



# Ecological Impact Assessment

# Tooting Bec Lido, Wandsworth, London SW16 1RU

Wandsworth Borough Council
P3288.3.1
30 May 2019

# **ENABLING DEVELOPMENT**

Client	Wandsworth Borough Council		
Site	Tooting Bec Lido, Wandsworth SW16 1RU		
Report reference	P3288.3.1		
Prepared by	Ross Wotherspoon BSc (hons) MSc, Assistant Ecologist		
Reviewed by	Leslie Cousins BSc (Hons) PhD, MCIEEM, Senior Ecologist		
Approved by	Richard Parmee BSc MSc Tech Cert (ArborA) MArborA Grad CIEEM		
Date	30 May 2019		
Version	Final		

agb Environmental Ltd has prepared this document in accordance with the instructions of their client, Wandsworth Borough Council, for their sole and specific use and has been prepared based on a scope of works which has been agreed directly with the client.

agb Environmental Ltd Terms and Conditions apply.

© agb Environmental Ltd 2019 Newmarket Business Centre 341 Exning Road, Newmarket, CB8 0AT Tel: 01638 663226 www.agbenvironmental.co.uk



agb Environmental Ltd

# 1 Summary

Site	Tooting Bec Lido, Wandsworth SW16 1RU				
Central OS Grid Reference TQ 29465 71917					
Report Commissioned by	Wandsworth Borough Council.				
Date of Survey	14 <sup>th</sup> March 2019				

Considerations	Description	Comments & Recommendations
Surveys undertaken	Desk based study and walkover survey. No further surveys were considered necessary.	Both components informed a Preliminary Ecological Appraisal and Ecological Impact Assessment.
Ecological Features	The site comprised hard- standing, a building, dense scrub and broadleaved woodland. Habitats with potential to support nesting birds, stag beetle, white-letter hairstreak, amphibians and small mammals. Broadleaved woodland had potential to support foraging and commuting bats.	Land within the site to be affected by development work was dominated by hard- standing and a building which were of negligible ecological importance. With management the development can proceed without impacting adjacent woodland.
Ecological Impacts	It is assumed that the mitigation outlined in Section 5 will be adhered to at all times.	No significant impacts are anticipated from the proposed development on any of the important ecological features.
	Non-Statutory Site and Priority Woodland	Install Heras fencing on the site boundaries and minimize disturbance from noise, pollution and lighting.
Avoidance and General Mitigation	Birds.	Clear the building outside the nesting bird season, or after a nesting bird survey by an ecologist if clearance is scheduled between March and August (inclusive).
	Site measures.	Cover trenches or provide planked escape routes to allow any animals that fall in to escape. Minimise artificial lighting.
Enhancements	To increase the ecological value of the site.	Install green roofing. Minimise artificial lighting, install wildlife boxes for birds and bats, and create a log pile.

# Contents

1	Sun	nmar	у	2
2	Intro	oduc	tion	5
	2.1	Bac	kground	5
	2.2	Site	Location and Description	5
	2.3	Dev	elopment Proposal	5
	2.4	Sco	pe of the Assessment	5
	2.5	Obj	ective	5
3	Met	hodo	ology	6
	3.1	Sur	veyor	6
	3.2	Des	k Study	6
	3.3	Hab	itat Survey	6
	3.4	Pro	tected and Notable Species Assessment	7
	3.4.	1	Amphibians	7
	3.4.	2	Reptiles	7
	3.4.	3	Nesting Birds	7
	3.4.	4	Badgers	7
	3.4.	5	Bats	7
	3.4.	6	Hazel Dormouse	.8
	3.4.	7	Other Species	.8
	3.4.	8	Invasive Species	.8
	3.5	Nat	ure Conservation Evaluation and Impact Assessment	.8
	3.5.	1	Nature Conservation Evaluation	.8
	3.5.	2	Ecological Impact Assessment	9
	3.6	Lim	itations and Assumptions	9
4	Bas	eline	Conditions	10
	4.1	Des	ignated Sites	10
	4.1.	1	Statutory Sites	10
	4.1.	2	Non-Statutory Sites	11
	4.2	Hab	itats	12
	4.2.	1	Buildings	12
	4.2.	2	Hard-standing	12
	4.2.	3	Scrub	12
	4.2.	4	Broadleaved Woodland	13
	4.3	Pro	ected and Notable Species	14
	4.3.	1	Invertebrates	14
	4.3.	2	Amphibians	14
	4.3.	3	Reptiles	15

4.	.3.4	Birds	.15
4.	.3.5	Badgers	.15
4.	.3.6	Bats	.16
4.	.3.7	Hazel Dormouse	.18
4.	.3.8	Invasive Plants	.18
4.	.3.9	Hedgehogs and Other BAP / Rare Species	.18
5 In	npact A	Assessment	.19
5.1	Site	of Importance for Nature Conservation (SINC)	.19
5.2	Fora	aging and Commuting Bats	.20
5.3	Ger	neral Avoidance and Mitigation Measures	.20
5.4	Enh	ancements	.21
6 C	onclusi	ion	.23
7 R	eferen	ces	.24
Appen	ndix 1 F	Phase I Habitat Map	
Appen	ndix 2 L	egislation and Planning Policy	

#### Appendix 3 Characterising the Suitability of Habitats for Bats

Appendix 4 Bird Species Recorded within 2km of the Site

## 2 Introduction

#### 2.1 Background

agb Environmental was commissioned by Wandsworth Borough Council to undertake an Ecological Assessment (EA) at Tooting Bec Lido, Tooting Bec, London SW16 1RU, herein referred to as 'the site'.

A Preliminary Ecological Appraisal (PEA) was undertaken to inform the assessment. No further surveys were required and a sufficient level of design information was available to inform the assessment of impacts. The findings of the PEA have, therefore, been transposed into an Ecological Impact Assessment (CIEEM, 2017).

This report will support a planning application to demolish a section of the existing pump house and construct a new pump house within the existing footprint.

#### 2.2 Site Location and Description

The site was located in the London Borough of Wandsworth at central Ordnance Survey Grid Reference: TQ 29465 71917. The c. 1ha site was approximately divided into two distinct parcels of habitat. Separated by a fence, the north of the site comprised hard-standing and a building. The southern section of the site was dominated by woodland with associated scrub. (**Appendix 1**).

