Wandsworth Estate - Battersea Church Road/Crewkerne Garages

Ecological Appraisal

For Wandsworth Borough Council

August 2019

11th Floor, 1 Angel Court, London, EC2R 7HJ

020 7250 7783

ecology@wyg.com

Document Control

Project:	Wandsworth Estate - Battersea Church Road/Crewkerne Garages
Client:	Wandsworth Borough Council
Job Number:	A100140-36
File Origin:	\\lds-dc-vm-002\Group Ecology\Projects\Projects A100000 on\A100140-36 Wandsworth Estate Renewal Tender\REPORTS\Battersea Church Road

Version 1	15th August 2019	FINAL
Prepared by:		Georgia Alfreds ACIEEM **Project Ecologist**
Checked By:		Richard J Penson MCIEEM **Project Ecologist**
Verified By:		Vivienne Greenough MCIEEM **Associate Ecologist**

Version:	Date:	Updated by:	Verified by:	Description of changes:
V2	28/10/19	Jo Sykes	Vivienne Greenough	Minor edits to report wording

Contents

Executive Summary

Contents	Summary
Site Location	Battersea Church Road/Crewkerne Garages, Crewkerne Court, Bolingbroke Walk, Battersea, London, centred on Ordnance Survey National Grid Reference: TQ 26947 76961 (nearest post code SW11 3TS).
Proposals	The proposals for this site are for a mixed tenure residential use development. This will contribute towards implementing the Council's strategic commitment to build 1,000 homes on its own landholdings of which up to 60% will be affordable housing and 40% market housing intended for sale to purchasers who will own and occupy.
Scope of this Survey(s)	WYG was commissioned by Wandsworth Borough Council on 6th June 2019 to undertake an Ecological Appraisal of the site known as Battersea Church Road/Crewkerne Garages. The survey involved an extended Phase 1 habitat survey of the site to record habitat types and dominant vegetation, including any invasive species, and a reconnaissance survey for evidence of protected fauna or habitats capable of supporting such species. The survey was carried out on 4th July 2019 by WYG Project Ecologist Georgia Alfreds BSc MSc ACIEEM.
Results	There are no SACs or SPAs within 2km of the site. There are nine SINCs within 1km of the site, the closest of which is River Thames and Tidal Tributaries, 0.3km north-east of the site. Seven habitats were recorded on-site including introduced shrub, scattered trees, species-poor hedgerow, amenity grassland, hardstanding, buildings and 'other' habitat. The site was found to be suitable for the following habitats and protected and notable species: • The site is assessed as having **moderate** potential to support common species of nesting and foraging birds. • The site assessed as having **low** potential to support various invertebrates. • An **invasive species**, false acacia is present on the site (TN8): a category 3 LISI species, not listed on Schedule 9 of the W&CA but considered invasive by all London Boroughs.
Recommendations	Mitigation recommendations include: • Where removal of bird breeding habitat is required and cannot be carried out outside of the bird breeding season, a suitably experienced ecologist should check for active bird nests immediately prior to demolition or clearance of vegetation or buildings (within 48 hours); • It is recommended that the false acacia is removed from the site; and

	• Reducing the artificial lighting/lighting to be designed more sensitively for bats and other wildlife. Recommended ecological enhancements in the event of development would be as follows: • The incorporation of roosting features for bats within the site. For example, bat boxes/bat tubes. New roosts should not be subject to direct lighting; • Install bird boxes for house sparrow; and • The inclusion of targeted UK species planting into the new landscaping for the site. Insect attracting plants should be chosen to increase the food availability to bats and other wildlife.

Glossary

ACIEEM	Associate Member of the Chartered Institute of Ecology & Environmental Management
BCT	Bat Conservation Trust
BoCC	Bird(s) of Conservation Concern
BSI	British Standard Institute
BTO	British Trust for Ornithology
CIEEM	Chartered Institute of Ecology & Environmental Management
CRoW Act	Countryside and Rights of Way Act 2000
DEFRA	Department for the Environment, Food and Rural Affairs
EcIA	Ecological Impact Assessment
ECoW	Ecological Clerk of Works
EPSL	European Protected Species Licence
GCN	Great Crested Newt
GiGL	Greenspace Information for Greater London
Habitat Regulations	Conservation of Habitats and Species Regulations 2017 (as amended)
HAP	Habitat Action Plan
Hedgerow Regulations	Hedgerow Regulations 1997
HPI	Habitat(s) of Principal Importance
HRA	Habitats Regulations Assessment
JNCC	Join Nature Conservation Committee
LBAP	Local Biodiversity Action Plan
LISI	The London Invasive Species Initiative
LNR	Local Nature Reserve
MCIEEM	Member of Chartered Institute of Ecology & Environmental Management
Natura 2000 site	A European site designated for its nature conservation value
NERC Act	Natural Environment and Rural Communities Act 2006
NNR	National Nature Reserve
NPPF	National Planning Policy Framework
RSPB	Royal Society for the Protection of Birds
SAC	Special Area of Conservation
SAP	Species Action Plan
SINC	Site of Importance for Nature Conservation
SPA	Special Protection Area
SPI	Species of Principal Importance
SSSI	Site(s) of Special Scientific Interest
W&CA	Wildlife & Countryside Act 1981 (as amended)

1.0 Introduction

1.1 Background

WYG was commissioned by Wandsworth Borough Council on 6th June 2019 to undertake an Ecological Appraisal of the site known as Battersea Church Road/Crewkerne Court Garages.

This report has been prepared by WYG Project Ecologist Georgia Alfreds BSc MSc ACIEEM and the conditions pertinent to it are provided in Appendix A.

1.2 Site Location

The 'site' is located near the south bank of the river Thames and is bounded to the north by Battersea Church Road and to the east by Bolingbroke Walk. It is situated on the Somerset Estate, Battersea, SW11 within the St Mary's Ward in Wandsworth and is centred at Ordnance Survey National Grid Reference TQ 26945 76963 (closest postcode: SW11 3TS) – see Figure 1 for the site location.

The site comprises buildings, hardstanding, a multiuse games area, amenity grassland, scattered trees, 'other' habitat and an intact hedgerow. It is currently used as open space with some recreational/sports use and 72 single storey garages. The development site is located on the edge of the estate surrounded by 3 and 4 storey purpose built residential blocks, 21 storey high-rise tower blocks and 2 or 3 storey mid-terrace houses.

1.3 Development Proposals

The proposals for this site are for a mixed tenure residential use development. This will contribute towards implementing the Council's strategic commitment to build 1,000 homes on its own landholdings of which up to 60% will be affordable housing and 40% market housing intended for sale to purchasers who will own and occupy.

1.4 Purpose of the Report

The purpose of this report is to complete:

- A desk study to obtain existing information on statutory and non-statutory sites of nature conservation interest and relevant records of protected/notable species within the site and its zone of influence;
- An extended Phase 1 Habitat Survey, involving a walkover of the site to record habitat types and dominant vegetation, including any invasive species, and a reconnaissance survey for evidence of protected fauna or habitats capable of supporting such species;
- An assessment of the potential ecological receptors present on site, identify any constraints they pose to future development and (if possible) any recommendations for any further surveys, avoidance, mitigation or enhancement measures that are needed (as appropriate).

Note that scientific names are provided at the first mention of each species and common names (where appropriate) are then used throughout the rest of the report for ease of reading.

A summary of the key legislation is also provided in Appendix B.

2.0 Methodology

2.1 Desk Study

2.1.1 Local Ecological Records Centre

Information was requested from the GiGL for information on any nature conservation designations and protected or notable species records within 1 km of the site.

The data search covered:

- Statutory designated sites for nature conservation, namely SACs, SPAs, Ramsar sites, SSSIs, NNRs and LNRs;
- Non-statutory designated sites for nature conservation, namely SINCs;
- Legally protected species, such as great crested newts *Triturus cristatus*, badger *Meles meles* and bats;
- Notable habitats and species, such as those listed as Habitats or Species of Principal Importance (HPIs or SPIs); and,
- Priority habitats or species within the Wandsworth LBAP and London BAP.

The data search did not cover:

- Tree Preservation Orders (TPOs); or
- Conservation Areas designated for their special architectural and historic interest.

Note that relevant extracts from the desk study are provided in Appendix C, as appropriate.

2.1.2 Online Resources

A search for relevant information was also made on the following websites:

- MAGIC www.magic.gov.uk - DEFRA's interactive, web-based database for statutory designations and information on any EPSL applications that have been granted in the local area since 2015.

2.2 Field Surveys

The following methodologies have been used to identify the ecological receptors present on or near the site, which are relevant to the proposed development.

2.2.1 Habitats

An extended Phase 1 habitat survey was undertaken on the site on 4th July 2019 by WYG Project Ecologist Georgia Alfreds BSc MSc ACIEEM. The weather conditions were clear and sunny; the temperature was 25°C and an easterly wind force 1 on the Beaufort scale.

The vegetation and broad habitat types within the site were noted during the survey in accordance with the categories specified for a Phase 1 Vegetation and Habitat Survey (JNCC, 2010). Dominant plant species were recorded for each habitat present using nomenclature according to Stace (2019). The site was also appraised for its suitability to support notable flora, with regard to the *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017).

2.2.2 Protected & Notable Species

The site was inspected for evidence of, and its potential to support, protected or notable species, especially those listed under the Schedule 2 of the Habitat Regulations, Schedule 5 of the W&CA, the CRoW Act, those given extra protection under the NERC Act, and species included in the London BAP.

Great Crested Newt

The site was appraised for its suitability to support GCN. The assessment was based on Guidance outlined in the *Herpetofauna Workers' Manual* (Gent & Gibson, 2003) and the *Great Crested Newt Conservation Handbook* (Langton, Becket & Foster, 2001).

Bats

Roosting Bats – Buildings / Structures / Trees

Any suitable buildings, structures or trees on site were assessed from the ground for their suitability to support breeding, resting and hibernating bats using survey methods based on the BCT *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (Collins, 2016) – hereafter referred to as the 'BCT Guidelines'. The following system has therefore been used to categorise the bat roost suitability of any features found:

Table 1 Categories of Bat Roost Suitability (BCT Guidelines)

Suitability	Typical Roosting Features
Negligible	Negligible habitat features on site likely to be used by roosting bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions 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). A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential.
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 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 & potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Foraging/commuting Bats

The BCT Guidelines use the following criteria to categorise the potential value of habitats and features for use by foraging and commuting bats and these have been used to characterise the value of this site:

Table 2 Categories of Habitat Suitability (BCT Guidelines)

Suitability	Typical Foraging & Commuting Features
Negligible	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	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. 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.
Moderate	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. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or 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, lines of trees and woodland edge. 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. Site is close to and connected to known roosts.

Reptiles

The site was appraised for its suitability to support reptiles. The assessment was based on guidance outlined in the *Herpetofauna Workers' Manual* (Gent & Gibson, 2003).

Badgers

The site was surveyed for evidence of badger setts or other badger activity such as paths, latrines or signs of foraging. Methodologies used and any setts recorded were classified according to published criteria (Harris, Cresswell & Jefferies, 1989).

