demarcation and bespoke Arboricultural Method Statement Design and replacement of green infrastructure not costed	Low
Roosting Bats (Trees)									
Trees could not be fully assessed for roosting bat potential assessments due to the dense scrub preventing access to the trees.	Schedule 5 of the of the WCA, 1981, as amended The Conservation of Habitats and Species Regulations 2010	Assumption is that some trees may be felled for development and that there may be lighting effects on bats if present.	Yes - Further assessment once access is possible and there is greater knowledge around the potential impacts on trees. There are subsequent potential for requirements for ground and climbed tree inspections or emergence / re-entry surveys if potential roost features (PRFs) are observed.	Ground based tree assessments can be conducted year round as can climbed tree inspections. Emergence / re-entry surveys can be conducted May to September inclusive (weather dependant).	If bat roosts are found, mitigation could include tree felling in winter, potentially requiring a European Protected Species Licence	European Protected Species Licence takes 30 working days from submission (post planning) Exclusion of any bat roosts may be restricted to November to February inclusive dependent upon the species and	6 months for the process from surveys to licence to exclusion (i.e. so that the tree can be removed).	Survey: Up to £4,500 Mitigation: Up to £3,500 for an EPS licence and site supervision Design and replacement of green infrastructure not costed.	Low (due to likelihood of bat roosts being present)

Ecological Assessment

Key Issues	Legislation/Policy	Assumption	Further Survey / input?	Seasonal Timing	Mitigation Required	Seasonal Timing	Programme Delay Risk	Survey/ Mitigation Cost Estimate*	Risk Rating
						roost type present.			
Fox									
<p>Fox earths potentially on the Site.</p> <p>Fox are protected against cruelty and killing in certain ways. Should fox earths be present the development could cause the inhumane killing or injury of a fox.</p>	Wild Mammals Protection Act 1996 PR and reputational risk.	Vegetation clearance and or excavations could cause inhumane killing or injury.	No (but see mitigation recommendations)	N/A	Site supervision during vegetation clearance if fox earths are identified gating of earth to exclude foxes prior to earth destruction	N/A	None	Mitigation for site supervision and gating £1500	Low
Grey squirrel									
<p>Trees on Site may contain squirrel dreys, removal of trees and vegetation may cause potential harm to squirrels. Although these are a non-native species care to avoid inhumane killing or injury.</p>	Wild Mammals Protection Act 1996, PR and reputational risk.	Trees and scrub to be removed for development	No	N/A	<p>Dreys should be removed when juvenile squirrels are unlikely to be present</p> <p>Avoidance of the 2 main breeding seasons when young are in the drey (February to October inclusive) is recommended.</p>	<p>Fell the trees in winter (November to January inclusive) or check the trees for dreys prior to felling.</p> <p>They are obvious large round untidy looking nests about the size of a football.</p>	None	<p>Mitigation</p> <p>£500- 1000 per day for site supervision or drey removal during felling / vegetation removal if present</p>	Low
London BAP species									
Stag beetle	Listed on London BAP and Section 41 NERC Act 2006.	The Site is suitable for stag beetle. Records of stag beetle from within the vicinity of the Site have been returned from 2015 by NBN Atlas.	No	N/A	<p>Site supervision during vegetation clearance and relocation of habitat should stag beetle or larvae be found.</p> <p>Retention of stag beetle habitat on Site</p>	N/A	None	<p>Mitigation</p> <p>£500- 1000 per day for site supervision</p> <p>Design and replacement of green infrastructure not costed</p>	Low
Invasive species									
False acacia, holm oak and green alkanet	London Invasive Species Index	Development could cause these species to spread	No	N/A	It would be good practice to remove these species during subsequent development and to implement mitigation to ensure they are not spread	N/A	N/A	<p>N/A</p> <p>Can be undertaken with vegetation clearance for development.</p>	Low

* Cost estimates only, actual costs would depend on the design and programme of any subsequent development and do not include costs for reports in support of planning application or any associated protected species licencing

7 CONCLUSIONS

There are no likely significant ecological constraints with regards to the development of this Site. The Site is not located within or near any statutory or non-statutory designated sites.

Constraints are listed below:

- The Site was comprised of dense scrub, managed and unmanaged amenity grassland, tall ruderals and scattered trees. The habitats on Site were generally of poor quality and with limited potential for protected or notable species due to the lack of positive management, fly tipping and potential illegal occupation by vagrants. However, these habitats are valuable in terms of green infrastructure, likely performing important ecosystem services (such as water quality and volume attenuation and air quality attenuation etc.).
- There is potential for nesting birds to be utilising the trees and scrub on the Site, including species listed on the London BAP such as house sparrow. Removal of all trees and scrub vegetation on the Site will need to be conducted outside of the bird nesting season (March – August inclusive) or under an ecological watching brief.
- Habitats present on Site, such as unmanaged amenity grassland and dense scrub are suitable for reptiles. All native reptiles in England are protected from intentional killing and injury. Therefore Site supervision with regards to this species during site clearance is recommended. Site clearance should be avoided during hibernation season between mid-October and April as disturbance during hibernation carries a high probability of mortality.
- Not all of the trees on Site were fully inspected for roosting bat potential (access was limited due to the dense scrub present). None of the trees on Site which were inspected had any evidence of potential roost features (PRF's). Further inspections should be undertaken when access is available and there is more information regarding potential impacts to the trees.
- No mammal burrows were observed on the Site, however there is potential that fox earths may be present within the inaccessible dense scrub area. The presence of fox earths within this area will need to be confirmed once more of the dense vegetation is cleared from the Site. Foxes are protected against cruelty, so if fox earths are found, these will have to be removed from the Site humanely.
- There is potential for grey squirrel to be breeding within the trees. This species is non-native and of negligible ecological value, however squirrels are protected from cruelty. If squirrels are found on Site, these should be removed in a humane manner.
- There is potential for the London BAP species Stag beetle to be present within the Site. Site supervision during vegetation clearance is recommended.
- There will be some ecological benefit from the removal of non-native and invasive species on LISI, which is likely to occur when the site is cleared for any construction. There is no legal obligation to control any of the LISI species recorded on the Site or to remove of them as controlled waste but it is good practice to remove them and to avoid their spread.
- Trees and other vegetation should be replaced within any proposed soft landscaping and these designs should be evolved in liaison with an ecologist and arboriculturist. In addition, rain gardens, biodiversity roofs and other green infrastructure should be considered within any development.
- There are also opportunities for enhancements for London BAP species. Bird boxes for sparrows would be a valuable enhancement along with appropriately located bat roosting boxes and dead wood loggeries if possible.