The site was situated within an urban location and surrounded by a railway line to the east, broadleaved woodland to the south, amenity grassland and the Lido Pavilion to the west and a large outdoor swimming pool to the north. The wider area comprised open space and woodland within Tooting Bec Common, with urban settlement beyond. The River Thames Estuary was c. 5km to the north.

#### 2.3 Development Proposal

Wandsworth Borough Council propose to refurbish an existing pump house that services the Tooting Bec Lido swimming pool. Development will include partial demolition of the building to replace the southern section  $(96m^2)$  with a new facility. All work will be confined to the north of the site and within the footprint of the existing pump house (Richmond and Wandsworth SSA Design Service, 2019).

#### 2.4 Scope of the Assessment

This report presents information obtained during the following:

- A desk-based assessment undertaken during March 2019; and
- A walkover survey undertaken on 15<sup>th</sup> March 2019.

#### 2.5 Objective

The objective of the assessment is to identify and describe all potentially significant effects associated with the development proposal, and set out any requirements for mitigation necessary to comply with conservation legislation or to address potential significant ecological effects. Potential enhancement opportunities have been identified in accordance with planning policy, and European and UK wildlife legislation (**Appendix 2**).

## 3 Methodology

#### 3.1 Surveyor

The site was surveyed by agb Environmental Ecologist Owen Jones BSc (Hons), who is licensed to survey for bats 2017-31719-CLS-CLS (Level 2) and great crested newts 2016-20091-CLS-CLS (Level 1).

#### 3.2 Desk Study

Natural England's Multi-Agency Geographic Information for the Countryside (MAGIC) database (Natural England, 2019) was accessed on the 15<sup>th</sup> March 2019 for information regarding:

- Natura 2000 sites such as Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites within 10km of the study area;
- Statutory sites designated for nature conservation within a 2km radius of the study area;
- Natural England's Impact Risk Zones (IRZs) for Sites of Special Scientific Interest (SSSI), Special Areas of Conservation, Special Protection Areas and Ramsar sites within which the study area was located; and
- Any European Protected Species Mitigation Licences granted by Natural England within a 2km radius of the study area.

Greenspace Information for Greater London CIC (GiGL) was also consulted on the 5<sup>th</sup> March 2019 for the following information for a 1km radius around the application site:

- Non-statutory nature conservation designations, such as Sites of Importance for Nature Conservation (SINC);
- Legally protected species, such as great crested newts, reptiles, birds and bats; and
- Notable species, such as those listed in the local Biodiversity Action Plan.

#### 3.3 Habitat Survey

A detailed walkover of the site was undertaken on the 14<sup>th</sup> March 2019 to record and map habitat types and ecological features within the site. The survey was undertaken in accordance with *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017), and the general principles and methods outlined in the *Handbook for Phase I Habitat Survey* (JNCC, 2010). This method of survey provides information on the habitats in the survey area and assesses the potential for notable or protected fauna to occur in or adjacent to the survey area. Features of interest were identified as target notes on the Phase I Habitat Map (**Appendix 1**).

Aerial photographs, maps and field observations were used to identify habitats in the wider landscape which could be impacted by development of the site.

Weather conditions during the survey: 13°C; a light air (Beaufort 1-2), 50% cloud cover and light rain.

#### 3.4 Protected and Notable Species Assessment

The site was inspected for evidence of and assessed for potential to support protected and notable species. This included species listed under the *Conservation of Habitats and Species Regulations 2017*, the *Wildlife and Countryside Act 1981 (as amended) (WCA)*, and those given extra protection under the *Natural Environment and Rural Communities (NERC) Act 2006, Countryside and Rights of Way (CRoW) Act 2000, and the Protection of Badgers Act 1992.* 

The following section outlines the protected / notable species that were considered within the assessment:

#### 3.4.1 Amphibians

The site was assessed for suitability to support amphibians such as the legally protected great crested newt *Triturus cristatus* and the notable common toad *Bufo bufo*. The assessment was undertaken in accordance with the *Herpetofauna Workers' Manual* (Gent & Gibson, 2003)and the *Great Crested Newt Conservation Handbook* (Langton, et al., 2001).

Maps and aerial images were searched for the presence of ponds, and other water-bodies, suitable for breeding amphibians within 250m of the site boundary.

#### 3.4.2 Reptiles

The site was assessed for suitability to support common species of reptile with reference to the *Herpetofauna Workers' Manual* (Gent & Gibson, 2003) and *Froglife Advice Sheet 10 An Introduction to Planning, Conducting and Interpreting Surveys for Snake and Lizard Conservation* (Froglife, 1999).

#### 3.4.3 Nesting Birds

The site was assessed for potential to support nesting birds. The building within the site was externally and internally inspected from the ground for signs of nesting birds. Vegetation including trees and dense scrub were also assessed for their potential for nesting birds.

#### 3.4.4 Badgers

The site and a 30m zone around the site (where accessible), were surveyed for badger *Meles meles* evidence such as setts, latrines, pathways, footprints, snuffle holes and badger hairs (Harris, et al., 1989).

#### 3.4.5 Bats

Potential for the site to support roosting, foraging and commuting bats was assessed in line with the Bat Conservation Trust (BCT) *Bat Surveys for Professional Ecologists Good Practice Guidelines* (Collins, 2016). Details of the criteria used are provided in **Appendix 3**.

The building on site was assessed for suitability to support roosting bats. Equipment used to investigate the building included; binoculars and high-power torch. The building was described and surveyed for bats and their evidence, which includes droppings, staining, scratch marks and feeding remains.

Trees were surveyed for evidence of bats and potential bat roost features (PRFs), and then assigned a level of suitability. PRFs include woodpecker holes, rot holes, hazard beams, cracks and splits, knot holes, cavities, loose bark, and partially detached ivy (Andrews, 2018).

Habitats and features within the site were assessed for suitability to support foraging and commuting bats according to criteria set out in guidance (Collins, 2016).

#### 3.4.6 Hazel Dormouse

The site was assessed for potential to support the hazel dormouse *Muscardinus avellanarius*, in accordance with the *Dormouse Conservation Handbook* (Bright, et al., 2006). Dormice typically use connected woodland, hedgerows and scrub that contain suitable food plants. Aerial images were used to assess the connectivity of any suitable habitat on the site to woodland and hedgerows within the wider area.

#### 3.4.7 Other Species

The site was assessed for suitability to support other protected and notable fauna species / assemblages including invertebrates and other mammals.

