
**The Boathouse
Twickenham**

Report for:
The Boathouse Twickenham Limited
The Boathouse
Ranelagh Drive
Twickenham
TW1 1QZ

INTRODUCTION

AA Environmental Limited (AAe) has been commissioned by The Boathouse Twickenham Limited to carry out an ecological survey of the site. The purpose of the survey was to determine the existence and location of any ecologically valuable areas and to record any evidence of protected species. This information will serve to assess the ecological impact of the proposals and identify any ecological constraints and/or mitigation measures that may be required. A series of photographs has been attached for reference.

The re-development proposals are to demolish the existing building and outbuildings to provide three residential dwellings including associated landscaping works, provision of parking and works to the public realm.

METHODOLOGY

Baseline Data

Baseline ecological data was obtained from Greenspace Information for Greater London (GIGL) for the site and a 2 km study area. In addition, as certain baseline data is now readily available on the internet, the Multi-agency website (www.magic.defra.gov.uk) was consulted to determine whether any part of the site or nearby habitats have been statutorily or otherwise designated and whether any bat licences have been granted within 1 km of the site. Also a review of Google Earth's satellite imagery (http://www.google.co.uk/intl/en_uk/earth/index.html) was completed to determine past land uses of the site and surrounding land.

Walk-over Site Survey

During the walk-over survey, particular attention was paid to record the presence of badgers, bats, herpetofauna (amphibians and reptiles) and otters that may be using the site or present in adjacent habitats, in accordance with the following survey methodologies:

Badgers

Badgers (*Meles meles*) and their setts are protected by the *Protection of Badgers Act 1992*, under which it is an offence to harm badgers or their setts. A sett is defined as "any structure or place which displays signs indicating current use by a badger". Natural England has provided the following guidance on the interpretation of current use:

A sett is defined as such (and thus protected) as long as signs indicative of 'current use' are present. Thus, a sett remains protected by the Act until such times as the signs (i.e. 'field signs') have deteriorated or decayed to such an extent that they indicate that the sett is no longer in 'current use'.

A thorough survey of the whole site and adjacent habitats, where access was available, was carried out. Particular attention was paid to dense areas of vegetation to check for any evidence of badger activity, which is usually detected by any one or more of the following signs:

- presence of holes with evidence of badger, such as footprints, discarded hair, etc.;
- presence of dung pits and latrines;
- presence of well-used runs with subsidiary evidence of badger activity; and

- presence of other indications of badger activity, such as signs of foraging and footprints.

Bats

Currently there are 17 species of bat known to breed in the UK. All species and their roosts are protected under Regulation 41 of *The Conservation of Habitats and Species Regulations 2010 (as amended)*. As a signatory to the *Bonn Convention (Agreement on the Conservation of Bats in Europe)* the UK is also required to protect their habitats. This legislation makes it illegal to kill, injure, capture or disturb bats, or to obstruct access to, damage or destroy bat roosts. Under the law, a roost is any structure or place used for shelter or protection.

A visual survey of the site was completed to record any evidence of bats or features that could provide potential roosting opportunities by an experienced and licensed ecologist¹. The survey was carried out following the guidelines provided by the Bat Conservation Trust². A thorough internal and external examination of the existing buildings was carried out, with any potential access points inspected for evidence of bats. All internal roof voids/spaces, where present, were accessed to check for any evidence of bats.

In addition, a careful inspection of each tree on the site was carried out to identify those features that are important for roosting bats. Surveying trees presents particular problems at any time of the year as bats will use a wide variety of roost sites in cavities, splits, cracks, knotholes and under loose bark, many of which are not easily detected from the ground.

Each tree was assessed in accordance with the following criteria:

- **Negligible** – negligible habitat features likely to be used by roosting bats.
- **Low** – a tree of sufficient size and age to contain potential roosting features (PRFs) but with none seen from the ground or features seen with only very limited roosting potential.
- **Moderate** – a tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
- **High** – a tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

The surrounding habitat was also surveyed to identify any important features such as mature trees with suitable features for roosting bats and any established lines of vegetation that might provide important flightlines.

Evidence of bats is usually detected by any one or more of the following signs:

- the presence of bat droppings, which tend to accumulate under established roost sites or at roost entrances;
- the accumulation of large numbers of moth wings, which have been discarded by feeding bats;
- areas of staining by urine or from fur rubbing; and
- the presence of bats themselves or their corpses.