SITE PHOTOGRAPHS

Table 2: Land at Christchurch Road and Brixton Hill

Land at Christchurch Road and Brixton Hill: Site Photographs	
	
Photograph 1: Unmanaged amenity grassland.	Photograph 2: Managed Amenity Grassland.
	
Photograph 3: Tall ruderals and gate access to Site (south west corner of the Site).	Photograph 4: Open access to Site (south east corner of the Site).
	
Photograph 5: Evidence of fly tipping and Site access for the illegal occupation on the Site.	Photograph 6: dense scrub.

FIGURE 1: STATUTORY DESIGNATED SITES WITHIN 2KM OF THE SITE CENTRE

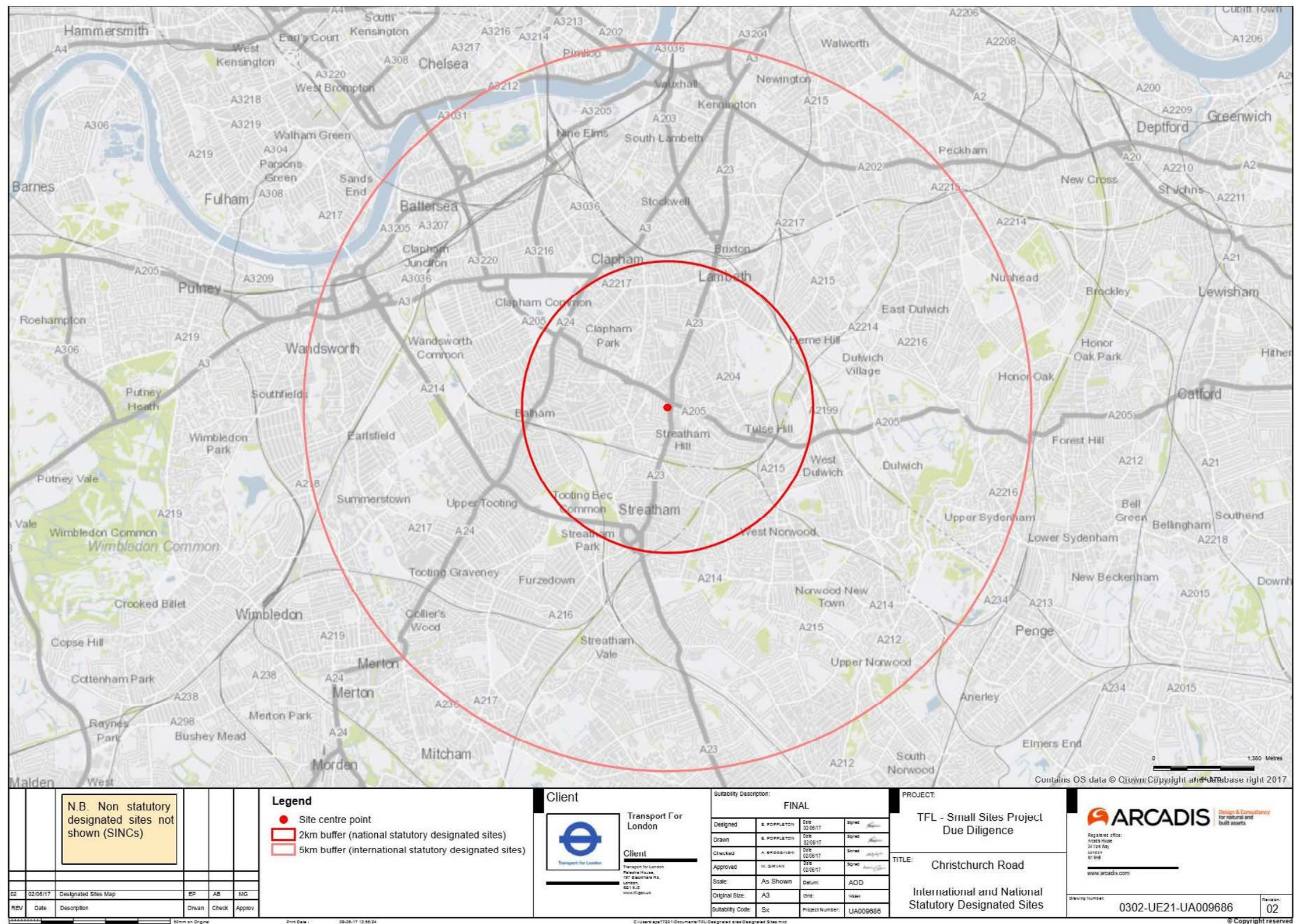
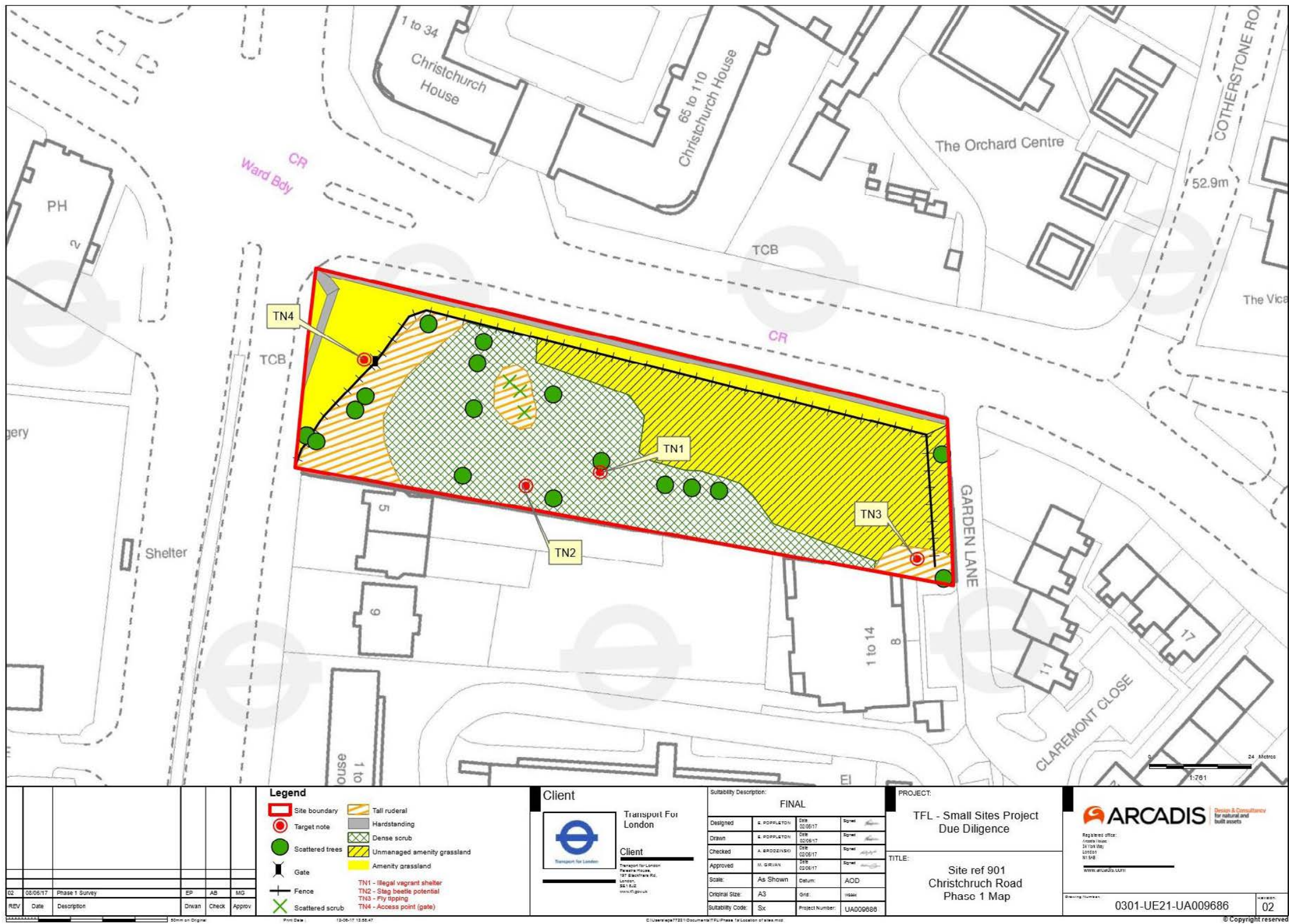