#### 3.4.8 Invasive Species

The site was searched for non-native invasive plants listed on Schedule 9 of the Wildlife and Countryside Act (HMSO, 1981) such as Japanese knotweed *Fallopia japonica*.

Consideration was also given to species listed on the London Invasive Species Initiative (LISI). The corresponding LISI Categories used to inform advice on disposal of these species, if necessary is presented in **Table 3.1**.

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

 Table 3.1: London Invasive Species Initiative (LISI) Categories.

## 3.5 Nature Conservation Evaluation and Impact Assessment

#### 3.5.1 Nature Conservation Evaluation

Designated sites, habitats and species (where presence has been identified) have been evaluated in accordance with the *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial and Freshwater* (CIEEM, 2018).

These guidelines aim to give consistency in evaluating the importance of the ecological features within and around a site, which help inform any effects or impacts a scheme will have upon them.

A value of the ecological features (designated sites, habitats or species) has been assigned according to their level of importance using the following terms:

- International and European
- National
- Regional
- Metropolitan
- Borough
- Local

#### 3.5.2 Ecological Impact Assessment

The assessment of predicted Ecological Impacts (positive, negative or neutral) was based on the results of the walkover survey, the desk study, relevant literature and professional knowledge of ecological processes and functions.

#### 3.6 Limitations and Assumptions

Access was available to the entire site and the baseline conditions reported represent those identified at the time of the survey. The survey date falls outside the optimal season for botanical work. However, the habitat descriptions and evaluations are considered to be accurate due to the common and widespread habitats recorded and the vegetation being clearly visible at the time of survey. Although a reasonable assessment of the site can be made during a single survey, seasonal variations are not observed.

This assessment provides an overview of the likelihood of protected / notable species occurring on the site (negligible, low, moderate, or high). Absence of a species cannot be presumed where no evidence was found. Further actions have been recommended where there is reasonable likelihood of a protected species being present and impacted by the development proposal. This is based on the suitability of the habitat and any evidence observed.

This assessment does not constitute a full botanical survey or a Phase 2 pre-construction survey for Japanese knotweed.

Assuming conditions within the site and the development proposal remain unchanged, the results of this assessment are likely to remain valid for up to three years i.e. until March 2022 (BSI, 2013). If works have not yet commenced by this time it may be necessary to update the assessment. With regards to bat roosts; if a period of more than three months elapses between the most recent survey and the submission of a licence application, a walk over survey should be carried out to check that conditions have not changed.

## 4 Baseline Conditions

The following section presents the results, evaluation and discussion of the designated sites, habitats and protected / notable species, which may be impacted by the proposed development.

#### 4.1 Designated Sites

#### 4.1.1 Statutory Sites

There were two sites of European importance within 10km of the study area. There was one site of Local Importance within 2km. See **Tables 4.1** and **4.2** for summaries.

The site falls within the Wimbledon Common SSSI impact risk zone. However, the development does not meet criteria for impacts that would likely lead to a significant effect on this SSSI. Therefore, no consultation with Natural England and no specific mitigation are required for this SSSI.

There were habitats within the site with suitability for stag beetle *Lucanus cervus*, which is a qualifying feature of both Wimbledon Common and Richmond Park. However, it is understood that the development will avoid areas of woodland which held suitability for stag beetle.

Due to the small-scale size, location and nature of application site the proposed development is highly unlikely to have a significant effect on any European site (either alone or in combination with other plans or projects). Further, it is not directly connected with or necessary to the management of such sites. No further assessment is recommended for statutory conservation sites.

No further actions for statutory sites are recommended.

Site Name	Distance and Direction from Site	Area (ha)	Reasons for Designation	
Wimbledon Common 5.9km W 348.31 SAC SSSI		348.31	The site comprises Northern Atlantic wet heathland and European dry heath habitats. The primary reason for designation is the Annex II species: stag beetle. Wimbledon Common supports the most extensive area of open, wet heath on acidic soil in Greater London, and also contains a variety of other acidic heath and grassland communities reflecting variation in geology, drainage and management. Associated with these habitats are a number of plants uncommon in London. Other habitats include semi-natural woodland, streams and ponds.	
Richmond Park SAC	8km W	846	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 and is a site of national importance for the conservation of the fauna of invertebrates associated with the decaying timber of ancient trees.	

#### **Table 4.1:** Designated sites of European importance within 10km of the application site.

Site Name	Distance & Direction from Site	Area (ha)	Reasons for Designation
Streatham Common LNR	1.4km SE	13.77	Streatham Common is a large open space. It has areas of woodland, grassland, wild flower meadows and a picnic area.

Table 4.2: Statutory site of National importance within 2km of the study area.

#### 4.1.2 Non-Statutory Sites

Non-statutory sites designated for nature conservation that were located within 1km of the application site are provided in **Table 4.3**. SINCs are of are of **metropolitan**, **borough or local importance**.

The site is located within the Tooting Common SINC which is of **metropolitan importance**. Without management of construction operations there is potential for building works to cause minor disturbance to woodland habitats within the SINC.

Precautionary measures are therefore recommended in Section 5.

Site Name	Distance & Direction from Site	Area (ha)	Reasons for Designation	
Tooting Common, Metropolitan	On Site	82.78	The site is a large area of open space with extensive areas of woodland and grassland, the site contains acid grassland, a pond, scrub and secondary woodland.	
Railsides around Streatham Junction, Borough Grade 2	100m S	3	The railways add up to substantial areas of wildlife habitat and provides important wildlife corridors.	
Churchyard of St Leonard's Streatham, Local	450m SE	0.51	The churchyard of Streatham's parish church and the best preserved of Lambeth's original village churchyards. The site includes scattered trees, unimproved neutral grassland and vegetated walls.	
Railway Linesides – Tooting Bec to Eardley Road, Borough	600m S	3.69	An impressive range of vegetation along the side of rail tracks in the south of Lambeth borough.	
Railway Linesides – Streatham Cuttings, Borough importance	1km SE	2.97	An area of wildlife habitat comprising reed bed, scrub, secondary woodland and semi-improved neutral grassland.	
Railway Linesides – Streatham Hill, Borough	1km NE	2.79	An important area of wildlife habitat comprising reed bed, scrub, secondary woodland and semi-improved neutral grassland.	

Table 4.3: Non-statutory sites within 1	1km of the application site.
---	------------------------------

### 4.2 Habitats

The habitats below were recorded within the site during the survey. Habitat types are described below and shown on the Phase I Habitat Map (**Appendix 1**).