Hazel Dormice

The site was surveyed for its suitability to support hazel dormice. The assessment was based on guidance outlined in Bright, Morris and Mitchell-Jones (2006).

Other Species

The site was also appraised for its suitability to support other protected or notable fauna including mammals, amphibians, birds and invertebrates with regard to the *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017) and *BS42020:2013 Biodiversity – Code of Practice for Planning and Development* (BSI, 2013). Evidence of any current or historical presence of such species was recorded.

2.2.3 Invasive Species

The site was searched for evidence of invasive plant species, such as Japanese knotweed *Reynoutria japonica* (formerly *Fallopia japonica*), Indian (Himalayan) balsam *Impatiens glandulifera*, giant hogweed *Heracleum mantegazzianum*, wall cotoneaster *Cotoneaster horizontalis* and rhododendron

Rhododendron ponticum × *Rhododendron maximum.* A full list of all invasive plant species is provided in Appendix B.

2.3 Limitations

The optimal period to undertake an extended Phase 1 habitat survey is April-September. The survey was completed in July which is inside the optimal survey window.

A 50m buffer zone for badger was assessed to the west of the site, which predominantly consists of hardstanding and buildings. To the south is a parcel of amenity grassland. The northern and eastern site boundaries are adjacent to a well-used road, limiting potential movement of badgers or other mammals to or from the site in this direction. This limitation has been considered within the assessment.

To determine presence or likely absence of protected species usually requires multiple visits at suitable times of the year. As a result, this survey focuses on assessing the potential of the site to support species of note, which are considered to be of principal importance for the conservation of biodiversity with reference to those given protection under UK or European wildlife legislation. This report cannot therefore be considered a comprehensive assessment of the ecological interest of the site. However, it does provide an assessment of the ecological interest present on the day the site was visited and highlights areas where further survey work may be recommended.

The details of this report will remain valid for a period of **two years** from the date of the survey (until July 2021), after which the validity of this assessment should be reviewed to determine whether further updates are necessary. Note that the recommendations within this report should be reviewed (and reassessed if necessary) should there be any changes to the red line boundary or development proposals which this report was based on.

3.0 Baseline Conditions

3.1 Designated Sites

The following designated sites of ecological importance have been identified within 1km of the site.

Table 3 Designated Sites Within 1km

Designation	Site Name	Distance & Direction	Summary of features
SINC (Metropolitan)	River Thames and Tidal Tributaries	0.3km NE	The mud-flats, shingle beach, inter-tidal vegetation, islands and river channel itself support many species from freshwater, estuarine and marine communities which are rare in London and is of particular importance for wildfowl and wading birds.
SINC (Metropolitan)	Battersea Park	0.6km E	Locally significant numbers of waterfowl associated with its large lake, including shoveler *Anas clypeata* and tufted duck *Aythya fuligula*.
SINC (Borough)	British Gas Pond	0.7km W	Three sides of the pond have excellent marginal vegetation, including great reedmace *Typha latifolia*, gypsywort *Lycopus europaeus*, brooklime *Veronica beccabunga* and common water-plantain *Alisma plantago-aquatica*.
SINC (Borough)	West London Line at Sands End	0.7km W	A grassy embankment, dominated by false oat-grass *Arrhenatherum elatius* with a typical range of common wild flowers and scattered bushes of butterfly-bush *Buddleja davidii*.
SINC (Borough)	Moravian Burial Ground	0.7km N	The centre of this small burial ground consists of regularly mown grassland, but the edges have been allowed to grow rather more wild, with rough grassland, stands of tall herbs and young trees.
SINC (Local)	Falcon Park and Shillington Street Open Space	0.8km SE	Two small open spaces, linked by arches in a viaduct. Large numbers of mostly native trees have been planted, forming borders of shrubs.
SINC (Local)	King's College	0.9km NW	Habitat on this SINC include scattered trees, planted shrubbery, bare soil and rock and ephemeral vegetation.
SINC (Local)	York Gardens	0.9km S	A small park with silver birch *Betula pendula* and poplar *Populus* sp. trees over low bramble *Rubus fruticosus* and ivy *Hedera helix*.

The nearest LNR is Battersea Park Nature Areas located 1.5km east of the site and comprises a planted woodland, scrub, meadow and a pond. A large fragmented parcel of wood pasture and parkland and deciduous woodland BAP HPI habitats are located 0.6km east of the site, within Battersea Park.

In addition to the above designations, the nearest Natura 2000 site is Wimbledon Common SAC, 4.8km south-west of the site which comprises wet and dry heaths.

3.2 Habitats

The following habitats have been identified through our assessment, with detailed Target Notes included in Appendix D and shown on Figure 2, as appropriate:

3.2.1 Introduced shrub

A raised bed of wood chippings, scattered trees and introduced shrubs is situated in the northern boundary of the site, adjacent to the multiuse game area (see TN1 for full species list). This habitat holds **negligible** ecological value.

3.2.2 Parkland scattered trees

Scattered trees are present along the northern boundaries of the site within the amenity grassland habitat (see TN2 for full species list, Appendix D).

False acacia *Robinia pseudacacia* is present on the site (TN8); this species is a category 3 LISI species, not listed on Schedule 9 of the W&CA but considered invasive by all London Boroughs.

This habitat holds **low** ecological value.

3.2.3 Species-Poor Intact Hedgerow

A species-poor intact hedgerow is present along the northern boundary of the site (see TN3 for full species list, Appendix D), including silver-leaf Cotoneaster *C. pannosus* (which is not an invasive species). As this habitat is dominated by non-native exotic species, it is not considered to fulfil the criteria to be a HPI under the NERC Act, 2006. This habitat holds **low** ecological value.

3.2.4 Amenity Grassland

Amenity grassland is present in the north-eastern and north-western section of site (see TN4 for full species list, Appendix D). This habitat holds **low** ecological value.

3.2.5 'Other' habitat

A multiuse games area with astro-turf is present in the northern section of the site (TN5). This habitat is of **negligible** ecological value.

3.2.6 Hard standing

Hard standing is located in the north-eastern corner of the site and within the garages in the form of pedestrian access pavements and road surfaces (TN6). This habitat is of **negligible** ecological value.

3.2.7 Buildings

The site contains three buildings (TN7). These include single storey frequently used garages (B1, B2 & B3). Further detail relating to the bat roost assessment of these structures is provided in Table 4 in Section 3.3.3. Further detail relating to the suitability of the buildings to Black redstart can be found in Section 3.3.8.

3.3 Protected & Notable Species

3.3.1 Great Crested Newts

The desk study returned one record of GCN located 1km south-east of the site in April 2008. There are no granted EPSL for GCN within 2km of the site.

There are two waterbodies within 500m of the site. One is the River Thames 0.1km west of the site (which is unsuitable to support GCN due to it being a very large river). The other is a channelized canal 0.2km south-west of the site, which is also highly likely to be unsuitable for GCN. The habitats on site (comprising man made habitats / well managed amenity grassland) provide very little foraging opportunities for GCN. Furthermore, the site is isolated by urban infrastructure on all sides which act as effective barriers to GCN. As such, the site is assessed as having **negligible** potential to support GCN (and other amphibians) and are not considered further in this assessment.

3.3.2 Reptiles

One record for each of slow worm and common lizard were returned from the data search, with both located 0.3km south-west of the site in July 2011.

The amenity grassland is well managed, disturbed regularly and is isolated by hard standing pavements / roads. It provides little foraging opportunities for reptiles and is isolated from the wider environment, therefore the site is assessed as having **negligible** potential to support reptiles and are not considered further in this assessment.

3.3.3 Bats

The nearest granted EPSL application for bats was in January 2017 and located approximately 1.2km north-west of the site. The EPSL was for the destruction of a common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus* day roost.

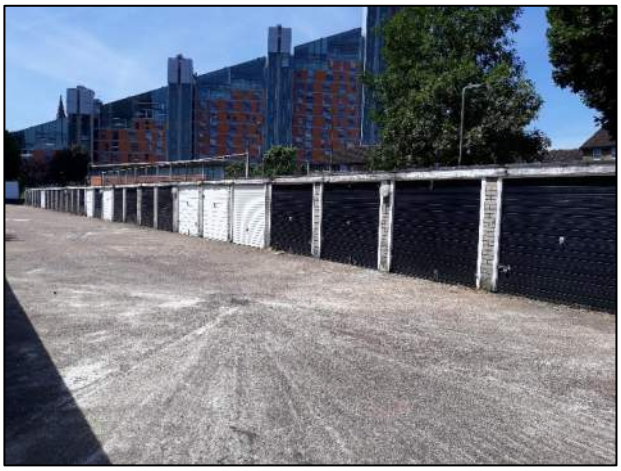
There were 49 bat records returned from the data search, incorporating *Nyctalus* bat species (including noctule *Nyctalus noctule*), as well as common and soprano pipistrelle bats. The nearest bat record was 0.1km south of the site in 2004 of an unidentified bat species. The most recent was in August 2017 of a *Pipistrellus* bat species.

Building Bat Roost Assessment

All three buildings (B1, B2 & B3) within the site have been assessed as having **negligible** suitability to support roosting bats. Further detail is provided in Table 4 below.

Table 4: Buildings assessed for bat roost suitability

Building	Description	Photograph
B1	TQ 26945 76925 Row of flat roof, brick built garages in the south of the site. Metal doors, no access inside at the time of survey. Wooden soffit on northern elevation only, in good condition. Bitumen roof. A small number of gaps are present under the soffits along the northern elevation of B1. However after inspection these are unsuitable to support roosting bats. This structure is assessed as having **negligible** suitability for roosting bats.	Northern elevation:  Southern elevation: 
B2	TQ 26945 76942 Row of flat roof, brick built garages in the centre of the site. Wooden soffit on northern and southern elevations. Bitumen roof. Frequent gaps where soffit has lifted on northern edge of B2 and tight gaps along western edge, but these are covered in cobwebs. This structure is assessed as having **negligible** suitability for roosting bats.	Southern elevation: 

Building	Description	Photograph
		Northern elevation: 
B3	TQ 26945 76962 Row of flat roof, brick built garages in the north-centre of the site. Wooden soffit on the southern elevation only, in good condition. Bitumen roof. A small number of gaps are present under the soffits along the southern elevation of B3. However after inspection these are unsuitable to support roosting bats. This structure is assessed as having **negligible** suitability for roosting bats.	Southern elevation:  Northern elevation: 

Tree Bat Roost Assessment

None of the trees have potential to support roosting bats. Therefore the site was assessed as having **negligible** bat roost suitability.

Commuting and Foraging Bats

The site contains very small parcels of amenity grassland and few scattered trees which provide some opportunities for foraging as well as commuting to the wider area. However, given that the site is small in size, the majority of the habitats within the site are hardstanding, is located in a highly urban environment and not connected to any green space, the site has **negligible** suitability for commuting and foraging bats.

3.3.4 Badger

The desk study returned no badger records within 1km of the site.

The northern and eastern site boundaries are adjacent to a well-used road, limiting potential movement of badgers or other mammals to or from the site in this direction. A 50m buffer zone was assessed to the west of the site, which predominantly consists of hardstanding and buildings. To the south is a parcel of amenity grassland.