FIGURE 2: EXTENDED PHASE 1 HABITAT MAP (WITH DEDICATED SURVEY RESULTS AND TARGET NOTES)



Appendix A : Desk Study Review

Statutory Designated Sites

The desk study found no Natura 2000 sites (SPAs, SACs, Ramsar) within 5km of the Site or LNR's within 2km of the Site.

Non-Statutory Designated Sites

The Lambeth Council website returned, the following non-statutory designated sites within 1km of the Site:

Sites of Borough Importance for Nature Conservation (SBINCs):

- Rush Common and Brixton Hill;
- Palace Road Nature Gardens;
- Unnamed – Railway sections;
- Brockwell Park; and
- Clapham common.

Sites of Metropolitan Importance for Nature Conservation (SMINCs):

- Tooting Common

It was assessed that there was negligible potential for significant impacts to these sites from any development on the Site.

Woodlands registered on the Ancient Woodland Inventory (AWI)

There were no woodlands registered on the Ancient Woodland Inventory found within 2km of the Site.

Non-Statutory Designated Sites

Table A:1: Non-Statutory Designated Sites

Site Name	Designation	Size (ha)	Distance (m)	Direction	Description
Sites of Borough Importance for Nature Conservation (SBINCs)					
Rush Common and Brixton Hill	SBINC	N/A	300	North	Rush Common land is a much valued and historic area whose character and open space provide a valuable amenity to Brixton.
Palace Road Nature Gardens	SBINC	0.6	500m	South east	A number of the trees and shrubs as well as part of the path system date from the original garden with specimen trees including evergreen oak, Swedish whitebeam and conifer now overlaid by native tree and regenerated native plant material. The pond has good aquatic planting, with a meadow near the entrance. The small park is off a tree-lined road with wide grass verges, itself an important survival of earlier landscaping.

Ecological Assessment

Site Name	Designation	Size (ha)	Distance (m)	Direction	Description
Unnamed – Railway sections	SBINC	N/A	700m	South and South west	Railway sections
Brockwell Park	SBINC	51	915m	North east	Brockwell Park is a large, historic park located between Brixton, Dulwich and Herne Hill. As well as ornamental ponds, formal flower beds, a walled 'Old English' herbaceous flower garden and a charming 19th century clock tower, Brockwell Park contains a number of historic buildings, including Brockwell Hall and the Brockwell Lido.
Clapham Common	SBINC	89	1900m	North west	Clapham Common is a large triangular urban park in Clapham, south London. Originally common land for the parishes of Battersea and Clapham, it was converted to parkland under the terms of the Metropolitan Commons Act 1878.
Sites of Metropolitan Importance for Nature Conservation (SMINCs)					
Tooting Common	SMINC	62	930m	South west	Tooting Common is a Site of Metropolitan Importance due to its stretches of acid grassland, and it is notable for the many large oak trees and historic avenues.