- Buildings
- Hard-standing
- Dense scrub
- Broadleaved Woodland

#### 4.2.1 Buildings

A description of the buildings within the site is provided in relation to their bat roosting suitability in **Section 4.3.3**.

#### 4.2.2 Hard-standing

A hard-standing parking area, footpaths and a sunbathing area were recorded within the site. These areas of habitat are of **negligible** importance (**Photo 4.1**) and are not therefore considered any further within this assessment.



**Photo 4.1:** Hard-standing to the west of the existing pump house.

#### 4.2.3 Scrub

Within the south-west of the site was an area of dense scrub. The scrub was dominated by bramble *Rubus fruticosus* which is ubiquitous in its range and occurrence; however, this particular stand of scrub was considered important within the context of the site due to the urban location and potential to benefit other species such as nesting birds. It is understood this area of scrub is to be retained.

No further actions have been recommended.



Photo 4.2: Bramble dominated scrub within the west of the site.

#### 4.2.4 Broadleaved Woodland

An area of broadleaved woodland was present within the southern section of the site. The trees were predominantly early mature and the canopy layer was dominated by oak *Quercus robur*. Other species included ash *Fraxinus excelsior*, sycamore *Acer pseudoplatanus*, hawthorn *Crataegus monogyna*, elm *Ulmus* sp., bullace *Prunus* sp. and horse chestnut *Aesculus hippocastanum*. The ground flora comprised bramble, ivy *Hedera helix*, cow parsley *Anthriscus sylvestris*, holly *Ilex aquifolium*, dock *Rumex obtusifolius* and cleavers *Galium aparine*. The woodland was listed as Local and National priority native broadleaved woodland (Natural England, 2019), which is a BAP habitat. Native broadleaved woodland is uncommon in the Greater London area, and therefore this feature was considered to be of **Metropolitan** importance. It is understood that this feature is to be retained.

Measures to avoid impacts to this habitat during construction works are recommended in **Section 5**.



Photo 4.3: Broadleaved woodland facing east.

#### 4.3 **Protected and Notable Species**

Records of protected / notable species for the last ten years have been considered within the assessment below. Older records have been considered where appropriate. None of the records pertain to the site.

#### 4.3.1 Invertebrates

GiGL returned 232 records of stag beetle *Lucanus cervus*, with the nearest record was 15m north and the most recent from 2018. There was also one record for Roman snail *Helix pomatia* 460m north-west from 2015, both species are listed on *Schedule 5* of the *WCA*. Recent records of Section 41 (NERC Act, 2006) moths and butterflies included; the white-letter hairstreak *Satyrium w-album* and the knot grass *Acronicta rumicis*. The nearest record of white-letter hairstreak was c. 700m north and most recent from 2016.

Broadleaved woodland and small areas of partially buried deadwood with potential to support stag beetle were present within the site (**TN1**, **Appendix 1**). The habitats within the site which are likely to support stag beetle are to be retained within the current proposal.

Limited nectaring opportunities were available for butterflies within the site and the elm tree in the broadleaved woodland which may provide breeding opportunities of the white-letter hairstreak is to be unaffected by the works. There were no noted areas rich in chalk or limestone to support the roman snail. The site was therefore considered to hold **negligible** potential for other rare / notable invertebrates.

No further actions or surveys are recommended.



Photo 4.4: Deadwood present within the south of the site

#### 4.3.2 Amphibians

GiGL held no records of great crested newt. There were two records of common toad, with the nearest 900 metres north-west (2013). No ponds were located on site or within 250m of the site boundary (Natural England, 2019).

Case Reference	Type of Site	Distance & Direction	Licence Start & End Dates
EPSM2012-3977	Resting Place	230m SE	03/07/2012 to 30/06/2016

Table 4.3: Granted great crested newt mitigation licence application within 2km of the site

The habitat to be affected by the proposed works consisted of a building and hardstanding only which held **negligible** potential for foraging and commuting newts. The site also contained broadleaved woodland that represents good quality terrestrial habitat for foraging, sheltering, commuting, and hibernating amphibians. Woodland habitat is to be retained and will not be affected by the current proposals.

No further actions or surveys are recommended.

#### 4.3.3 Reptiles

GiGL returned no recent reptile records. According to GiGL's reptile atlas, the area of London was considered to have habitat with very high suitability for reptiles (Greenspace Information for Greater London, 2019). The woodland lacked suitable edge habitat that reptiles such as common lizard *Zootoca vivipara*, grass snake *Natrix helvetica* and slow worm *Anguis fragilis* typically require and is to be retained. The area to be impacted by works was dominated by hardstanding and a building which held **negligible** suitability for reptiles.

No further actions or surveys are recommended.

#### 4.3.4 Birds

GiGL returned several records of bird species listed as Annex I (Birds Directive), Schedule 1 (*WCA*) and / or of Conservation Concern (RSPB) **Appendix 4**. The majority of notable species had been recorded from Tooting Bec Common within which the site is located.

The following birds were incidentally recorded during the survey: robin *Erithacus rubecula*, crow *Corvus corone*, long-tailed tit *Aegithalos caudatus*, great tit *Parus major*, wren *Troglodytes troglodytes*, blue tit *Cyanistes caeruleus*, blackbird *Turdus merula*, wood pigeon *Columba Palumbus* and ring-necked parakeet *Psittacula karmeri*.

Bird interest (nesting / foraging) is likely to be confined to the scrub, trees and the building. The protected bird species recorded within the common are unlikely to breed within the habitats present on site. The site was therefore considered to hold **high** potential for widespread species of nesting bird. The site overall was, however, considered to hold **negligible** potential for significant bird species and assemblages.

Further action for nesting birds is recommended in **Section 5**.

#### 4.3.5 Badgers

GiGL returned no records of badgers. No badger setts or signs of badger were recorded on or within 30m of the site boundary. The woodland within the south of the site provided foraging habitat for badger, although the site was separated from the adjacent railway line by a metal security fence. The northern part of the site was considered to hold **negligible** potential for foraging and commuting badgers as it consisted of a fenced area of hardstanding and buildings only.

No further actions for badgers are recommended.

#### 4.3.6 Bats

The table below lists bat records returned from GiGL within 2km of the site for the past ten years.

Table 4.4: Bat	records within	2km of the	site for the	last ten years.