The amenity grassland is well managed, disturbed regularly and is isolated by hard standing pavements / roads. As such, badger are highly unlikely to use the site and the site has been assessed as having a **negligible** potential for badgers and they are not considered further in this report.

3.3.5 Hazel Dormice

The desk study returned no hazel dormouse *Muscardinus avellanarius* records within 1km of the site.

The site provides no suitable habitat to support dormouse, predominantly consisting of hard standing and is highly isolated by urban development. Therefore the site is assessed as having **negligible** potential to support dormouse.

3.3.6 Otter & Water Vole

The desk study returned no otter *Lutra lutra* or water vole *Arvicola amphibia* records within 1km of the site.

There are no waterbodies or watercourses on site and no suitable otter or water vole habitat within the site. The site is assessed as having **negligible** potential to support otters or water voles and they are not considered further in this report.

3.3.7 European Hedgehog

The desk study returned one European hedgehog *Erinaceus europaeus* record, the most recent of which was from 1999 located 1.0km south-east of the site.

The habitats within the site do not provide foraging and sheltering habitat for hedgehog, therefore the site has **negligible** potential to support hedgehog. Casual use of the site by hedgehogs cannot be ruled out, especially dispersing juvenile animals. However, the hedgehog population in central

London has severely declined in the last few decades so it is unlikely that hedgehogs are present in the local area.

3.3.8 Birds

Records from 36 species of bird were found within 1km of the site. These include house sparrow *Passer domesticus* (a SPI and red listed bird under the BoCC), black redstart *Phoenicurus ochruros* (W&CA Schedule 1 Part 1 and red listed BoCC) and song thrush *Turdus philomelos* (SPI and red listed BoCC).

The site is not considered suitable to support either breeding or foraging black redstarts due to the lack of suitable nesting opportunities and the lack of suitable open mosaic habitat to provide a foraging resource.

Habitats of most value to birds on site are the scattered trees and species-poor intact hedgerow, and the buildings which could be used by breeding birds. Overall, the site has **moderate** potential to support nesting and foraging common bird species such as robin *Erithacus rubecula* and wood pigeon *Columba palumbus.*

3.3.9 Invertebrates

Records from nine invertebrate species were returned from the data search. The most numerous records were from stag beetle *Lucanus cervus* (SPI species) with the nearest 0.3km south-west of site in 2011. Two records of garden tiger moth *Arctia caja* (SPI species) were also returned, with the nearest 0.6km north-east from 2002.

It is considered that there is not sufficient dead wood resource within the site to support stag beetles. The larvae of garden tiger moth are polyphagous, eating a wide variety of herbaceous plants; including many that are present both within the site and in the wider landscape.

The habitats on site are highly managed, isolated and dominated by non-native exotic species, therefore the site is assessed as having **low** potential to support invertebrates**.**

3.3.10 Notable Flora and Invasive Species

The desk study found six species records for Schedule 8 WCA plants within 2km of the site boundary, including bluebell *Hyacinthoides non-scripta*, stinking goosefoot *Chenopodium vulvaria* and jersey cudweed *Gnaphalium luteoalbum*.

The desk study found 23 LISI flowering plant species records within 2km of the site boundary including Japanese knotweed *Fallopia japonica* (also a Schedule 9 species of the W&CA), wall cotoneaster *Cotoneaster horizontalis* and butterfly-bush *Buddleja davidii*.

Invasive false acacia present on site, a category 3 LISI species, not listed on Schedule 9 of the W&CA but considered invasive by all London Boroughs.

3.4 Importance of Ecological Features

In line with the CIEEM PEA Guidelines, and based on the above baseline information, each ecological feature recorded within the study area is considered to have the following importance, using the Methodology as defined in Section 4 of the CIEEM EcIA Guidelines (2018):

Table 4 Importance of Ecological Features

Feature	Importance	Rationale
Nine SINC's	County	These sites are designated for various features of county level importance.
Introduced shrub	Negligible	A mix of UK native and non-native plants, highly managed and isolated by hard standing. Likely to be used by birds and invertebrates.
Parkland scattered trees	Local	A number of common trees on site likely to provide local ecological value.
Species-poor hedgerow	Negligible	The hedgerow has low ecological value.
Amenity grassland	Negligible	The amenity grassland has low ecological value.
Bare ground/hard standing/ 'other' habitat	Negligible	They are of negligible ecological value in themselves.
Buildings	Negligible	They are of negligible ecological value in themselves.
Great crested newt and other amphibians	Negligible	The site has negligible potential for GCN and other amphibians.
Reptiles	Negligible	The site has negligible potential for reptiles.
Roosting bats	Negligible	The site has negligible potential for roosting bats.
Commuting and foraging bats	Negligible	The site has negligible potential for commuting and foraging bats.
Badger	Negligible	The site has no suitable foraging or sett creation habitat.
Dormouse	Negligible	Habitats on site have negligible potential to support dormouse.
Otter and Water Vole	Negligible	Site has negligible potential for otters or water voles as there is no suitable habitat present.
Other Mammals	Local	The site has negligible potential to support other mammals.
Birds	Negligible	Likely to be small numbers of common breeding species. Black redstarts not considered likely to be present due to lack of suitable habitat.
Invertebrates	Negligible	Likely to contain common species. Notable assemblage unlikely as flora dominated by exotic species.
Notable Plants	Negligible	None on site.

Feature	Importance	Rationale
Invasive Species	Negligible	False acacia present on site.
Either: International (incl. European) / National / Regional / County / Local / Negligible **Or:** Unknown (i.e. further surveys/information needed)		

The potential for the proposals to have adverse or beneficial impacts on these features, along with the need for any mitigation or enhancement measures are discussed in detail below.

4.0 Relevant Planning Policy & Legislation

4.1 Revised National Planning Policy Framework

A revised NPPF was issued on 19th February 2019 (Ministry of Housing Communities and Local Government, 2019) and currently supplements government Circular *06/2005, Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System* (Office of the Deputy Prime Minister, 2005).

Circular 06/2005 states that the presence of protected species is a material consideration in the planning process. Paragraph 170 of the NPPF also states that:

`*Planning policies and decisions should contribute to and enhance the natural environment by:*

a) *protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan)*
b) *recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland*
c) *maintaining the character of the undeveloped coast, while improving public access to it where appropriate*
d) *minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures*
e) *preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and*
f) *remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.*

The conservation and enhancement of wildlife is also specifically reference re: development within the National Parks or the Broads.

Paragraph 175 then goes on to confirm that:

When determining planning applications, local planning authorities should apply the following principles:

a) *if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
b) *development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*

c) *development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and*
d) *development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.*

Regarding EcIA's and HRA's – any sites identified, or required, as compensatory measures for adverse effects on any Natura 2000/habitats site should also be given the same level as protection as the pSPA's and cSAC's themselves. In addition, when an application is being determined, Paragraph 177 clarifies that:

"*The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.*"

Paragraph 180 is also relevant as;

Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should:…

c) *limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.*

4.2 Biodiversity 2020: A strategy for England's Wildlife & Ecosystem Services

Biodiversity 2020 (DEFRA, 2011) replaces the previous UK Biodiversity Action Plan and sets national targets to be achieved. The intent of Biodiversity 2020, however, is much broader than the protection and enhancement of less common species, and is meant to embrace the wider countryside as a whole.

The priority species and habitats considered under Biodiversity 2020 are the SPI & HPI detailed under NERC Act (see Appendix B for further details).

4.3 Local Biodiversity Action Plan

Local Biodiversity Action Plans (LBAPs) identify habitat and species conservation priorities at a local level (typically County by County) and are usually drawn up by a consortium of local Government organisations and conservation charities. Although they are no-longer managed at a national level many are still reviewed and updated at a local level.

The London BAP is the relevant document for this site and it contains the following Habitat Action Plans (but doesn't not specifically list any Species Action Plans):

The London BAP (2016) identified a total of 214 priority species that are under particular threat in London. Planning decisions must take these species into account. Eight of these species (or species groups) were identified as needing targeted action to secure their future in London, and these have their own SAPs.

Table 6: LBAP SAPs

Species Action Plans	
Bats	Sand martin *Riparia riparia*
Black poplar *Populus nigra*	Stag beetle
House sparrow	Water vole
Mistletoe *Viscum album*	Reptiles
Other Important Species	
Black redstart	Otter
Common dormouse	Peregrine falcon *Falco peregrinus*
Grey heron *Ardea cinerea*	

The London BAP identifies priority habitats that are of particular importance for biodiversity in London. Many of these habitats are covered by HAPs. The London BAP has 11 HAPS. Nine of these are for named habitat types, while another two are for land uses.

Table 7: LBAP HAPs

Habitats Action Plans	
Acid grassland	Rivers & streams
Chalk grassland	Standing water
Heathland	Tidal Thames
Parks & urban green spaces	Wasteland
Private gardens	Woodland
Reedbeds	
Other Important Habitats	
Built structures	Fen, marsh and swamp
Meadows and pastures	Open landscapes with ancient/old trees

It should be noted that the existence of a HAP does not always infer an elevated level importance for those features. These plans may be designed to encourage an increase in these habitats, rather than to protect a county-scarce feature (for example).

Wandsworth council does not have a LBAP but local biodiversity action plans are managed by Enable, a not-for-profit organisation who implement those from the London BAP. Enable manage a diverse portfolio of public services on behalf of Wandsworth Council. A Biodiversity Partnership was set-up in

2001 with the original intention of producing action plans for the borough's wildlife. However since the London Biodiversity Partnership were already producing action plans for many of the species and habitats, Enable decided to prioritise contributing to meeting their targets. Actions include those for protecting grey herons *Ardea cinerea*, peregrine falcons *Falco peregrinus*, house sparrows and conserving acid grassland.

4.4 Local Plan

Those policies of relevance to ecology within Wandsworth Local Plan Core Strategy (March 2016) are listed below.

Policy PL 4 - Open space and the natural environment

a) *The Council will protect and improve public and private open space and Green Infrastructure in the borough, including Metropolitan Open Land, such as the major commons, parks, allotments, trees and playing fields as well as the smaller spaces, including play spaces, as identified in the Open Space Study and Play Strategy.*
b) *Playing fields will be protected and opportunities for participation in sport, recreation and children's play will be promoted. Where there is no future demand for playing fields or other outdoor sports use, other open space uses will be sought.*
c) *The Council will require the provision of open space and/or secure public access to private facilities, in appropriate developments, and as a priority in areas identified as deficient in open space, play space or sport and recreation facilities and/or to meet priorities identified in the Council's Play Strategy, Active Wandsworth Strategy, Parks Management Strategy and All London Green Grid (ALGG) Area Frameworks. The requirements for open space provision are set out in the Planning Obligations SPD.*
d) *The borough's green chains and the open spaces along them will be protected and enhanced taking into account opportunities identified in the ALGG Area Frameworks. The biodiversity value of the borough will be protected and enhanced including that of the River Thames, River Wandle and Beverley Brook and species and habitats identified in the London Biodiversity Action Plan and through Local Nature Partnerships.*
e) *New development should avoid causing ecological damage and propose full mitigation and compensation measures for ecological impacts which do occur. Where appropriate new development should include new or enhanced habitat or design and landscaping which promotes biodiversity, and provision for management, particularly in areas identified as deficient in nature conservation.*
f) *The Council will work with partners to develop and implement proposals for the Wandle Valley Regional Park.*

Those policies of relevance to ecology within the London Local Plan (March 2016) are listed below.