Overview of Protected, Notable and Invasive Species in London

This section of this report outlines the status of protected and notable species in London. The status of these species on the Site is discussed in section 3. Relevant conservation status and legislation is presented in Appendix B and C.

Non-native invasive species in Greater London

London is an extremely urbanised area and is a major international port for both people and goods, this in addition to its climate and major levels of construction has encouraged the spread of a number of non-native invasive species that are becoming pests. Therefore, in addition to those species listed on Schedule 9 of the Wildlife and Countryside Act (WCA)¹¹ (1981, as amended) there is a London Invasive Species Initiative (LISI)²²: Managed by the London Biodiversity Partnership, which lists non-native invasive species that should be controlled in London. Species potentially relevant to the Site include those presented in Table A2.

Table A2: Potential Schedule 9 (WCA 1981, as amended) or LISI species

Common Name	English Name	Status
Japanese Knotweed	<i>Fallopia japonica</i>	Schedule 9 and LISI
Cotoneaster (numerous)	<i>Cotoneaster</i> spp.	Schedule 9 and LISI
Rhododendron	<i>Rhododendron ponticum</i>	Schedule 9 and LISI
Indian (or Himalayan balsam)	<i>Impatiens glandulifera</i>	Schedule 9 and LISI
Virginia creeper	<i>Parthenocissus quinquefolia</i>	Schedule 9
Montbretia	<i>Crocsmia x crocosmiiflora</i>	LISI
Cherry Laurel	<i>Prunus laurocerasus</i>	LISI
False acacia	<i>Robinia pseudoacacia</i>	LISI
Green alkanet	<i>Pentaglottis sempervirens</i>	LISI
Butterfly-bush	<i>Buddleia davidii</i>	LISI
Snowberry	<i>Symphoricarpos albus</i>	LISI
Tree of heaven	<i>Ailanthus altissima</i>	LISI
Holm oak	<i>Quercus ilex</i>	LISI
Passion flower	<i>Passiflora caerulea</i>	LISI
Spanish bluebell	<i>Hyacinthoides hispanica</i> & <i>H. x massartiana</i>	LISI
Holm oak	<i>Quercus ilex</i>	LISI

¹¹ WCA, 1981 as amended

²² London Invasive Species Plan (2012). Legislative and Information Exchange Framework. [online] Available at <http://www.londonisi.org.uk/tackling-inns/lisp/>. [accessed May 2017]

Bats in Greater London

From previous Arcadis work in London and from data from the London Bat Group the most likely bats species to be present are common and soprano pipistrelle (*Pipistrellus pipistrellus* and *P. pygmaeus*) which are by far the more frequent, followed by Daubenton's (*Myotis daubentonii* in the vicinity of open water) noctule (*Nyctalus noctula*) and brown long-eared (*Plecotus auritus*). These are all London BAP species and S41 species with the exception of Daubenton's and common pipistrelle. Full details of the conservation status of these species and the results from the London Bat Group Species Action Plan Audit are presented in Appendix B Table B2 **Error! Reference source not found.**

In general, every borough will have bats present, as even in the inner boroughs there are usually some areas of suitable habitat that can provide feeding habitat for small numbers of common and light tolerant bat species such as soprano and common pipistrelles. In general, the outer boroughs with larger areas of more suitable habitat should be expected to have higher numbers of bats and a greater diversity of species.

Birds in Greater London

There are a number of bird species that although relatively common are in decline and have been highlighted section 41 or London Priority BAP species and/or birds of conservation concern that have the potential to be present (Table A3).

Table A.3: *Birds of conservation concern associated with London*

Common Name	English Name	Status	Typical London habitats
Black redstart	<i>Phoenicurus ochrurus</i>	L	Traditionally found on brownfield sites around the built environment in proximity to standing or tidal Thames water
Dunnock	<i>Prunella modularis</i>	S41:L:	Associated with dense scrub and trees in private gardens and pocket parks
Grey heron	<i>Ardea cinerea</i>	L	associated with tidal Thames and standing water
House sparrow	<i>Passer domesticus</i>	S41:L:R	Associated with dense scrub and trees in private gardens and pocket parks traditionally a species associated with nesting in buildings
Peregrine	<i>Falco peregrinus</i>	L	Tidal Thames and the built environment using tall buildings for roosting and nesting and foraging on other birds particularly pigeons
Song thrush	<i>Turdus philomelos</i>	S41:L:R	Associated with dense scrub and trees in private gardens and pocket parks
Starling	<i>Sturnus vulgaris</i>	S41:L:R	Built environment
Tree sparrow	<i>Passer montanus</i>	S41:L:R	Associated with dense scrub and trees in private gardens and pocket parks

Section 41 = S41: London BAP = L: R = Birds of Conservation Concern Red List

Reptiles in Greater London

Records from SARG (Surrey Amphibian and Reptile Group) and the London Biodiversity Action Plan show that the presence of European Protected Species of reptile in the London area is generally very unlikely. Common lizard (*Zootoca vivipara*) and Slow worm (*Anguis fragilis*) are the most likely reptiles to be present followed by Grass snake (*Natrix natrix*) with Adder (*Vipera berus*) being unlikely to be present these are all Section 41 and London BAP species.

Badger in Greater London

Badger is a London BAP species and can be found using private gardens, woodlands and parklands across London.