Bat Species	Protection	Nearest and Most Recent Records
Common pipistrelle Pipistrellus pipistrellus	CHSR <sup>1</sup> ; WCA <sup>2</sup> .	13 records, the nearest 320m W, the most recent from 2015.
Soprano pipistrelle Pipistrellus pygmaeus	CHSR, WCA; SPIE <sup>3</sup> .	3 records, the nearest and most recent (2013) 80m N.
Noctule Nyctalus noctula	CHSR, WCA; SPIE	1 record, 390m W from 2015.

#### 4.3.6.1 Roosting (Trees)

Two mature trees (an oak and a hawthorn) within the broadleaved woodland had potential roost features (PRFs) and were of **low suitability** for roosting bats (**TN2, TN3, Appendix 1**). All, other trees surveyed on site contained **negligible** suitability for roosting bats as they lacked suitable features.

Lighting precautions for the low potential trees are recommended in **Section 5**.



Photo 4.5: Mature oak tree with low roost potential

#### 4.3.6.2 Roosting (Buildings)

The relevant buildings on site have been described below. Refer to **Appendix 1** for the building location.

#### Pump House

A single storey pump house building that measured approximately W x 9m by L x 22m by H x 5m. The building was of brick construction with a bitumen felt covered, metal, flat roof. The

<sup>&</sup>lt;sup>1</sup> Conservation of Habitats and Species Regulations 2017.

<sup>&</sup>lt;sup>2</sup> Wildlife and Countryside Act 1981 (as amended).

<sup>&</sup>lt;sup>3</sup> Species of Principal Importance in England of Section 41 of the Natural Environmental and Rural Communities Act (NERC), 2006.

building was generally sealed, and no potential access points for bats were noted. Internally the building was light and subject to constant noise from machinery. No evidence of bats was noted on or within the building. The pump house was considered to be of **negligible suitability** for roosting bats.



No further actions for bats roosting within buildings are recommended.

Photo 4.6: Pump house, south western elevation.



Photo 4.7: Pump house, internal, facing south west.

#### 4.3.6.3 Foraging and Commuting

Suitable habitat for foraging and commuting bats was recorded within the site. Habitats included woodland which connected to similar habitats within the wider area. London is highly urbanised with high levels of street lighting which decreases the likelihood of light-sensitive bat species such as myotis *Myotis* sp. being present. The site was therefore considered to hold **low** suitability for foraging and commuting bats and is likely to be used by small numbers of common bat species. However due to the small-scale size of the proposed works, further surveys would be unlikely to uncover any further useful information with regards to mitigation.

Lighting precautions for foraging and commuting bats have been recommended in Section 5.

#### 4.3.7 Hazel Dormouse

The GiGL did not return any records for dormice. The site was located close to the centre of London where dormice are not located, due to high levels of disturbance and habitat fragmentation. The site was therefore considered to hold **negligible** potential for dormice.

No further surveys or actions are recommended.

#### 4.3.8 Invasive Plants

No invasive plant species listed under Schedule 9 of the *WCA* or on the London Invasive Species Initiative (LISI) were noted on site during the survey.

No further action has therefore been recommended

#### 4.3.9 Hedgehogs and Other BAP / Rare Species

The GiGL returned two historic records of hedgehog *Erinaceus europaeus*. Some areas of habitat had **high** potential for hedgehogs, including the woodland for foraging and margins of the dense scrub for shelter. The habitat to be affected by the proposed work held **negligible** suitability for hedgehog (hard-standing and a building), precautions have been recommended to avoid causing inadvertent harm to small mammals. Suitable habitat was present in the local wildlife site.

General precautions for nocturnal mammals are recommended in Section 5.

## 5 Impact Assessment

This section characterises the impacts and the subsequent effects (both positive and negative) of the proposed development on the important ecological features within the site. It also sets out avoidance, mitigation, compensation and enhancement measures, and assesses the significance of any residual effects (both positive and negative) of the development on these features.

It is recommended that the mitigation measures identified in **Section 5.1** onwards will be incorporated into the detailed design proposals for the Scheme and implemented as part of the overall development of the application site.

#### 5.1 Site of Importance for Nature Conservation (SINC)

#### **Potential Impacts**

The proposed development will occur within Tooting Common SINC. The woodland habitat within the southern part of the site also held potential for nesting birds, invertebrates, small mammals and amphibians. Without mitigation, works during the construction phase have potential to damage SINCs, BAP habitat and harm or disturb protected species.

#### Mitigation

All works will be confined to areas of hard-standing. There will be no clearance of, or access to adjacent vegetation including trees, scrub and woodland ground flora.

Prior to works commencing, a biodiversity protection zone will be established to protect adjacent woodland. Heras fencing or similar will be installed around the woodland edge in order to prevent personnel access and direct disturbance of woodland habitats during works. Fencing will remain in place until all construction activities on site have ceased.

The biodiversity protection zone fencing will be inspected weekly. The results of these inspections will be recorded. Any defects or damage will be reported and quickly repaired.

The presence of priority woodland will be formally communicated to all site operatives via a toolbox talk or similar induction. Workers will be made aware of the extent of the biodiversity protection zone and the need to avoid disturbing the woodland habitat.

The spread of litter, debris and dust into adjacent woodland will be minimised through the use of appropriated screening e.g. debris 'containment' netting or 'monarflex' sheeting fixed to site fencing.

Bins and skips used during the construction phase will have lids or be otherwise covered to prevent materials escaping into the surrounding woodland.

To ensure that no dust or other pollutants can travel into the woodland appropriate measures will be included in the Construction Working Method Statement. These could include the provision of spill kits and the use of dust suppression or extractors as appropriate.

All works will be confined to daylight hours to minimise noise and light disturbance to dormice. Any necessary security lighting will be set on short timers with sensitivity to large moving objects only. Hoods, cowls or directional lamps will be used to avoid light being directed towards boundary vegetation.

#### Significance of Residual Effects

It is anticipated that the construction phase of the development will be small in scale and short in duration. No significant effects on the woodland or SINC are anticipated if this mitigation and the general mitigation measures in this section are implemented.

#### 5.2 Foraging and Commuting Bats

#### **Potential Impacts**

Any lighting associated with the construction and post-completion phases has the potential to disrupt foraging activity within the woodland for any bat species sensitive to light such as Myotis and long-eared bats.