Policy 7.19, part C of the London Plan (2016), Biodiversity and access to nature, states;

"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*
    a. *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*
    a. *significant adverse impact on European or nationally designated sites or on the population or*
    b. *conservation status of a protected species or a priority species or habitat identified in a UK,*
    c. *London or appropriate regional BAP or borough BAP…"*

4.5 Legislation

Full details of the UK legislation and offences which are relevant to the ecological receptors identified are included in Appendix B. However, based on the findings of our assessment, it is considered that the proposals will need to consider the following legal provisions:

- Disturbance of nesting wild birds

5.0 Discussion

5.1 Designated Sites

Sites of Importance for Nature Conservation

The River Thames and Tidal Tributaries SINC is located 0.3km north-east of the site. The proposals are unlikely to cause a direct or indirect effects on the SINC in the area due to the localised nature of the development.

As a matter of best practice, pollution prevention measures should be adopted such as:

- Measures to minimise dust arising, when necessary, including the use of dust control machinery and wet machinery;
- Measures to prevent pollution / contamination events through surface run-off;
- Sensitive lighting schemes should be used to minimise impact on bats and nocturnal invertebrates, principally moths (see Section 5.3);
- Measures to minimise other pollution events such as noise, vibration and wind-blown litter.

Local Nature Reserve

The nearest LNR is Battersea Park Nature Areas located 1.5km east of the site beyond Battersea Park and comprises a planted woodland, scrub, meadow and a pond. The proposals are unlikely to cause a direct or indirect effects on the LNR. Operation of the proposed development is unlikely to result in significantly increased visitor pressure to this LNR as the site is already located in a densely populated urban environment and the LNR is managed appropriately for visitors.

5.2 Habitats

The bare ground and hardstanding are of no ecological value and their removal is insignificant in relation to ecology.

Introduced shrub and parkland scattered trees

A small parcel of introduced shrub and scattered trees will be removed which have features suitable for nesting birds and invertebrates. The removal of this habitat will not be significant and can be compensated by planting UK native species within new landscaping for the site. It is recommended that the trees are retained and should be protected during construction using root protection fencing around the root zones in accordance with British Standards BS 5837 2012: Trees in Relation to Construction.

The scattered trees have negligible suitability to support roosting bats but may support commuting or foraging bats, therefore it is recommended that the trees are retained and protected as above. If the trees cannot be retained, replacement planting on a like-for-like basis should be adhered to.

It is recommended that the false acacia is removed (see Section 5.3 – Invasive Species).

Species-Poor Defunct Hedgerow

The hedgerow in the north of the site is dominated by exotic species of low ecological value. Although this small hedgerow might be suitable for nesting birds and invertebrates, no impacts are envisaged

from its removal and can be compensated by planting UK native species within new landscaping for the site.

Amenity Grassland

Although the small parcel of amenity grassland might provide suitable foraging resource for hedgehogs, some birds and invertebrates, no impacts are envisaged from its removal (should removal be required), which can be compensated by planting UK native species within new landscaping for the site.

Buildings

Buildings 1, 2 & 3 are of negligible ecological value for roosting bats and limited value for nesting birds.

5.3 Protected & Notable Species

Only those species which could be adversely impacted by the proposals are discussed in this section

Bats

All species of British bats and their roosts are fully protected under the W&CA and Habitat Regulations.

Foraging and Commuting Bats

Vegetation in the form of small areas of introduced shrub and scattered trees provide a limited foraging resource and the removal of these habitats is not considered to have a significant impact on bats. However, as bats may pass over the site and occasionally forage, recommendations for external lighting are provided below.

External Lighting Recommendations

To minimise the risk of disturbing foraging and commuting bats using the site, specific working practices / mitigation methods are recommended during the construction and operational phases of the development as outlined below:

During Construction

- Works should take place during daylight hours; and
- If security lighting is necessary, lights triggered by motion sensors should be used and their coverage should be kept to a minimum.

Operational Phase

Any new lighting should be carefully designed to minimise disturbance to foraging and commuting bats in the nearby areas. A sensitive lighting strategy is recommended including steps such as:

- Consideration of the available lighting technology to minimise impacts on bats, i.e. use of LED lighting. These have been shown to have the least impact on bats (as well as invertebrates) as they emit no UV light (which attracts invertebrates). LED lighting also emits little UV light, and these lamps can be programmed to switch off, or dim at certain times;

- Directional lighting where light spillage is avoided. Hoods/cowls can be used to direct light below the horizontal plane (ideally at an angle less than 70 degree);
- Lights designed to be as low to the ground as possible (specifically not above 8m); and
- Lights switched off at night (particularly during the months of April to October, inclusive when bats are active), or at least, motion sensored.

Birds

All nesting birds are protected whilst breeding by the W&CA.

Several trees, buildings and the hedgerow on site could be used by nesting birds. In order to avoid committing an offence by disturbing a nesting bird and clearance of trees/vegetation should be undertaken outside of the nesting bird season, i.e. clearance should take place between October to February inclusive. If clearance during this timing is not possible, it is recommended that a check for nesting birds is undertaken within 48 hours prior to clearance of vegetation by a suitably qualified ecological clerk of works (ECoW). If an active bird nest is found, a buffer (typically around 5m, but more for some sensitive species) should be set up within which no work takes place until the young have fledged and the nest is no longer in use. Work which creates more disturbances (e.g. piling) will require a larger buffer.

Invasive Species

The false acacia tree (TN8) is a category 3 LISI species, not listed on Schedule 9 of the W&CA but considered invasive by all London Boroughs. In order to prevent further spread of this species (which produces suckers readily from the root stock); it is recommended that it is removed as soon as practicable, including as much of the root as possible. To prevent re-growth after felling, it is further recommended that the site is monitored in years one and three after felling to check for sucker re-growth. Any fresh growth can be treated with an approved herbicide (PCA, Practical Management of Invasive Non-Native Weeds in Britain and Ireland 2018). A specialist contractor should be contacted to produce a Method Statement for removal to include timings.

5.4 Ecological Enhancements

With reference to the NPPF and Wandsworth Local Plan Core Strategy (2016), the following ecological enhancements are recommended to enhance the site for ecology:

- Gardens and/or green space should be included in the proposed development;
- Planting of native species of herbaceous vegetation, scrub and trees, including fruiting trees and dense scrub species to provide food and nesting opportunities for birds;
- Incorporate connectivity of green space within the development and that of the wider area (particularly neighbouring gardens) to allow free movement by hedgehogs and other terrestrial species;
- Installation of hedgehog houses; and
- Install bat bricks/boxes and bird boxes for house sparrow onto new buildings and any mature trees which are retained.

Further advice on how to enhance the site for notable wildlife can be provided on request.

6.0 Summary

6.1 Designated Sites

No adverse impacts on wildlife designated sites is likely. As a matter of best practice, pollution prevention measures should be followed during site clearance and construction phases of the project.

6.2 Habitats

Habitats on site include introduced shrub, scattered trees, species-poor hedgerow, amenity grassland, 'other' habitat, hard standing and buildings.

Trees should be retained where possible and protected throughout demolition and construction activities. The exception is the invasive false acacia, which is recommended to be removed from the site.

6.3 Protected & Notable Species

- Breeding birds should be considered during removal of scattered trees, buildings and introduced shrub. Vegetation clearance is recommended outside of the nesting bird season (clearance should be done October to February inclusive). If this is not possible, an ECoW should perform a nesting bird check within 48 hours prior to clearance; and
- Reducing the artificial lighting/lighting to be designed more sensitively for bats.

6.4 Enhancements

Site enhancements, including wildlife beneficial planting and the installation of bat and bird boxes are recommended.

7.0 References

- Bright, P.W., Morris, P.A. and Mitchell-Jones, A., (2006), Dormouse Conservation Handbook, 2nd Edition, English Nature: Peterborough.
- BSI Group, (2013), BS 42020 – a code of practice for biodiversity in planning and development, [online] Available at https://www.bsigroup.com/LocalFiles/en-GB/biodiversity/BS-42020-Smart-Guide.pdf, Accessed July 2019.
- CIEEM, (2017), Guidelines for Preliminary Ecological Appraisal, 2nd Edition, CIEEM: Winchester.
- CIEEM, (2018), Guidelines for Ecological Impact Assessment, CIEEM: Winchester.
- Collins, J. (ed.), (2016), Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd Edition, The Bat Conservation Trust: London.
- DEFRA, (2011), Biodiversity 2020: A strategy for England's wildlife and ecosystem services, [online] Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/69446/pb13583-biodiversity-strategy-2020-111111.pdf, Accessed July 2019.
- Eaton, M., Aebischer, N., Brown, A., Hearn, R. Lock, L. Musgrove, A., Noble, D. Stround, D. and Gregory, R. (2015) Birds of conservation concern 4: the population status of birds in the UK, channel islands and isle of man. British birds, 108:708-746.
- Gent, T. & Gibson, S. (2003). Herpetofauna Workers' Manual. JNCC, Peterborough.
- Harris, S., Cresswell, P. and Jeffries, D., (1989), Surveying badgers. An occasional publication of the mammal society – No. 9., Mammal Society: London.
- JNCC, (2010), Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit, JNCC: Peterborough.
- Langton, T.E.S., Beckett, C.L. and Foster, J.P., (2001), Great Crested Newt Conservation Handbook, Froglife: Halesworth.
- London Invasive Species Initiative (LISI) [online] Available at http://www.londonisi.org.uk/, Accessed July 2019.
- Mayor of London (2016), The London Plan: Chapter Seven: London's Living Spaces and Places, Policy 7.19 Biodiversity and access to nature, [online], Available at https://www.london.gov.uk/sites/default/files/the_london_plan_malp_march_2016_-_chapter_7_-_londons_living_spaces_places.pdf, Accessed July 2019.
- Ministry of Housing Communities and Local Government, (2019), National Planning Policy Framework, [online] Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/779764/NPPF_Feb_2019_web.pdf, Accessed July 2019.
- ODPM, (2005), Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their Impact within the Planning System, [online] Available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/7692/147570.pdf, Accessed July 2019.
- Oldham R.S., Keeble J., Swan M.J.S. and Jeffcote M., (2000), Evaluating the Suitability of Habitat for the Great Crested Newt (Triturus cristatus), Herpetological Journal, 10 (4), 143-155.
- Property Care Association (2018). Practical Management of Invasive Non-Native Weeds in Britain and Ireland. Packard Publishing Limited, Chichester.
- Stace, C., (2019), New Flora of the British Isles, 4th Edition, C&M Floristics Middlewood Green, Suffolk.

- Wandsworth Local Plan- Core Strategy: Adopted March 2016, [online] Available at https://www.wandsworth.gov.uk/media/1425/local_plan_core_strategy_adopted_march_2016.pdf, Accessed July 2019.

Please note that the legislation which is relevant to this report is not included in the list above, but details are included in Appendix B below.