Amphibians including Great Crested Newts (GCN) in Greater London

GCN are Section 41 and London BAP species, that while uncommon are found breeding in ponds associated with private gardens, from data available from Froglife (2012), 71 Sites across Greater London were surveyed where historical GCN records were identified, of none of these sites were located within the London Borough of Barnet¹². Of the other amphibians that are London BAP species Common frog (*Rana temporaria*), palmate newt (*Triturus helveticus*) and Common toad (*Bufo bufo*), common toad is also a Section 41 species

Other Potentially Relevant S41 and London BAP species

There are a number of other species that have the potential to be relevant to the Site:

- Black poplar (*Populus nigra*);
- Mistletoe (*Viscum album*);
- Hedgehog (*Erinaceus europaeus*); and
- Stag beetle (*Lucanus cervus*), there was an NBN record within 500m of the Site.

Table A.4: Designated site descriptions

Designation	Description
Special Areas of Conservation (SAC) Special Protected Areas (SPAs)	Sites designated under European law and are the most important sites for wildlife in the UK, along with Special Protected Areas (SPAs). SACs are designated under the European Habitats Directive (Council Directive 92/43/EEC). Both the Habitats and Birds Directives provide for the creation of a network of protected areas across the EU, to be known as 'Natura 2000'. The designations aim to conserve important or threatened species and habitats and provide them with increased protection and management
National Nature Reserve (NNR)	Statutory reserves established for the nation under the Wildlife and Countryside Act, 1981. NNRs may be owned by a relevant national body, e.g. Natural England, or by established agreement; a few are owned and managed by non-statutory bodies. NNRs cover a selection of the most important sites for nature conservation in the UK.
Sites of Special Scientific Interest (SSSI)	Are areas notified under the Wildlife and Countryside Act 1981 by Natural England as being of special interest for nature conservation. SSSI notification forms the statutory bedrock for site protection. Biological SSSIs form a national network of wildlife sites, with each site being of national significance for its nature conservation value. Consultation and some form of agreement with the national statutory conservation agency is mandatory before any listed, potentially damaging development or change in land use can be carried out
Local nature reserves (LNR)	These are land owned, leased or managed by Local Authorities and designated under the National Parks and Access to the Countryside Act. These are sites of some nature conservation value managed for educational objectives. In some cases it is managed by a non-statutory body (e.g. the London Wildlife Trust). Local Authorities have the power to pass bylaws controlling (e.g.) access, special protection measures.

¹² Capital Great Crested Newts Revisited (2012). Project report – Public Web Edition

Designation	Description
Sites of Metropolitan Importance for Nature Conservation (SMINCs)	These are sites that contain the best examples of London's habitats. These sites are of strategic significance and are therefore of the highest priority against damage or loss
Sites of Borough Importance for Nature Conservation (SBINCs) Grades I and II	Sites of Borough Importance for Nature Conservation (SBINCs) Grades I and II are important in the context of the borough. The nature conservation quality of these sites varies and so these sites are graded as I or II in relation to their nature conservation potential.
Sites of Local Importance for Nature Conservation (SINCs)	These are sites of particular importance to people nearby (such as residents and schools). Local sites are particularly important in areas otherwise deficient in nearby wildlife sites.

Appendix B : Bat Habitat Suitability and London Population Status

Table B: 1 BCT (2016) – Habitat Suitability Criteria

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	<p>A structure with one or more potential roost sites that could be used by individual bats opportunistically.</p> <p>However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions^a and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation).</p> <p>A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.</p>	<p>Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat.</p> <p>Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.</p>
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species	<p>Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens.</p> <p>Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.</p>

Ecological Assessment

	conservation status, which is established after presence is confirmed).	
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.	<p>Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge.</p> <p>High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland.</p> <p>Site is close to and connected to known roosts.</p>

Ecological Assessment

Table B: 2 Bat species status in London from the London Bat Species Action Plan Audit

Common Name	Latin Name	UK Status	London Status	Notes
Greater horseshoe bat	<i>Rhinolophus ferrumequinum</i>	Endangered BAP Priority	Extinct	Last Greater London record from Oxleas Wood in 1953.
Lesser horseshoe bat	<i>Rhinolophus hipposideros</i>	Endangered BAP Priority	Extinct	Last Greater London record from Abbey Wood (Woolwich) in 1952-3.
Whiskered bat	<i>Myotis mystacinus</i>	Vulnerable	Rare	Due to difficulty in separation, these are considered together. Occur rarely and in low numbers in outer London Boroughs such as Hillingdon, Richmond, Bexley and Bromley. One current known (winter) roost only.
Brandt's bat	<i>Myotis brandtii</i>	Vulnerable	Rare	
Natterer's bat	<i>Myotis nattereri</i>	Vulnerable	Scarce	Still relatively few records in Greater London. Most central locations are Highgate Wood and Hampstead Heath, otherwise Richmond and Hounslow and occasionally other outer London Boroughs. 8 current known roosts (mostly winter).
Daubenton's bat	<i>Myotis daubentoni</i>	Not Threatened	Locally frequent but declining	Relatively widespread and strongly associated with ponds, lakes & rivers. Occasional summer roosts have been found in trees on Wimbledon Common and in Ruislip Woods. Contrary to the national trend, this species is apparently declining in London and its sensitivity to increasing ambient light levels is a possible reason. 4 current known winter roosts.
Serotine	<i>Eptesicus serotinus</i>	Vulnerable	Rare; has declined	Serotines are found in outer London Boroughs, especially Bromley, Havering, Sutton and Richmond. 2 current known summer roosts, in Bromley and Teddington.
Noctule	<i>Nyctalus noctula</i>	Vulnerable; declining BAP Priority	Widespread but declining	The status of this large, wide-ranging bat is difficult to assess, but the past two decades have seen a rapid decline in the species and this mirrors the national trend. An exclusively tree-roosting bat; current known roosts number <10 London-wide.
Leisler's bat	<i>Nyctalus leisleri</i>	Vulnerable	Scarce	Leisler's bat has been recorded infrequently in London area, yet sightings have doubled in the last three years. New foraging sites for the species include the Barnes area, Wandsworth Common and Brent Reservoir. 3 current known roosts (Haringey, Bromley and Bexley).