The visual survey was facilitated by the use of binoculars, ladders, powerful torches (1M candlepower) and a Ridgid Micro CA-350 Inspection Camera endoscope. A heterodyne bat detector (Pettersson D200) was also utilised to record any bat calls during the survey.

¹ Lead surveyor was Alan Beaumont, BSc (Hons), MSc. MCIEEM.

² Collins, J. (ed) (2016) *Bat Surveys for Professional Ecologists: Good Practice Guidelines* (3rd edition). The Bat Conservation Trust, London.

Herpetofauna

Amphibians

All amphibian species have some level of protection under the *Wildlife and Countryside Act 1981 (as amended)*. Great crested newts (*Triturus cristatus*) are protected under the *Wildlife and Countryside Act 1981 (as amended)* and *The Conservation of Habitats and Species Regulations 2010 (as amended)*. The intentional or reckless killing, injury or taking, and intentional or reckless disturbance of great crested newts whilst occupying a 'place used for shelter or protection' is prohibited, as is the destruction of these places.

Reptiles

All reptile species are protected at some level under Schedule 5 of the *Wildlife and Countryside Act 1981 (as amended)* and *The Conservation of Habitats and Species Regulations 2010 (as amended)*. The more common species of reptiles, which include slow-worm (*Anguis fragilis*), common or viviparous lizard (*Zootoca vivipara*), adder (*Vipera berus*) and grass snake (*Natrix helvetica*) are protected by the *Wildlife and Countryside Act 1981 (as amended)* by part of Section 9(1) and all of Section 9(5). This means that they are protected against intentional or reckless killing and injuring (but not 'taking') and against sale and transporting for sale.

An assessment of the site was carried out to determine its suitability for herpetofauna by recording the habitats present. In addition, any natural/artificial refugia present on the site was lifted to check for any sheltering animals or evidence of animals, such as sloughs (shed skins).

Otters

Otters are protected under the *Wildlife and Countryside Act 1981 (as amended)* and *The Conservation of Habitats and Species Regulations 2010 (as amended)*. Under this legislation it is an offence to intentionally kill, injure or take (capture) an otter; intentionally or recklessly damage, destroy or obstruct access to any structure or place which otters use for shelter or protection, or to disturb an animal while it is occupying a structure or place which it uses for that purpose.

The survey was undertaken with reference to Monitoring Otter (Life in UK Rivers), the Design Manual for Roads and Bridges: Volume 10, Section 4, Part 4 (Highways Agency, 2001) and The New Rivers and Wildlife Handbook (RSPB, NRA and RSNC, 1995). A detailed inspection of the banks of the River Thames to record any signs of otters, as well as assessing any areas that could provide lying up/resting places for otters, was carried out. Field signs for otters include:

- footprints and slides (where otters regularly enter water);
- spraints; and
- feeding remains.

Other Wildlife

In accordance with good practice, the site was checked for any evidence of other protected species or species of particular note.

RESULTS

Baseline Data

A summary of the baseline data obtained from GIGL has been provided below and detailed in Table 1; please note, a copy of the report has not been included but can be requested by the Local Planning Authority³.

³ GIGL data is issued under licence and therefore can only be accessed by those named in the initial Data Search Request.

There are no ecological statutory designated sites located on or directly adjacent to the site. The nearest statutory designated site is Isleworth Ait Local Nature Reserve (LNR), located approximately 0.4 km to the north of the site. The nearest non-statutory site is the River Thames and tidal tributaries Site of Importance for Nature Conservation (SINC) located adjacent to the site. The majority of protected species records were supplied with specific 6-figure grid references, allowing a high-resolution indication of their locations. There are no records of protected species recorded on or adjacent to the site. Further details of designated sites and protected species are provided in Table 1.

According to the Multi-agency website, there are no Habitats of Principal Importance (HPIs) on the site, with the closest being an area of Deciduous Woodland located 12 m to the south of the site. There was a single bat licence granted within the 1 km study area for the destruction of a resting place used by common pipistrelle (*Pipistrellus pipistrellus*) (EPSM2009-1356), located 0.35 km to the west of the site.

Google Earth Imagery shows that the site has remained relatively unchanged since at least 1999, being dominated by the existing buildings associated hardstanding and garden.