FIGURES

Figure 1 – Site Location Plan
Figure 2 – Phase 1 Habitat Plan

Rev	Date	Notes
A	08/08/19	Initial map production

Legend

- Site boundary
- 500m buffer
- Site of Importance for Nature Conservation (SINC)
- Waterbody

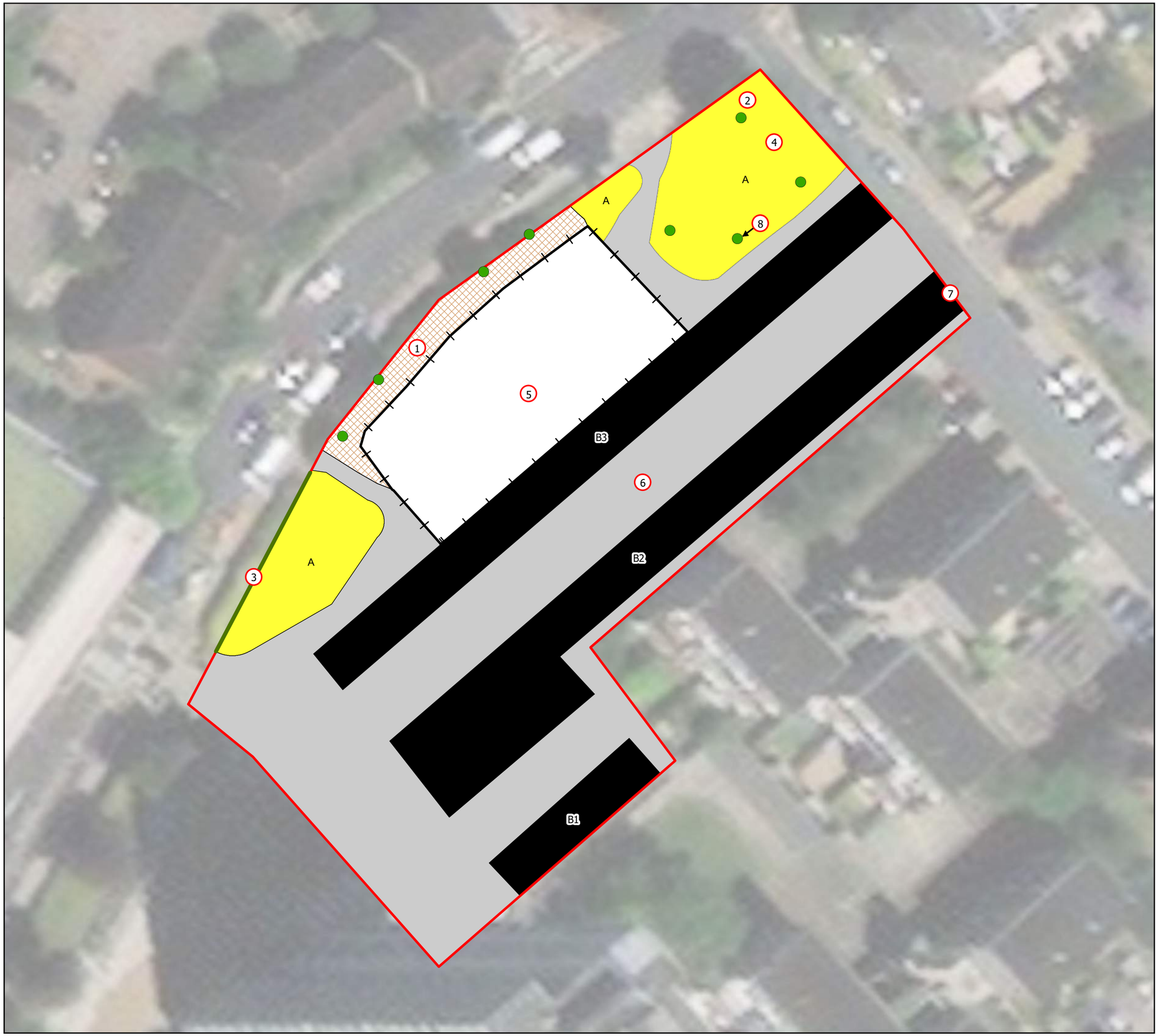
0 100 200 Metres

Site Location Plan

Wandsworth Estate - Battersea Church Road / Crewkerne Court Garages
Wandsworth Borough Council

Scale at A3:	Project No:	Drawing No:	Revision:
1:4,250	A100140-36	Figure 1	A

Drawn by:	Drawn date:	Approved by:
Maddie Errington	08/08/2019	Georgia Alfreds



Rev	Date	Notes
A	08/08/19	Initial map production

Legend

- Site boundary
- A — Amenity grassland
- Introduced shrub
- Buildings
- Hardstanding
- Other habitat
- Intact hedge - species-poor
- Fence
- Scattered tree
- Target note

0 10 20 Metres

N

Phase 1 Habitat Plan

Wandsworth Estate - Battersea Church Road / Crewkerne Court Garages
Wandsworth Borough Council

Scale at A3:	Project No:	Drawing No:	Revision:
1:400	A100140-36	Figure 2	A

Drawn by:	Drawn date:	Approved by:
Maddie Errington	08/08/2019	Georgia Alfreds

G:\GIS Southampton\A100140-36_BatterseaChurchRoad\CrewkerneCourtGarage\MXD\Figure2_Phase1_080819.mxd

Appendix A – Report Conditions

This Report has been prepared using reasonable skill and care for the sole benefit of Wandsworth Borough Council ("the Client") for the proposed uses stated in the report by [WYG Environment Planning Transport Limited] ("WYG"). WYG exclude all liability for any other uses and to any other party. The report must not be relied on or reproduced in whole or in part by any other party without the copyright holder's permission.

No liability is accepted or warranty given for; unconfirmed data, third party documents and information supplied to WYG or for the performance, reliability, standing etc of any products, services, organisations or companies referred to in this report. WYG does not purport to provide specialist legal, tax or accounting advice.

The report refers, within the limitations stated, to the environment of the site in the context of the surrounding area at the time of the inspections'. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the site and surrounding area at differing times. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions. The "shelf life" of the Report will be determined by a number of factors including; its original purpose, the Client's instructions, passage of time, advances in technology and techniques, changes in legislation etc. and therefore may require future re-assessment.

The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. WYG accept no liability for issues with performance arising from such factors.

Appendix B – Key Legislation

Bern Convention

The *Convention on the Conservation of European Wildlife and Natural Habitats* (the *Bern Convention*) was adopted in Bern, Switzerland in 1979, and was ratified in 1982. Its aims are to protect wild plants and animals and their habitats listed in Appendices 1 and 2 of the Convention, and regulate the exploitation of species listed in Appendix 3. The regulation imposes legal obligations on participating countries to protect over 500 plant species and more than 1000 animals.

To meet its obligations imposed by the Convention, the European Community adopted the *EC Birds Directive* (1979) and the *EC Habitats Directive* (1992 – see below). Since the Lisbon Treaty, in force since 1st December 2009, European legislation has been adopted by the European Union.

Bonn Convention

The Convention on the Conservation of Migratory Species of Wild Animals or 'Bonn Convention' was adopted in Bonn, Germany in 1979 and came into force in 1985. Participating states agree to work together to preserve migratory species and their habitats by providing strict protection to species listed in Appendix I of the Convention. It also establishes agreements for the conservation and management of migratory species listed in Appendix II.

In the UK, the requirements of the convention are implemented via the Wildlife & Countryside Act 1981 (as amended), Wildlife (Northern Ireland) Order 1985 (as amended), Nature Conservation and Amenity Lands (Northern Ireland) Order 1985 and the Countryside and Rights of Way Act 2000 (CRoW).

Habitats Directive

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Fora, or the 'Habitats Directive', is a European Union directive adopted in 1992 in response to the Bern Convention. Its aims are to protect approximately 220 habitats and 1,000 species listed in its several Annexes.

In the UK, the Habitats Directive is transposed into national law via the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales, and via the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland.

Birds Directive

The EC Directive on the Conservation of Wild Birds (791409/EEC) or 'Birds Directive' was introduced to achieve favourable conservation status of all wild bird species across their distribution range. In this context, the most important provision is the identification and classification of Special Protection Areas (SPAs) for rare or vulnerable species listed in Annex 1 of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance.

Conservation of Habitats and Species Regulations 2017 (as amended)

Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species (listed in Annexes I or II of the Habitats Directive respectively) to the European Commission. These sites, if ratified by the European Commission, are then designated as Special Protection Areas (SPAs) within six years. Public bodies must also help preserve, maintain and re-establish habitats for wild birds.

The 2018 amendments mainly related to the impact of the *People Over Wind* decision and some implications arising for neighbourhood plan development and a range of other planning tools including Local Development Orders and Permission in Principle – see here for full details:

https://www.legislation.gov.uk/uksi/2018/1307/note/made

The Regulations make it an offence to deliberately capture, kill, disturb or trade in the animals listed in Schedule 2, or pick, uproot, destroy, or trade in the plants listed in Schedule 5 - see below:

Schedule 2 – European Protected Species of Animals	**Schedule 5 – European Protected Species of Plants**
Horseshoe bats *Rhinolophidae* - all species	Shore dock *Rumex rupestris*
Common bats *Vespertilionidae* - all species	Killarney fern *Trichomanes speciosum*
Large Blue Butterfly *Maculinea arion*	Early gentian *Gentianella anglica*
Wild cat *Felis sylvestris*	Lady's-slipper *Cypripedium calceolus*
Dolphins, porpoises and whales *Cetacea* – all sp.	Creeping marsh-wort *Apium repens*
Dormouse *Muscardinus avellanarius*	Slender naiad *Najas flexilis*
Pool frog *Rana lessonae*	Fen orchid *Liparis loeselii*
Sand lizard *Lacerta agilis*	Floating-leaved water plantain *Luronium natans*
Fisher's estuarine moth *Gortyna borelii lunata*	Yellow marsh saxifrage *Saxifraga hirculus*
Great crested newt *Triturus cristatus*	
Otter *Lutra lutra*	
Lesser whirlpool ram's-horn snail *Anisus vorticulus*	
Smooth snake *Coronella austriaca*	
Sturgeon *Acipenser sturio*	
Natterjack toad *Epidalea calamita*	
Marine turtles *Caretta caretta, Chelonia mydas, Lepidochelys kempii, Eretmochelys imbricata, Dermochelys coriacea*	

Wildlife & Countryside Act 1981 (as amended)

This is the principal mechanism for the legislative protection of wildlife in the UK. This legislation is the chief means by which the 'Bern Convention' and the Birds Directive are implemented in the UK. Since it was first introduced, the Act has been amended several times.

The Act makes it an offence to (with exception to species listed in Schedule 2) intentionally:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use; or
- take or destroy an egg of any wild bird.

Or to intentionally do the following to a wild bird listed in Schedule 1:

- disturbs any wild bird while it is building a nest or is in, on or near a nest containing eggs or young; or
- disturbs dependent young of such a bird.