Common Name	Latin Name	UK Status	London Status	Notes
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	Not Threatened	Common	A widespread species, the common pipistrelle is believed to occur in all London boroughs. Roosts are still discovered relatively infrequently, however.
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	BAP Priority	Common	Also widespread and probably London's commonest bat. Apparently more associated with wetland habitats than its close relative, <i>P. pipistrellus</i> . Known roosts currently number 15-25?, but many more pass undetected.
Nathusius's pipistrelle	<i>Pipistrellus nathusii</i>	Rare	Rare	Only recently confirmed as a UK breeding species. Detector records from an increasing list of sites include Lesnes Abbey Woods, Chislehurst Ponds and the Wetland Centre at Barnes. 1 known current roost site in bat boxes in Hounslow.
Brown long-eared bat	<i>Plecotus auritus</i>	Declining BAP Priority	Scarce	Brown long-eared bats are fairly secretive and may be under-recorded in Greater London, although reasons for the national decline are also likely to affect London's population. Roosts have been found in Bexley, Bromley, Hillingdon, Wandsworth, Kensington & Chelsea, Barnet, and Richmond.

NB: This audit is based on data from the London Bat Project collected in the mid-1980s, as well as that collected since by the London Bat Group and is therefore not systematic. This audit is the best possible understanding of the status of bats in London that can currently be realised by the London Bat Group.

Appendix C: Selected Legislation, Nature Conservation Status and Policy

Legislation

Table C: 1 Legislation Summary

Receptor	Legislation
Nesting Birds	<p>The legislation relevant to the potential ecological constraints on Site associated with nesting birds.</p> <p>All wild birds, their nests and eggs are protected under the Wildlife and Countryside Act 1981 (as amended)¹³. Section 1 of the Act makes it an offence to:</p> <ul style="list-style-type: none"> intentionally kill, injure or take any wild bird; intentionally take, damage or destroy the nest of any wild bird while that nest is in use or being built; or

¹³ Anon (1981) Wildlife and Countryside Act. HMSO, London

Receptor	Legislation
	<ul style="list-style-type: none"> intentionally take or destroy an egg of any wild bird. <p>It is also an offence to:</p> <ul style="list-style-type: none"> intentionally disturb any wild bird included in Schedule 1 of the Act while it is building a nest or is in, on or near a nest containing eggs or young; or disturb dependent young of such a bird. Species listed on Schedule 1 include the black redstart, barn owl (<i>Tyto alba</i>), Cetti's warbler (<i>Cettia cetti</i>) and kingfisher (<i>Alcedo atthis</i>). <p>There is no potential for Schedule 1 birds to be nesting on Site, the legislation regarding common nesting birds will be complied with due to the precautionary mitigation previously stated.</p>
Badgers	<p>Badgers are protected from inhumane killing or injury under the Badgers Act (1992)¹⁸, this also protects their setts from damage and prohibits blocking access to their setts.</p>
Bats	<p>The legislation relevant to the constraint identified associated with bats.</p> <p>Bats are protected under the Wildlife and Countryside Act 1981 (as amended) and the Conservation of Habitats and Species Regulations 2010 (as amended).</p> <p>Bats are listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and are subject to the provisions of Section 9 of the Act, which make it an offence to:</p> <ul style="list-style-type: none"> intentionally or recklessly disturb a wild animal listed on Schedule 5 whilst it is occupying a structure or place which it uses for shelter or protection; intentionally or recklessly obstruct access to any structure or place used for shelter or protection by a wild animal listed on Schedule 5; sell, offer or expose for sale, or to possess or transport for sale alive or dead wild animal listed on Schedule 5 or any part of or anything derived from a wild animal listed on Schedule 5. <p>Bats are also listed on Schedule 2 (European protected species of animals) of the Conservation of Habitats and Species Regulations 2010 (as amended) and are subject to the provisions of Regulation 41 which makes it an offence to:</p> <ul style="list-style-type: none"> deliberately capture, injure or kill any wild animal of a European protected species; deliberately disturb wild animals of any such species (where disturbance is likely to impair their ability to survive, breed or reproduce, rear or nurture their young; or to hibernate or migrate; or to affect significantly the local distribution or abundance of the species); damage or destroy a breeding site or resting place of such an animal; or

¹⁸ Protection of Badgers Act 1992 (as amended)

Receptor	Legislation
	<ul style="list-style-type: none"> • be in possession of, control, transport, sell or exchange, or offer for sale or exchange any live or dead animal of such a species or any part of a wild animal or anything derived from an animal or any part of an animal of such a species.
Great Crested Newts	<p>Great crested newts are a European Protected Species (EPS), listed on Annex II and IV of the EEC Directive on the Conservation of Natural Habitats and Wild Fauna and Flora, receiving protection under The Conservation of Habitats and Species Regulations 2010. This species is also afforded full protection under the Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) (WCA 1981). Under such legislation it is an offence to:</p> <ul style="list-style-type: none"> • Intentionally or recklessly kill, injure or take a great crested newt; • Possess or control any live or dead specimen or anything derived from a great crested newt; • Intentionally or recklessly damage, destroy or obstruct access to any structure or place used for shelter or protection by a great crested newt; and <p>• Intentionally or recklessly disturb a great crested newt while it is occupying a structure or place which it uses for that purpose.</p>
Reptiles	<p>The relevant legislation relevant to the constraint identified associated with reptiles All native British reptile species are protected under the Wildlife and Countryside Act 1981 (as amended). Reptiles are listed under Schedule 5 of the Act. The four more widespread species including common lizard, slow worm, adder and grass snake are subject to some of the provisions of Section 9 of the Act, which make it an offence to:</p> <p>*</p> <ul style="list-style-type: none"> • intentionally kill or injure a reptile; or * sell, offer or expose for sale, or • to possess or transport for sale alive or dead reptile or any part of, or anything derived from, a reptile.
Other Mammals	<p>Other mammals not protected by their own legislation are protected by the Mammal Act (1996). The Act makes provision for the protection of wild mammals from certain cruel acts.</p> <p>An offence is committed if any person mutilates, kicks, beats, nails, or otherwise impales, stabs, burns, stones, crushes, drowns, drags, or asphyxiates any wild mammal with intent to inflict unnecessary suffering.</p>
Non Native Invasive Species	<p>Numerous species are listed on Schedule 9 (of the Wildlife and Countryside Act 1981, as amended) whereby it is an offence to grow or to cause this species to grow in the wild. A species on Schedule 9 that commonly occurs in London is Japanese Knotweed (<i>Fallopia japonica</i>) which is also covered by the Environmental Protection Act (EPA) 1990 which designates this as a controlled waste.</p>