#### Mitigation

The following measures should be implemented within the development to reduce impacts on foraging and commuting bats caused by artificial lighting (ILP, 2018):

- Avoid illuminating habitat which may be used by light averse species for commuting and foraging;
- Direct any task lighting used during construction away from the woodland; notably the trees with potential to support the bat roost;
- Set any necessary security lighting on short timers (e.g. 1 minute) with a sensitivity to large moving objects only;
- Directional lighting or shielding such as hoods or cowls should be used to avoid light being directed at the sky or towards the boundary vegetation;
- Limit lighting times to provide dark periods;
- LED luminaires are preferred due to the lower intensity, sharp 'cut-off', colour rendition and dimming capability;
- All luminaires should lack UV elements and metal halide fluorescent sources should not be used. Avoid white and blue wavelengths of the light spectrum and keep the brightness of the lamps as low as feasibly possible; and
- Carefully consider the height of columns to avoid light spill.

Post-completion lighting surveys may be required to confirm that the proposed lighting levels, luminaire heights, design and shielding have been achieved.

#### Significance of Residual Effects

The incorporation of mitigation measures detailed above will prevent inadvertent disturbance to foraging and commuting bats. It is therefore anticipated that during construction and operation, there will be no significant effects on foraging and commuting bats.

#### 5.3 General Avoidance and Mitigation Measures

The following will be implemented during the construction phase of the development to comply with national and local planning policy, current legislation and best practice:

• General measures to avoid or minimise any negative effects on ecological receptors including following the pollution prevention guidelines (PPG) and CIRIA guidelines;

- The building should be cleared between September and February (inclusive) to avoid the breeding bird season. Alternatively, an ecologist will check potential nesting habitat immediately before clearance if it is scheduled during the breeding season (March to August inclusive). Any active nests identified will be retained in situ with a suitable buffer until the ecologist has confirmed that the chicks have fledged and the nest is no longer active;
- Protection of retained trees close to the proposed works, including the installation of root protection areas where required during construction with Heras fencing in line with Trees in Relation to Design, Demolition and Construction – Recommendations BS5837:2012 (BSI, 2012);
- Cover any trenches, holes or deep pits overnight, or use secured planks to allow any animals that fall in to escape during construction. A member of staff should check the site at the end of each working day to ensure that these provisions to protect nocturnal species (such as hedgehog) have been made; and
- Materials will be stored off the ground on pallets to prevent reptiles from taking refuge under them.

#### 5.4 Enhancements

The recommendations below are designed to enhance the value of the site for wildlife, as encouraged through the National Planning Policy Framework, and to help achieve local BAP targets (see **Appendix 2**):

The recommendations below are designed to enhance the value of the site for wildlife, as encouraged through the National Planning Policy Framework, and to help achieve London BAP targets:

- Fit a biodiverse green roof onto the new pump house building to provide gains in green cover, and nectaring opportunities for invertebrates (GRO, 2014). This should be sown with an appropriate seed mix e.g. Emorsgate ER1 turf roof mixture and could have varying substrate depths across the roof deck to promote a diversity of plants. Pebbles, boulders, gravels, sands branches and logs may also be placed within the roof system to offer suitable habitats;
- Install two Schwegler 1B General Purpose Bird Boxes onto the new building or on trees within the woodland. Fit the boxes at least 3m above the ground, avoiding direct sunlight (not directly south-facing) and prevailing wind;
- 3) Install one Schwegler 1SP Sparrow Terrace. These can be surface mounted or integrated within buildings and would provide valuable nesting sites for the declining red listed house sparrow. Fit the terraces in small groups at least 3m above the ground, avoiding direct sunlight (not directly south-facing) and prevailing wind;
- 4) Install one Schwegler IFF or 2F Bat Box onto a retained suitably mature tree or new building to enhance roosting opportunities within the site for bats. Typically bat boxes are installed at least 5m above the ground facing in a southerly direction to receive sun for part of the day. Locations close to artificial lighting are to be avoided, ideally boxes will be located adjacent to commuting or foraging habitat such as lines of trees or hedgerows. Clear access for bats to the boxes should be maintained over the longer term which may involve light intervention (e.g. the pruning of over-hanging branches or

ivy). Always consult with an experienced bat ecologist regarding the installation and positioning of bat boxes;

- 5) Create a log pile within the woodland, by filling a hole (c. 2m by 1m in extent and up to 50cm deep) with wood from native hardwood species to provide reptile and amphibian refuge and hibernation opportunities. Locate in an area that will be minimally disturbed on completion. Dead wood habitats provide important egg laying and larval habitat for invertebrates (notably stag beetle) and refugia / foraging for small mammals and amphibians; and
- 6) Avoid use of pesticides and use environmentally safe wood preservatives (for sheds and fences etc.).

# 6 Conclusion

Land within the site which will be affected by development works was dominated by hardstanding and a building which were of negligible ecological importance. With management the development can proceed without impacting adjacent woodland.

The development can proceed with minimal impact to habitats and protected / notable species assuming the mitigation measures outlined within **Section 5** are implemented.

There is also the opportunity to enhance the development for local wildlife in the long-term by implementing the enhancement measures.

## 7 References

Andrews, H. L., 2018. *Bat Roosts in Trees: A guide to identification and assessment for tree-care and ecology professionals.* Exeter: Pelagic Publishing.

Bright, P., Morris, P. & Mitchell-Jones, A., 2006. *The Dormouse Conservation Handbook.* 2nd ed. Peterborough: English Nature.

BSI, 2013. *BS 42020:2013 Biodiversity - Code of practice for planning and development,* United Kingdom: British Standards Institution.

CIEEM, 2017. *Guidlines for Preliminary Ecological Appraisal.* 2nd ed. Winchester: Chartered Institute of Ecology and Environmental Management.

CIEEM, 2018. *Guidlines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal.* 3rd ed. Winchester: Chartered Institute of Ecology and Environmental Management.

Collins, J., 2016. *Bat Surveys for Professional Ecologists: Best Practice Guidelines.* 3rd ed. London: The Bat Conservation Trust.

Froglife, 1999. *Froglife Advice Sheet 10 Reptile Survey: An Introduction to Planning, Conducting and Interpreting Surveys for Snake and Lizard Conservation.* Peterborough: Froglife.

Gent, A. & Gibson, S., 2003. *Herpetofauna Workers' Manual.* Peterborough: Joint Nature Conservation Committee.