In addition, the Act makes it an offence (subject to exceptions) to:

- intentionally or recklessly kill, injure or take any wild animal listed on Schedule 5;
- interfere with places used for shelter or protection, or intentionally disturbing animals occupying such places; and
- The Act also prohibits certain methods of killing, injuring, or taking wild animals.

Finally, the Act also makes it an offence (subject to exceptions) to:

- intentionally pick, uproot or destroy any wild plant listed in Schedule 8, or any seed or spore attached to any such wild plant;
- unless an authorised person, intentionally uproot any wild plant not included in Schedule 8; or
- sell, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

Following all amendments to the Act, Schedule 5 'Animals which are Protected' contains a total of 154 species of animal, including several mammals, reptiles, amphibians, fish and invertebrates. Schedule 8 'Plants which are Protected' of the Act, contains 185 species, including higher plants, bryophytes and fungi and lichens. A comprehensive and up-to-date list of these species can be obtained from the JNCC website.

Part 14 of the Act makes unlawful to plant or otherwise cause to grow in the wild any plant which is listed in Part II of Schedule 9.

It is recommended that plant material of these species is disposed of as bio-hazardous waste, and these plants should not be used in planting schemes.

Schedule 1 - Birds which are protected by special penalties			
Avocet	*Recurvirostra avosetta*	Osprey	*Pandion haliaetus*
Bee-eater	*Merops apiaster*	Owl, Barn	*Tyto alba*
Bittern	*Botaurus stellaris*	Owl, Snowy	*Nyctea scandiaca*
Bittern, Little	*Ixobrychus minutus*	Peregrine	*Falco peregrinus*
Bluethroat	*Luscinia svecica*	Petrel, Leach's	*Oceanodroma leucorhoa*
Brambling	*Fringilla montifringilla*	Phalarope, Red-necked	*Phalaropus lobatus*
Bunting, Cirl	*Emberiza cirlus*	Plover, Kentish	*Charadrius alexandrinus*
Bunting, Lapland	*Calcarius lapponicus*	Plover, Little Ringed	*Charadrius dubius*
Bunting, Snow	*Plectrophenax nivalis*	Quail, Common	*Coturnix coturnix*
Buzzard, Honey	*Pernis apivorus*	Redstart, Black	*Phoenicurus ochruros*
Capercaillie	*Tetrao urogallus*	Redwing	*Turdus iliacus*
Chough	*Pyrrhocorax pyrrhocorax*	Rosefinch, Scarlet	*Carpodacus erythrinus*
Corncrake	*Crex crex*	Ruff	*Philomachus pugnax*
Crake, Spotted	*Porzana porzana*	Sandpiper, Green	*Tringa ochropus*
Crossbills (all species)	*Loxia*	Sandpiper, Purple	*Calidris maritima*
Curlew, Stone	*Burhinus oedicnemus*	Sandpiper, Wood	*Tringa glareola*
Divers (all species)	*Gavia*	Scaup	*Aythya marila*
Dotterel	*Charadrius morinellus*	Scoter, Common	*Melanitta nigra*
Duck, Long-tailed	*Clangula hyemalis*	Scoter, Velvet	*Melanitta fusca*
Eagle, Golden	*Aquila chrysaetos*	Serin	*Serinus serinus*
Eagle, White-tailed	*Haliaetus albicilla*	Shorelark	*Eremophila alpestris*
Falcon, Gyr	*Falco rusticolus*	Shrike, Red-backed	*Lanius collurio*
Fieldfare	*Turdus pilaris*	Spoonbill	*Platalea leucorodia*
Firecrest	*Regulus ignicapillus*	Stilt, Black-winged	*Himantopus himantopus*
Garganey	*Anas querquedula*	Stint, Temminck's	*Calidris temminckii*

Godwit, Black-tailed	*Limosa limosa*	Swan, Bewick's	*Cygnus bewickii*
Goshawk	*Accipiter gentilis*	Swan, Whooper	*Cygnus cygnus*
Grebe, Black-necked	*Podiceps nigricollis*	Tern, Black	*Chlidonias niger*
Grebe, Slavonian	*Podiceps auritus*	Tern, Little	*Sterna albifrons*
Greenshank	*Tringa nebularia*	Tern, Roseate	*Sterna dougallii*
Gull, Little	*Larus minutus*	Tit, Bearded	*Panurus biarmicus*
Gull, Mediterranean	*Larus melanocephalus*	Tit, Crested	*Parus cristatus*
Harriers (all species)	*Circus*	Tree-creeper, Short-toed	*Certhia brachydactyla*
Heron, Purple	*Ardea purpurea*	Warbler, Cetti's	*Cettia cetti*
Hobby	*Falco subbuteo*	Warbler, Dartford	*Sylvia undata*
Hoopoe	*Upupa epops*	Warbler, Marsh	*Acrocephalus palustris*
Kingfisher	*Alcedo atthis*	Warbler, Savi's	*Locustella luscinioides*
Kite, Red	*Milvus milvus*	Whimbrel	*Numenius phaeopus*
Merlin	*Falco columbarius*	Woodlark	*Lullula arborea*
Oriole, Golden	*Oriolus oriolus*	Wryneck	*Jynx torquilla*
Animal (Vertebrate) Species Listed in Schedule 5 (full legal protection at all times)			
Horseshoe Bats (all species)	*Rhinolophidae*	Newt – Great Crested	*Triturus cristatus*
Typical Bats (all species)	*Vespertilionidae*	Snake – Smooth	*Coronella austriaca*
Dolphin – Bottle-nosed	*Tursiops truncatus (tursio)*	Toad, Natterjack	*Epidalea calamita*
Dolphin – Common	*Delphinus delphis*	Turtles – All Species	*Cheloniidae & Dermochelyidae*
Dormouse – Hazel	*Muscardinus avellanarius*	Basking Shark	*Cetorhinus maximus*
Pine Marten	*Martes martes*	Burbot	*Lota lota*
Porpoise – Harbour	*Phocaena phocaena*	Goby – Giant	*Gobius cobitis*
Otter – Eurasian	*Lutra lutra*	Goby – Couch's	*Gobius couchii*
Squirrel – Red	*Sciurus vulgaris*	Seahorse – Short-snouted[1]	*Hippocampus hippocampus*
Walrus	*Odobenus rosmarus*	Seahorse – Spiny	*Hippocampus guttulatus*
Water Vole	*Arvicola amphibia*	Sturgeon	*Acipenser sturio*
Whales – All Species	*Cetacea*	Vendace	*Coregonus albula*
Wildcat	*Felis sylvestris*	Whitefish	*Coregonus lavaretus*
Lizard – Sand	*Lacerta agilis*		
Animal (Vertebrate) Species Protected under Section 9 (1) part: Killing and Injuring & Section 9 (5) Sale			
Adder	*Vipera berus*	Slow-worm	*Anguis fragilis*
Lizard – Viviparous	*Zootoca vivipara*	Snake – Grass	*Natrix helvetica (natrix)*
Animals (Vertebrate) Species Protected under Section 9 (5) Sale only			
Frog – common	*Rana temporaria*	Newt – Smooth	*Lissotriton vulgaris*
Newt – Palmate	*Lissotriton helvetica*	Toad – Common	*Bufo bufo*
Animals (Vertebrate) Species Protected under Section 9 (1) (4)(a): Killing, Injuring &Taking and Damage / Destruction of place of shelter / protection only			
Allis Shad	*Alosa alosa*	Shark – Angel	*Squatina squatina*
Twaite Shad	*Alosa fallax*		
Butterflies & Moths – Full Protection under Schedule 5[2] at all times			
High brown fritillary	*Argynnis adippe*	Fisher's Estuarine Moth	*Gortyna borelii*
Large Blue	*Maculinea arion*	Barberry Carpet	*Pareulype berberata*

[1] Both sea horse species are protected in England only.

[2] Viper's Bugloss Moth *Hadena irregularis* was removed from Schedule 5 in 1996 as it is believed to be extinct.

Heath Fritillary	*Mellicta athalea*	Black-veined Moth	*Siona lineata*
Marsh Fritillary	*Eurodryas aurinia*	Sussex Emerald	*Thalera fimbrialis*
Swallowtail	*Papilio machaon britannicus*	Essex Emerald	*Thetidia smaragdaris*
Large Copper	*Lycaena dispar*	Fiery Clearwing	*Bembecia chrysidiformis*
Reddish-buff Moth	*Acosmetia caliginosa*	New-Forest Burnet	*Zygaena viciae*
Butterflies – Protected under Section 9 (5) Sale Only			
Purple Emperor	*Apatura iris*	Adonis Blue	*Lysandra bellargus*
Northern Brown Argus	*Aricia artaxerxes*	Chalkhill Blue	*Lysandra coridon*
Pearl-bordered Fritillary	*Boloria euphrosyne*	Glanville Fritillary	*Melitaea cinxia*
Chequered Skipper	*Carterocephalus palaemon*	Large Tortoiseshell	*Nymphalis polychloros*
Large Heath	*Coenonympha tullia*	Silver-studded Blue	*Plebejus argus*
Small Blue	*Cupido minimus*	Black Hairstreak	*Strymonidia pruni*
Mountain Ringlet	*Erebia epiphron*	White-letter Hairstreak	*Strymonidia w-album*
Duke of Burgundy	*Hamearis lucina*	Brown Hairstreak	*Thecla betulae*
Silver-spotted Skipper	*Hesperia comma*	Lulworth Skipper	*Thymelicus acteon*
Wood White	*Leptidea sinapis*		
Other Invertebrates – Full Protection under Schedule 5 at all times			
Rainbow Leaf-beetle	*Chrysolina cerealis*	Tadpole Shrimp	*Triops cancriformis*
Spangled Diving-beetle	*Graphopterus zonatus*	Trembling Sea-mat	*Victorella pavida*
Lesser Silver Water-beetle	*Hydrochara caraboides*	De Folin's Lagoon Snail	*Caecum armoricum*
Moccas Beetle	*Hypebaeus flavipes*	Sandbowl Snail	*Catinella arenaria*
Violet Click-beetle	*Limoniscus violaceus*	Freshwater Pearl Mussel	*Margaritifera margaritifera*
Bembridge Beetle	*Parcymus aeneus*	Glutinous Snail	*Myxas glutinosa*
New Forest Cicada	*Cicadetta montana*	Lagoon Snail	*Paludinella littorina*
Wart-Biter	*Decticus verrucivorus*	Lagoon Sea Slug	*Tenellia adspersa*
Mole-Cricket	*Gryllotalpa gryllotalpa*	Northern Hatchet-shell	*Thyasira gouldi*
Field-Cricket	*Gryllus campestris*	Tentacled Lagoon-worm	*Alkmaria romijni*
Norfolk Hawker Dragonfly	*Aeshna isosceles*	Lagoon Sand-worm	*Armandia cirrhosa*
Southern Damselfly	*Coenagrion mercuriale*	Medicinal Leech	*Hirudo medicinalis*
Fen Raft Spider	*Dolomedes fimbriatus*	Marine Hydroid	*Clavopsella navis*
Ladybird Spider	*Eresus niger (cinaberinus)*	Ivell's Sea Anemone	*Edwardsia ivelli*
Fairy Shrimp	*Chirocephalus diaphanus*	Starlet Sea Anemone	*Nematosella vectensis*
Lagoon Sand Shrimp	*Gammarus insensibilis*	Atlantic Stream (White-clawed) Crayfish	*Austropotamobius pallipes*
Other Invertebrates Protected under Section 9 (1) Possession & 9 (2) (5) Sale only			
Stag Beetle	*Lucanus cervus*	Roman Snail[3]	*Helix pomatia*
Fan Mussel	*Atrina fragilis*	Pink Sea-fan	*Eunicella verrucosa*
Other Invertebrates Protected under Section 9 (4) (a) Damage / Destruction of Place of Shelter / Protection only			
Mire Pill Beetle	*Curimopsis nigrita*		
Vascular Plant Species - Full Protection under Schedule 8 at all times (previous Scientific name in brackets)			
Adder's-tongue Least	*Ophioglossum lusitanicum*	Lily – Snowdon	*Gagea serotina (Lloydia serotina)*
Alison- Small	*Alyssum alyssoides*	Marsh-mallow – Rough	*Malva setigera (Althaea hirsuta)*