Nature Conservation Status

- **Birds of Conservation Concern (BOCC) (2015)**

The UK's leading bird conservation organisations worked together to produce The Population Status of Birds in the UK: Birds of Conservation Concern Four (BoCC).

Commonly referred to as the UK Red List for birds, this is the fourth review of the status of birds in the UK, Channel Islands and Isle of Man, and updates the last assessment in 2009. Using standardised criteria, 244 species with breeding, passage or wintering populations in the UK were assessed by experts from a range of bird NGOs and assigned to the Red, Amber or Green lists of conservation concern.

Table C: 2 Bird Population Status Criteria for Birds of Conservation Concern in the UK

Criteria	Status
Red list criteria	Globally threatened Historical population decline in UK during 1800–1995 Rapid (> or =50%) decline in UK breeding population over last 25 years Rapid (> or =50%) contraction of UK breeding range over last 25 years
Amber list criteria	Historical population decline during 1800–1995, but recovering; population size has more than doubled over last 25 years Moderate (25–49%) decline in UK breeding population over last 25 years Moderate (25–49%) contraction of UK breeding range over last 25 years Moderate (25–49%) decline in UK non-breeding population over last 25 years Species with unfavourable conservation status in Europe, termed Species of European Conservation Concern (SPEC) Five-year mean of 1–300 breeding pairs in UK > or =50% of UK breeding population in 10 or fewer sites, but not rare breeders > or =50% of UK non-breeding population in 10 or fewer sites > or =20% of European breeding population in UK > or =20% of northwest European (wildfowl), East Atlantic Flyway (waders) or European (others) non-breeding populations in UK
Green list	No identified threat to the population's status

Relevant Policy

National

The Site survey, assessment and recommended mitigation ensure compliance with the following policies, any additional enhancement measures would further comply with these policies:

- **The National Planning Policy Framework (NPPF 2012)**¹⁴ sets out how the planning system should protect and enhance nature conservation interests. Section 11 is concerned with conserving and enhancing the natural environment Opportunities to enhance biodiversity are also encouraged.
- **The Natural Environment and Rural Communities (NERC) Act 2006**¹⁵ places a duty upon public bodies to consider Section 41 lists flora, fauna and habitats (previously UK BAP habitats and species) as a material consideration in planning and to consider enhancement of biodiversity.
- **Biodiversity 2020:** A strategy for England's Wildlife and Ecosystem Services¹⁶ includes a list of Habitats of Principal Importance in England (HPIEs) and Species of Principal Importance in England (SPIEs). These were previously included as Priority Habitats and Priority Species in the UK BAP.

London

- **London Invasive Species Initiative (LISI)**¹⁷: Managed by the London Biodiversity Partnership, LISI lists non-native invasive species that should be controlled in London. Species relevant to the Scheme include Japanese Knotweed and Butterfly-bush.
- **London Biodiversity Action Plan (BAP)**¹⁸: Managed by the London Biodiversity Partnership (2006), the London BAP sets out priority habitats and species for the city. London BAP habitats relevant to the Scheme include reed beds, standing water and wasteland.
- **The London Plan (2011) Strategic Policy 7.19 Biodiversity and Access to Nature and Policy 7.21 Trees and woodlands) (updated with the Minor Alterations to the London Plan 2016)**¹⁹: Regional planning policy for London is presented in the London Plan: Spatial Development Strategy for Greater London. It contains various policies with regard to nature conservation in London, which include commitments to protect, enhance, create, promote, expand and manage the extent and quality of green infrastructure and biodiversity and to increase access to nature, the following elements of SP 7 are as follows:
 - **Strategic Policy 7.19 Biodiversity and Access to Nature and Policy:**
 - 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.
 - 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.
 - C) Development Proposals should:
 - a) wherever possible, make a positive contribution to the protection, enhancement, creation and management of biodiversity
 - b) prioritise assisting in achieving targets in biodiversity action plans (BAPs), set out in Table 7.3, and/or improving access to nature in areas deficient in accessible wildlife sites
 - c) not adversely affect the integrity of European sites and be resisted where they have significant adverse impact on European or nationally designated sites or on the population or conservation status of a protected species or a

¹⁴ Anon (2012) The National Planning Policy Framework HMSO, London

¹⁵ Anon (2006) The Natural Environment and Rural Communities Act HMSO, London

¹⁶ Department for Environment, Food and Rural Affairs (2011) *Biodiversity 2020: A strategy for England's Wildlife and Ecosystem Services*

¹⁷ London Invasive Species Plan (2012). Legislative and Information Exchange Framework. [online] Available at <http://www.londonisi.org.uk/tackling-inns/lisp/>. [Available June 2016]

¹⁸ City of London (2009). *London Biodiversity Action Plan 2010 – 2015*

¹⁹ Greater London Authority (2011) *The London Plan Strategic Policy 7.19 Biodiversity and Access to Nature and Policy 7.21 Trees and woodlands) (updated with the Minor Alterations to the London Plan 2016)*