Greenspace Information for Greater London, 2019. *Amphibians & Reptiles Atlas.* [Online] Available at: <u>https://www.gigl.org.uk/atlas/amphibians-reptiles-atlas/</u> [Accessed 18 March 2019].

GRO, 2014. *The GRO Green Roof Code: Green Roof Code of Best Practice for the UK 2011.*. Sheffield: Groundwork.

Harris, S., Cresswell, P. & Jeffries, D., 1989. Surveying Badgers. In: *An occasional publication of the mammal society - No. 9.* London: Mammal Society .

HMSO, 1981. The Wildlife and Countryside Act, London: Her Majesty's Stationery Office.

HMSO, 1992. Protection of Badgers Act, London: Her Majesty's Stationery Office.

HMSO, 1996. Wild Mammals (Protection) Act, London: Her Majesty's Stationery Office.

HMSO, 1997. The Hedgerow Regulations, London: Her Majesty's Stationery Office.

HMSO, 2000. The Countryside and Rights of Way (CRoW) Act, London: Her Majesty's Stationery Office.

HMSO, 2005. *Biodiversity and geological conservation:circular 06/2005,* London: Department for Communities and Local Government.

HMSO, 2006. *Natural Environment and Rural Communiuties Act (NERC Act),* London: Her Majesty's Stationery Office.

HMSO, 2017. *The Conservation of Habitats and Species Regulations,* London: Her Majesty's Stationery Office.

ILP, 2018. Bats and Artificial Lighting in the UK, bats and the built environment series - Guidance Note 08 / 18, London: The Bat Conservation Trust / Institute of Lighting Professionals.

JNCC, 2010. Handbook for Phase I Habitat Survey: a technique for environmental audit (revised reprint), Peterborough: JNCC.

Langton, T., Beckett, C. & Foster, J., 2001. *Great Crested Newt Conservation Handbook.* Halesworth: Froglife.

MHC&LG, 2019. National Planning Policy Framework,, London: Her Majesty's Stationery Office.

Natural England, 2015. *Deciduous Woodland Priority Habitat Inventory for England, Version 2.1,* Telford: Habitat Inventory Team, Natural England.

NaturalEngland,2019.MAGICMapApplication.[Online]Available at:<a href="http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx">http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx</a>

Richmond and Wandsworth SSA Design Service, 2019. *Tooting Bec Lido Plant Room, Proposed Plan, dwg no: CP286-1901-A-DWG-210-R01T Rev 1,* London: Richmond and Wandsworth SSSA Design Service.

# Appendix 1 Phase I Habitat Map



	Legend
	Site boundaryBuildingHardstandingDense ScrubBroad-leaved WoodlandFenceImage Note
F	Project
Т	ooting Bec Lido
7	<i>Title</i>
Ρ	Phase 1 Habitat Map
C	Client
V	Vandsworth Borough Council
	agb Environmental Ltd         Newmarket Business Centre, 341 Exning Road,         Newmarket. CB8 0AT         Tel: 01638 663 226         Email: Info@agbenvironmental.co.uk         Web: www.agbenvironmental.co.uk
	Scale NTS
F	Project number . Drawing number P3288.3.0
	© copyright agb Environmental

# Appendix 2 Legislation & Planning Policy

#### **Legislation**

#### **Conservation of Habitat and Species Regulations (CHSR)**

The *CHSR 2017* transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive) into English law, making it an offence to deliberately capture, kill or disturb wild animals listed under Schedule 2 of the Regulations. It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time).

#### Wildlife & Countryside Act (WCA)

The WCA 1981, as amended by the Countryside and Rights of Way Act (CRoW) 2000 and the Natural Environment and Rural Communities Act (NERC) 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act; intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act; intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act.

Sites of Special Scientific Interest (SSSI) are designated under this Act.

Special Protection Areas (SPA) are strictly protected sites, designated under the Birds Directive, for rare and vulnerable birds and for regularly occurring migratory species.

#### Natural Environment & Rural Communities (NERC) Act

The NERC Act 2006 amends the CRoW Act, by further extending the requirement to have regard for biodiversity to all public authorities, which includes local authorities and local planning authorities and requires that the Secretary of State consults Natural England (NE) in the publication of the list of living organisms and habitat types deemed to be of principal importance in conserving biodiversity.

#### **Relevant Protected Species Legislation**

Species	Relevant Legislation	Level of Protection
Reptiles (adder, grass snake, common lizard & slow-worm)	Partially protected under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended).	<ul> <li>It is an offence to:</li> <li>intentionally kill or injure these animals.</li> <li>sell, offer for sale, advertise for sale, possess or transport for the purposes of selling any live or dead animals or part of these animals.</li> </ul>
Birds	Protection under the <i>Wildlife and</i> <i>Countryside Act, 1981 (as amended).</i>	<ul> <li>It is an offence to:</li> <li>intentionally kill, injure or take any wild bird.</li> <li>intentionally take, damage or destroy nests in use or being built (including ground nesting birds).</li> <li>intentionally take, damage or destroy eggs.</li> <li>Species listed on Schedule 1 of the WCA or their dependant young are afforded additional protection from disturbance whilst they are at their nests.</li> </ul>
Bats	European protected species under the Conservation of Habitats and Species Regulations 2017. Full protection under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended). Protected by the Wild Mammals (Protection) Act 1996.	<ul> <li>It is an offence to:</li> <li>intentionally kill, injure, or take any species of bat.</li> <li>intentionally or recklessly disturb bats.</li> <li>intentionally or recklessly damage destroy or obstruct access to bat roosts.</li> </ul>
Wild Mammals	The Wild Mammals (Protection) Act 1996.	<ul> <li>This makes it an offence to:</li> <li>crush or asphyxiate any wild mammal with intent to inflict unnecessary suffering.</li> <li>This may apply during site clearance for development, particularly where burrowing animals such as foxes and rabbits are present, since such animals could be crushed or asphyxiated in their burrows by heavy machinery.</li> </ul>

#### **National Planning Policy**

#### National Planning Policy Framework (NPPF)

The NPPF sets out current government policy on biodiversity and nature conservation and places a duty on planners to make material consideration to the effect of a development on legally protected species when considering planning applications (MHC&LG, 2019). The NPPF also promotes sustainable development by ensuring that developments take account of the role and value of biodiversity and that it is conserved and enhanced within a development.

The NPFF works in conjunction with Government Circular *06/2005* 'Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System.'