[3] England only

Broomrape – Bedstraw	*Orobanche caryophyllacea*	Milk-parsley – Cambridge	*Selinum carvifolia*
Broomrape – Oxtongue	*Orobanche picridis*	Mudwort – Welsh	*Limosella aquatica*
Broomrape – Thistle	*Orobanche reticulata*[4]	Naiad – Holly-leaved	*Najas marina*
Cabbage – Lundy	*Coincya wrightii (Rhynchosinapis wrightii)*	Orache – Stalked	*Atriplex pedunculata (Halimione pedunculata)*
Calamint – Wood	*Clinopodium menthifolium (Calamintha sylvatica)*	Orchid – Early Spider	*Ophrys sphegodes*
Catchfly – Alpine	*Silene suecica (Lychnis alpina)*	Orchid – Ghost	*Epipogium aphyllum*
Centaury – Slender	*Centaurium tenuiflorum*	Orchid – Lapland Marsh	*Dactylorhiza lapponica*
Cinquefoil – Rock	*Potentilla rupestris*	Orchid – Late Spider	*Ophrys fuciflora*
Clary – Meadow	*Salvia pratensis*	Orchid – Lizard	*Himantoglossum hircinum*
Club-rush – Triangular	*Schoenoplectus triqueter (Scirpus triqueter)*	Orchid – Military	*Orchis militaris*
Colt's-foot – Purple	*Homogyne alpina*	Orchid – Monkey	*Orchis simia*
Cotoneaster – Wild	*Cotoneaster cambricus (C. integerrimus)*	Pear – Plymouth	*Pyrus cordata*
Cotton-grass – Slender	*Eriophorum gracile*	Pennycress – Perfoliate	*Microthlaspi perfoliatum (Thlaspi perfoliatum)*
Cow-wheat – Field	*Melampyrum arvense*	Pennyroyal	*Mentha pulegium*
Crocus – Sand	*Romulus columnae*	Pigmyweed	*Crassula aquatica*
Cudweed – Broad-leaved	*Filago pyramidata*	Pine - Ground	*Ajuga chamaepitys*
Cudweed – Jersey	*Gnaphalium luteoalbum*	Pink – Cheddar	*Dianthus gratianopolitanus*
Cudweed – Red-tipped	*Filago lutescens*	Pink – Childing	*Petrorhagia nanteuilii*
Cut-grass	*Leersia oryzoides*	Ragwort – Fen	*Jacobaea paludosa (Senecio paludosa)*
Deptford Pink	*Dianthus armeria*	Ramping-fumitory – Martin's	*Fumaria reuteri (F. martinii)*
Diapensia	*Diapensia lapponica*	Rampion – Spiked	*Phyteuma spicata*
Eryngo – Field	*Eryngium campestre*	Restharrow – Small	*Ononis reclinata*
Fern – Dickie's-bladder	*Cystopteris dickieana*	Rock-cress – Alpine	*Arabis alpina*
Fleabane – Alpine	*Erigeron borealis*	Rock-cress – Bristol	*Arabis scabra*
Fleabane – Small	*Pulicaria vulgaris*	Sandwort – Norwegian	*Arenaria norvegica*[5]
Galingale – Brown	*Cyperus fuscus*	Sandwort – Teesdale	*Minuartia stricta*
Gentian – Alpine	*Gentiana nivalis*	Saxifrage – Drooping	*Saxifraga cernua*
Gentian - Dune	*Gentianella amarella subsp. occidentalis (Gentianella uliginosa)*	Saxifrage – Tufted	*Saxifraga cespitosa*
Gentian – Fringed	*Gentianopsis ciliata (Gentianella ciliata)*	Solomon's-seal – Whorled	*Polygonatum verticillatum*
Gentian - Spring	*Gentiana verna*	Sow-thistle – Alpine	*Cicerbita alpina*
Germander – Cut-leaved	*Teucrium botrys*	Spearwort – Adder's-tongue	*Ranunculus ophioglossifolius*
Germander – Water	*Teucrium scordium*	Speedwell – Fingered	*Veronica triphyllos*
Gladiolus – Wild	*Gladiolus illyricus*	Speedwell – Spiked	*Veronica spicata*[6]
Goosefoot – Stinking	*Chenopodium vulvaria*	Spike-rush – Dwarf	*Eleocharis parvula*

[4] The Weeds Act 1959 does not apply to thistles *Cirsium* & *Carduus* species supporting this broomrape.

[5] All subspecies occurring in the UK

[6] Both subspecies: *spicata* & *hybrida*

Grass-poly	*Lythrum hyssopifolia*	South-stack Fleawort	*Tephroseris integrifolia ssp. maritima*
Hare's-ear – Sickle-leaved	*Bupleurum falcatum*	Star-of-Bethlehem – Early	*Gagea bohemica*
Hare's-ear – Small	*Bupleurum baldense*	Starfruit	*Damasonium alisma*
Hawk's-beard – Stinking	*Crepis foetida*	Strapwort	*Corrigiola littoralis*
Hawkweed – Northroe	*Hieracium northroense*	Violet – Fen	*Viola persicifolia*
Hawkweed – Shetland	*Hieracium zetlandicum*	Viper's-grass	*Scorzonera humilis*
Hawkweed – Weak-leaved	*Hieracium attenuatifolium*	Water-plantain – Ribbon-leaved	*Alisma gramineum*
Heath – Blue	*Phyllodoce caerulea*	Wood-sedge – Starved	*Carex depauperata*
Helleborine – Red	*Cephalanthera rubra*	Woodsia – Alpine	*Woodsia alpina*
Horsetail – Branched	*Equisetum ramosissimum*	Woodsia – Oblong	*Woodsia ilvensis*
Hound's-tongue – Green	*Cynoglossum germanicum*	Wormwood – Field	*Artemisia campestris*
Knawel – Perennial	*Scleranthus perennis*[7]	Woundwort - Downy	*Stachys germanica*
Knot-grass – Sea	*Polygonum maritimum*	Woundwort – Limestone	*Stachys alpina*
Leek – Round-headed	*Allium sphaerocephalon*	Yellow-rattle – Greater	*Rhinanthus angustifolius*
Lettuce – Least	*Lactuca saligna*		
Vascular Plant Species – Partial Protection under Section 13 (2) Protection from commercial exploitation and sale			
Bluebell	*Hyacinthoides non-scripta*		
Bryophytes – Full Protection under Schedule 8 at all times			
Anamodon – Long-leaved	*Anomodon langifolius*	Flamingo Moss	*Desmatodon cernuus*
Blackwort	*Southbya nigrella*	Frostwort	*Gymnomitrion apiculatum*
Crystalwort – Lizard	*Riccia bifurca*	Glaucous Beard Moss	*Barbula glauca*
Earwort – Marsh	*Jamesoniella undulifolia*	Green Shield Moss	*Buxbaumia viridis*
Feathermoss – Polar	*Hygrohypnum polare*	Hair Silk Moss	*Plagiothecium piliferum*
Flapwort – Norfolk	*Leiocolea rutheana*	Knothole Moss	*Zygodon forsteri*
Grimmia – Blunt-leaved	*Grimmia unicolor*	Large Yellow Feather Moss	*Scorpidium turgescens*
Petalwort	*Petalophyllum ralfsii*	Millimetre Moss	*Micromitrium tenerum*
Lindenberg's Leafy-Liverwort	*Adelanthus lindenbergianus*	Multi-fruited River Moss	*Cryphaea lamyana*
Feather-moss Slender Green	*Drepanocladus vernicosus*	Nowell's Limestone Moss	*Zygodon gracilis*
Alpine Copper-Moss	*Mielichoferia meilicoferia*	Rigid Apple Moss	*Bartramia stricta*
Baltic Bog-Moss	*Sphagnum balticum*	Round-leaved feather Moss	*Rhynchostegium rotundifolium*
Blue Dew-Moss	*Saelania glaucescens*	Schleicher's Thread Moss	*Bryum schleicheri*
Blunt-leaved bristle-Moss	*Orthotrichum obtusifolium*	Triangular Pygmy Moss	*Acaulon triquetrum*
Bright-Green Cave-Moss	*Cyclodictyon laetevirens*	Turpswort	*Geocalyx graveolens*
Cordate Beard Moss	*Barbula cordata*	Vaucher's Feather Moss	*Hypnum vaucheri*
Cornish Path Moss	*Ditrichum cornubicum*	Western Rustwort	*Marsupella profunda*
Derbyshire Feather Moss	*Thamnobryum angustifolium*		