- priority species or habitat identified in a UK, London or appropriate regional BAP or borough BAP.
- D) On Sites of Importance for Nature Conservation development proposals should:
 - a) give the highest protection to sites with existing or proposed international designations¹ (SACs, SPAs, Ramsar sites) and national designations² (SSSIs, NNRs) in line with the relevant EU and UK guidance and regulations
 - b) give strong protection to sites of metropolitan importance for nature conservation (SMIs). These are sites jointly identified by the Mayor and boroughs as having strategic nature conservation importance
 - c) give sites of borough and local importance for nature conservation the level of protection commensurate with their importance.
 - E) When considering proposals that would affect directly, indirectly or cumulatively a site of recognised nature conservation interest, the following hierarchy will apply:
 - 1 avoid adverse impact to the biodiversity interest
 - 2 minimize impact and seek mitigation
 - 3 only in exceptional cases where the benefits of the proposal clearly outweigh the biodiversity impacts, seek appropriate compensation.
 - 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.
 - **Strategic Policy 7.21 Trees and Woodlands:**
 - 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.
 - 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.
 - 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.
 - **The London Plan (2011) , Housing Supplementary Planning Guidance (March 2016)²⁰:**

With regards to housing, recently a dedicated supplementary planning guidance has been produced, the relevant elements of which are presented below

²⁰ Greater London Authority (2016) *London Plan 2016 Implementation Housing Supplementary Planning Guidance adopted in March 2016*

- Standard 40 and Policy 7.19 “Biodiversity and access to nature promotes a proactive approach to the protection, promotion and management of biodiversity across the capital” and that “Proposals for development should give full consideration to their direct and indirect effects on ecology. Ecological improvements can be achieved as part of Sustainable Urban Drainage Systems and incorporated into green or brown roofs, green walls and soft landscaping.”
- Policies 7.19 and 7.21 “supporting biodiversity, protecting London’s trees, ‘green corridors and networks”.
- Development proposals should also enhance provision of green infrastructure in the public realm, helping to mitigate and adapt to climate change (Policy 5.10 Urban Greening), extend tree cover (Policy 7.21), improve biodiversity (Policy 7.19).
- Public, communal and private open spaces should be protected and enhanced, and where possible new open spaces should be created. This is supported by Policy 2.18 Green Infrastructure, Policy 7.18 Protecting open space, Policy 7.19 Biodiversity and Policy 7.21 Trees and Woodlands.
- **The Mayor’s Biodiversity Strategy (2002)**²¹: Connecting with London’s Nature: The Mayor’s Biodiversity Strategy provides a statutory framework for the delivery of biodiversity policies in London. It seeks to ensure that there is no overall loss of wildlife habitats in London.
- **The London Plan (2011), Sustainable Design and Construction Supplementary Planning Guidance (April 2014)**²²:
 - Mayor’s Priority - Developments should contribute to the Mayor’s target to increase tree cover across London by 5% by 2025.
 - Mayor’s Priority - There is no net loss in the quality and quantity of biodiversity.
 - Mayor’s Priority - Developers make a contribution to biodiversity on their development site.
 - Mayor’s Priority - Any loss of a tree/s resulting from development should be replaced with an appropriate tree or group of trees for the location, with the aim of providing the same canopy cover as that provided by the original tree/s.

Local

- **Lambeth Local Plan** (London Borough of Lambeth 2011)²³
 - Policy D3: In order to support growth in the borough, the council will safeguard and improve essential social, physical and green infrastructure and work in partnership with service providers to ensure the delivery of the additional infrastructure. The potential and predicted infrastructure requirements over the lifetime of the Local Plan;
 - Policy EN1: Open space and Biodiversity: The council will meet requirements for open space by: Protecting and maintaining open spaces and their function. Development which would involve the loss of existing public or private open space will not be supported unless at least one of the following tests is met:
 - (i) Replacement open space of equivalent or better quality and quantity is provided within a suitable location in the local area.
 - (ii) In the case of housing estate amenity areas, significant regeneration and community benefits would be achieved that could not be achieved in any other way, and appropriate compensatory provision for the loss of open space is made, including improvements to the quality of the remaining open space.
 - (iii) It is for the provision of facilities directly related to the use of open space including ecology centres, indoor sports facilities, changing rooms, toilets or cafes as long as these are appropriate in scale and form to the size and character of the open space and acceptable in terms of impact on openness and do not harm the function and operation of the open space.
 - Policy Q9: Landscaping: Development will be supported where landscaping:
 - (i) is fit for purpose and demonstrates that satisfactory provision has been made for future growth and aftercare;

²¹ Greater London Authority (2002), *Connecting with Nature: The Mayor’s Biodiversity Strategy adopted in 2002*

²² Greater London Authority (2011), *The London Plan Sustainable Design and Construction Supplementary Planning Guidance adopted in April 2014*

²³ <https://www.lambeth.gov.uk/sites/default/files/pl-lambeth-local-plan-2015.pdf> London Borough of Lambeth 2015, [accessed June 2017]

Ecological Assessment

- (ii) retains and enhances existing planting and landscape features of value and protects them during construction;
- (iii) protects and enhances existing designated habitats and creates new habitats/areas of nature conservation interest and biodiversity value;
- (iv) maximises opportunities for greening, such as through planting of trees and other soft landscaping;
- (v) makes use of plant species that are in keeping with the character of the existing vegetation on the site and in the general area;
- (vi) takes into account established or potential pedestrian and cycle desire lines and suitably accommodates them;
- (vii) provides strong boundary treatments, including trees and shrubs where appropriate;

Arcadis (UK) Limited

Arcadis House,
34 York Way,
London, N1 9AB
United Kingdom

www.arcadis.com