#### **Regional and Local Planning Policy and Guidance**

#### Local Structure Plans

County, District and Local Councils have Structure Plans and other policy documents that include targets and policies which aim to maintain and enhance biodiversity. These are used by Planning Authorities to inform planning decisions.

#### **Biodiversity Action Plans**

The UK Biodiversity Action Plan (UKBAP) was organised to fulfil the Rio Convention on Biological Diversity in 1992, to which the UK is a signatory. A 'UK Post-2010 Biodiversity Framework' was published in July 2012, and succeeded the UKBAP. Much of the work for the UK BAP is now focussed at a country level due to devolution and the creation of country-level biodiversity strategies.

The UKBAP lists of priority species and habitats are still valuable reference sources. Notably, they have been used to help draw up statutory lists of priority species and habitats as required under Section 41 of the NERC act.

#### London Biodiversity Action Plan

The Local Habitat and Species Action Plans were first produced in 1999, with subsequent revisions. A list of all species for London are listed online at https://www.gigl.org.uk/londons-biodiversity-action-plan/ (accessed 18/03/19).

#### UK Post-2010 Biodiversity Framework

The UK Post-2010 Biodiversity Framework (2012) was produced in response to a change in strategic thinking following the publication of the Convention of Biological Diversity's Strategic Plan for Biodiversity 2011–2020. The Strategic Plan consists of 20 new biodiversity targets for 2020, termed the 'Aichi biodiversity targets' and the launch of the new EU Biodiversity Strategy in May 2011.

The framework sets a structure for action across the UK between now and 2020, including a shared vision and priorities for UK-scale activities to help deliver the Aichi targets and the EU Biodiversity Strategy. A major commitment by Parties to the Convention of Biological Diversity is to produce a National Biodiversity Strategy and/or Action Plan (NBSAP).

#### **Natural England Standing Advice**

Natural England has adopted national standing advice for protected species. It provides a consistent level of basic advice which can be applied to any planning application that could affect protected species. It replaces some of the individual comments that Natural England has provided in the past to local authorities.

# Appendix 3 Characterising the Suitability of Habitats for Bats

#### Table A3.1: Classifying the bat roosting suitability of buildings (Collins, 2016).

Negligible roosting suitability	Negligible habitat features within the site likely to be used by roosting bats.
Low roosting suitability	A structure with one or more features that could be opportunistically used by individual bats. Unlikely to support maternity or hibernation roosts.
Moderate roosting suitability	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat (unlikely to support roosts of high conservation status).
High roosting suitability	A structure 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.
Confirmed roost	Evidence of bat occupation found.

#### Table A3.2: Classifying the bat roosting suitability of trees (Collins, 2016).

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

Negligible	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	<ul><li>Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or un-vegetated stream, but isolated or poorly connected to habitat in the surrounding landscape.</li><li>Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in parkland) or a patch of scrub.</li></ul>
Moderate	Continuous habitat connected to the wider landscape that bats may use for commuting such as tree-lines and scrub or linked back gardens. Habitat that connects to the wider landscape that bats may use for foraging such as trees, scrub grassland and water.
High	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, tree-lines and woodland edge. High quality habitat that is well-connected to the wider landscape that is likely to be used regularly by commuting bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

Table A3.3: Classifying the suitability of bat foraging and commuting habitat (Collins, 2016).

# Appendix 4 Bird Species Recorded Within 2km of the Site

Table A4: Protected and endangered bird species recorded within 2km of the site.

Scientific Name	Common Name	Designations	Number of Records	Date of Most Recent Record
Acanthis cabaret	Lesser Redpoll	NERC Act Section 41 UKBAP Bird-Red	6	12/02/2011
Alauda arvensis	Skylark	NERC Act Section 41 BAP Priority London Local Spp of Cons Conc Bird-Red	3	18/09/2009
Aythya ferina	Pochard	Bird-Red	18	25/01/2014
Coccothraustes coccothraustes	Hawfinch	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc Bird-Red	1	13/04/2013
Cuculus canorus	Cuckoo	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc Bird-Red	1	23/04/2015
Dendrocopos minor	Lesser Spotted Woodpecker	BAP Priority London Local Spp of Cons Conc Bird-Red	92	19/04/2012
Emberiza calandra	Corn Bunting	BAP Priority London Local Spp of Cons Conc Bird-Red	1	17/01/2015
Ficedula hypoleuca	Pied Flycatcher	Bird-Red	5	06/05/2012
Larus argentatus	Herring Gull	BAP Priority London Local Spp of Cons Conc Bird-Red	200	21/07/2015
Larus melanocephalus	Mediterranean Gull	Birds Dir Anx 1 W&CA Sch1 Part 1	1	08/02/2011
Milvus milvus	Red Kite	Birds Dir Anx 1 W&CA Sch1 Part 1	1	12/05/2015
Motacilla cinerea	Grey Wagtail	Local Spp of Cons Conc Bird-Red	30	28/10/2014
Motacilla flava	Yellow Wagtail	BAP Priority London Local Spp of Cons Conc Bird-Red	2	Sep 2004
Muscicapa striata	Spotted Flycatcher	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc Bird-Red	9	26/08/2013
Passer domesticus	House Sparrow	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc Bird-Red	251	21/07/2015
Saxicola rubetra	Whinchat	Bird-Red	2	07/05/2009
Scolopax rusticola	Woodcock	Local Spp of Cons Conc Bird-Red	2	15/01/2012
Sterna hirundo	Common Tern	Birds Dir Anx 1 Local Spp of Cons Conc	24	27/04/2010
Sturnus vulgaris	Starling	BAP Priority London Local Spp of Cons Conc Bird-Red	314	27/08/2015

Scientific Name	Common Name	Designations	Number of Records	Date of Most Recent Record
Turdus iliacus	Redwing	W&CA Sch1 Part 1 Bird-Red	144	06/04/2015
Turdus philomelos	Song Thrush	BAP Priority London Local Spp of Cons Conc Bird-Red	239	21/07/2015
Turdus philomelos subsp. clarkei	Song Thrush	NERC Act Section 41 UKBAP BAP Priority London Local Spp of Cons Conc Bird-Red	2	19/02/2013
Turdus pilaris	Fieldfare	W&CA Sch1 Part 1 Bird-Red	20	26/01/2013
Turdus viscivorus	Mistle Thrush	Local Spp of Cons Conc Bird-Red	241	27/05/2015