[7] Includes both subspecies: *perennis* & *prostratus*

Stoneworts – Full Protection under Schedule 8 at all times			
Bearded Stonewort	*Chara canescens*	Foxtail Stonewort	*Lamprothamnium papullosum*
Lichens – Full Protection under Schedule 8 at all times			
New Forest Beech Lichen	*Enterographa elaborata*	Forked Hair Lichen	*Bryoria furcellata*
Snow Caloplaca	*Caloplaca nivalis*	Golden Hair Lichen	*Teloschistes flavicans*
Tree Catapyrenium	*Catapyrenium psoromoides*	Orange-fruited Elm Lichen	*Caloplaca luteoalba*
Laurer's Catillaria	*Catillaria laurei*	River Jelly Lichen	*Collema dichotomum*
Convoluted Cladonia	*Cladonia convoluta*	Starry Breck Lichen	*Buellia asterella*
Upright Mountain Cladonia	*Cladonia stricta*	Caledonia Pannaria	*Pannaria ignobilis*
Goblin Lights	*Catolechia wahlenbergii*	New Forest Parmelia	*Parmelia minarum*
Elm Gyalecta	*Gyalecta ulmi*	Oil Stain Parmentaria	*Parmentaria chilensis*
Tarn Lecanora	*Lecanora archariana*	Southern Grey Physcia	*Physcia tribacioides*
Copper Lecidea	*Lecidea inops*	Ragged Pseudo-cyphellaria	*Pseudocyphellaria lacerata*
Arctic Kidney Lichen	*Nephroma arcticum*	Rusty Alpine Psora	*Psora rubiformis*
Ciliate Strap Lichen	*Heterodermia leucomelos*	Rock Nail	*Calicium corynellum*
Coralloid Rosette Lichen	*Heterodermia propagulifera*	Serpentine Selanopsora	*Selanopsora liparina*
Ear-lobed Dog Lichen	*Peltigera lepidophora*	Sulphur Tresses	*Alectoria ochroleuca*
Lichens – Partial Protection under Section 13 (2) Commercial Exploitation and Sale Only			
Tree Lungwort	*Lobaria pulmonaria*		
Fungi – Full Protection under Schedule 8 at all times			
Royal Bolete	*Boletus regius*	Oak Polypore	*Buglossosporus pulvinus*
Hedgehog Fungus	*Hericium erinaceum*	Sandy Stilt Ball	*Battaria phalloides*
Invasive plant species listed in Schedule 9			
Australian swamp stonecrop or New Zealand pygmyweed	*Crassula helmsii*	Japanese rose	*Rosa rugosa*
Californian red seaweed	*Pikea californica*	Japanese seaweed	*Sargassum muticum*
Curly waterweed	*Lagarosiphon major*	Laver seaweeds (except native species)	*Porphyra* spp
Duck potato	*Sagittaria latifolia*	Parrot's-feather	*Myriophyllum aquaticum*
Entire-leaved cotoneaster	*Cotoneaster integrifolius*	Perfoliate alexanders	*Smyrnium perfoliatum*
False Virginia creeper	*Parthenocissus inserta*	Pontic rhododendron	*Rhododendron ponticum*
Fanwort or Carolina water-shield	*Cabomba caroliniana*	Purple dewplant	*Disphyma crassifolium*
Few-flowered garlic	*Allium paradoxum*	Red algae	*Grateloupia luxurians*
Floating pennywort	*Hydrocotyle ranunculoides*	Rhododendron	*Rhododendron ponticum* × *Rhododendron maximum*
Floating water primrose	*Ludwigia peploides*	Small-leaved cotoneaster	*Cotoneaster microphyllus*
Giant hogweed	*Heracleum mantegazzianum*	Three-cornered garlic	*Allium triquetrum*
Giant kelp	*Macrocystis* spp.	Variegated yellow archangel	*Lamiastrum galeobdolon* subsp. *argentatum*
Giant knotweed	*Fallopia sachalinensis*	Virginia creeper	*Parthenocissus quinquefolia*
Giant rhubarb	*Gunnera tinctoria*	Wakame	*Undaria pinnatifida*
Giant salvinia	*Salvinia molesta*	Wall cotoneaster	*Cotoneaster horizontalis*
Green seafingers	*Codium fragile*	Water fern	*Azolla filiculoides*

Himalayan cotoneaster	*Cotoneaster simonsii*	Water hyacinth	*Eichhornia crassipes*
Hollyberry cotoneaster	*Cotoneaster bullatus*	Water lettuce	*Pistia stratiotes*
Hooked asparagus seaweed	*Asparagopsis armata*	Water primrose	*Ludwigia grandiflora*
Hottentot fig	*Carpobrotus edulis*	Water primrose	*Ludwigia uruguayensis*
Hybrid knotweed	*Fallopia japonica* × *Fallopia sachalinensis*	Waterweeds	*Elodea* spp.
Indian (Himalayan) balsam	*Impatiens glandulifera*	Yellow azalea	*Rhododendron luteum*
Japanese knotweed	*Reynoutria japonica*		

Protection of Badgers Act 1992

The main legislation protecting badgers in England and Wales is the Protection of Badgers Act 1992 (the 1992 Act). Under the 1992 Act it is an offence to: wilfully kill, injure, take or attempt to kill, injure or take a badger; dig for a badger; interfere with a badger sett by, damaging a sett or any part thereof, destroying a sett, obstructing access to a sett, causing a dog to enter a sett or disturbing a badger while occupying a sett.

The 1992 Act defines a badger sett as: "any structure or place which displays signs indicating current use by a badger"

Natural Environment and Rural Communities Act 2006

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of Habitats and Species which are of Principal Importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 Habitats of Principal Importance and 1,150 Species of Principal Importance.

Hedgerow Regulations 1997

The Hedgerow Regulations were made under Section 97 of the Environment Act 1995 and came into force in 1997. They introduced new arrangements for local planning authorities in England and Wales to protect important hedgerows in the countryside, by controlling their removal through a system of notification. Important hedgerows are defined by complex assessment criteria, which draw on biodiversity features, historical context and the landscape value of the hedgerow.

Birds of Conservation Concern

This is a review of the status of all birds occurring regularly in the United Kingdom. It is regularly updated and is prepared by leading bird conservation organisations, including the British Trust for Ornithology (BTO), Joint Nature Conservation Committee (JNCC) and The Royal Society for the Protection of Birds (RSPB).

The latest report was produced in 2015 (Eaton *et al*, 2015) and identified 67 red list species, 96 amber species, and 81 green species. The criteria are complex, but generally:

- **Red list** species are those that have shown a decline of the breeding population, non-breeding population or breeding range of more than 50% in the last 25 years.
- **Amber list** species are those that have shown a decline of the breeding population, non-breeding population or breeding range of between 25% and 50% in the last 25 years. Species that have a UK breeding population of less than 300 or a non-breeding population of less than 900 individuals are also included, together with those whose 50% of the population is localised in 10 sites or fewer and those whose 20% of the European population is found in the UK.
- **Green list** species are all regularly occurring species that do not qualify under any of the red or amber criteria are green listed

Global IUCN Red List

The International Union for Conservation of Nature (IUCN) Threatened Species was devised to provide a list of those species that are most at risk of becoming extinct globally. It provides taxonomic, conservation status and distribution information about threatened taxa around the globe.

The system catalogues threatened species into groups of varying levels of threat, which are: Extinct (EX), Extinct in the Wild (EW), Critically Endangered (CE), Endangered (EN), Vulnerable (VU), Near Threatened (NT), Least Concern (LC), Data Deficient (DD), Not Evaluated (NE). Criteria for designation into each of the categories is complex, and consider several principles.

Local Biodiversity Action Plan (LBAP)

Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level), and are usually drawn up by a consortium of local Government organisations and conservation charities.

Some LBAP's may also include Habitat Action Plans (HAP) and/or Species Action Plans (SAP), which are used to guide and inform the local decision making process.

Wild Mammals (Protection) Act 1996

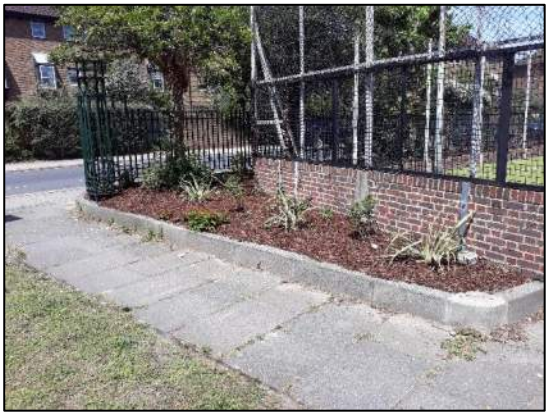
This Act offers protects a form of protection to all wild species of mammals, irrespective of other legislation, and focussed on animal welfare, rather than conservation.

Unless covered by one of the exceptions, a person is guilty of an offence if he mutilates, kicks, beats, nails or otherwise impales, stabs, burns, stones, crushes, drowns, drags or asphyxiates any wild mammal with intent to inflict unnecessary suffering.

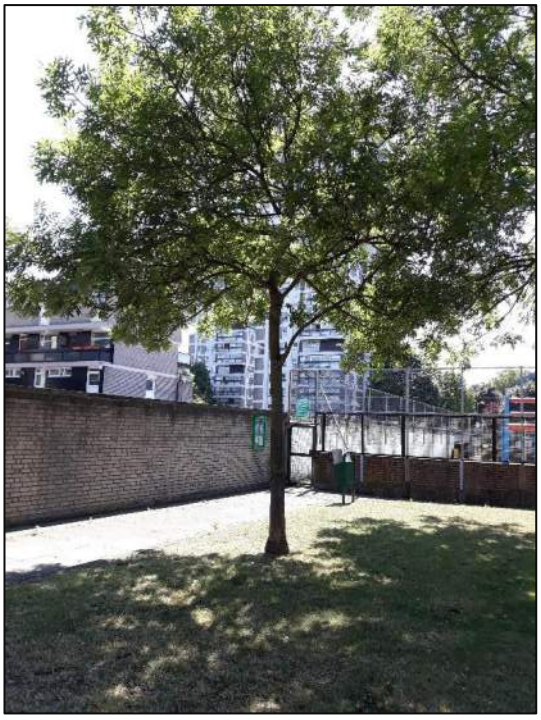
It's application is typically restricted to preventing deliberate harm to wildlife (in general) during construction works etc.

Appendix C – Relevant Desk Study Data

Appendix D – Target Notes

Target Note	Description	Photograph
1	Introduced shrub TQ 26928 76980 A raised bed of wood chippings, scattered trees and introduced shrubs. Species include: Oregon grape *Mahonia aquifolium,* hawthorn *Crataegus monogyna*, Butcher's broom *Ruscus aculeatus*, Smoke bush *Cotinus*, Mexican orange *Choisya ternate* and European elder *Sambucus nigra*.	
2	Parkland scattered trees TQ 26964 76995 Scattered trees are present along the northern and western boundaries of the site. Trees included: field maple *Acer campestre*, hawthorn, European elder *Sambucus nigra*, *False acacia*, horse chestnut *Aesculus hippocastanum* and Norway maple *Acer platanoides.*	
3	Species-Poor Intact Hedgerow TQ 26909 76950 A species-poor intact hedgerow is present along the northern boundary of the site. Species include red escallonia *Escallonia rubra,* New Zealand hebe *Hebe speciosa*, grey-leaved cistus *Cistus albidus*, and silver-leaf Cotoneaster *C. pannosus* which is not invasive.	

Target Note	Description	Photograph
4	Amenity Grassland TQ 26919 76957 & TQ 26956 76992 Amenity grassland is present in the north-eastern and north-western section of site. Species include: daisy *Bellis perennis*, white clover *Trifolium repens*, knotted hedge parsley *Torilis nodosa*, dove's-foot crane's-bill *Geranium mole*, common cat's ear *Hypochaeris radicata*, yarrow *Achillea millefolium*, ribwort plantain *Plantago lanceolate*, wall barley *Hordeum murinum*, dandelion *Taraxacum sp*, common cat's ear *Hypochaeris radicata*, common mallow *Malva sylvestris* , shephard's-purse *Capsella bursa-pastoris* and field bindweed *Convolvulus arvensis*.	
5	'Other' Habitat TQ 26936 76971 A basketball court with astroturf is present in the northern section of the site.	
6	Hard standing TQ 26934 76946	

Target Note	Description	Photograph
7	Buildings (B1, B2 & B3) See Table 4 in Section 3.3.3 for descriptions.	
8	TQ 26951 76995 False acacia located in the north-east of the site.	

ecology@wyg.com

WYG Environment Planning Transport Limited.

Registered in England & Wales Number: 3050297
Registered Office: Arndale Court, Headingley, Leeds, LS6 2UJ

creative minds safe hands