Table 1: Summary of Data Search Results (GiGL)

Statutory Designated Sites		
Description	Protection/designation	Distance/Direction
Syon Park	SSSI	1.06 km to the N
Ham Lands	LNR	1.86 km to the S
Isleworth Ait	LNR	0.39 km to the N
Non-Statutory Designated Sites		
Description	Protection/designation	Distance/Direction
River Thames and tidal tributaries	SINC	0.015 km to the NE
Tide Meadow at Syon Park	SINC	1.1 km to the N
Richmond Park and associated areas	SINC	1.8 km to the SE
Ham Lands	SINC	1.87 km to the S
Royal Botanic Gardens, Kew	SINC	1.35 km to the NE
Mogden Sewage Works	SINC	1 km to the W
Duke of Northumberland's River at Isleworth	SINC	0.9 km to the N
Syon Park	SINC	1.06 km to the N
Duke of Northumberland's River at Woodlands	SINC	1.43 km to the NW
Royal Mid-Surrey Golf Course	SINC	0.25 km to the N
Duke of Northumberland's River north of Kneller Road	SINC	1.6 km to the W
River Crane at St Margarets	SINC	0.56 km to the SW
Hounslow Loop Railsides	SINC	1.84 km to the NW
Petersham Meadows	SINC	1.46 km to the SE
The Copse, Holly Hedge Field and Ham Avenues	SINC	1.94 km to the S
Petersham Lodge Wood and Ham House Meadows	SINC	1.77 km to the S
River Crane at St Margaret's (Richmond side)	SINC	0.56 km to the SW
Marble Hill Park and Orleans House Gardens	SINC	1.17 km to the S
Terrace Field and Terrace Garden	SINC	1.41 km to the SE
Twickenham Junction Rough	SINC	1.59 km to the SW
Twickenham Road Meadow	SINC	0.35 km to the E
Moor Mead Recreation Ground	SINC	0.88 km to the SW
Protected/notable Species		
Description	Protection/designation	Distance/Direction
Common Frog (<i>Rana temporaria</i>)	Protected Species (against sale)	177 m to the SW
Stag Beetle (<i>Lucanus cervus</i>)	European Protected Species, Protected Species (against sale) & Priority Species	342 m to the W
Black Redstart (<i>Phoenicurus ochruros</i>)	Protected Species	425 m to the SE
Common Scoter (<i>Melanitta nigra</i>)	Protected Species & Priority Species	425 m to the SE
Crossbill (<i>Loxia curvirostra</i>)	Protected Species	425 m to the SE
Cuckoo (<i>Cuculus canorus</i>)	Priority Species	425 m to the SE
Brown Long-eared Bat (<i>Plecotus auritus</i>)	European Protected Species, Protected	444 m to the N

	Species & Priority Species	
Daubenton's Bat (<i>Myotis daubentonii</i>)	European Protected Species & Protected Species	614 m to the SW
Green Sandpiper (<i>Tringa ochropus</i>)	Protected Species	702 m to the N
Lesser Redpoll (<i>Carduelis cabaret</i>)	Priority Species	702 m to the N
Osprey (<i>Pandion haliaetus</i>)	Protected Species	702 m to the N
Common Lizard (<i>Zootoca vivipara</i>)	Protected Species & Priority Species	746 m to the S
Bat (<i>Chiroptera</i>)	European Protected Species, Protected Species	828 m to the S
Herring Gull (<i>Larus argentatus</i>)	Priority Species	870 m to the NW
Red Kite (<i>Milvus milvus</i>)	Protected Species	870 m to the NW
Linnet (<i>Linaria cannabina</i>)	Priority Species	970 m to the NE
Long-eared Bat species (<i>Plecotus</i>)	European Protected Species, Protected Species	1008 m to the SE
House Sparrow (<i>Passer domesticus</i>)	Priority Species	1010 m to the S
Bittern (<i>Botaurus stellaris</i>)	Protected Species & Priority Species	1045 m to the S
Firecrest (<i>Regulus ignicapilla</i>)	Protected Species	1087 m to the N
Soprano Pipistrelle (<i>Pipistrellus pygmaeus</i>)	European Protected Species, Protected Species & Priority Species	1369 m to the E
Cut-grass (<i>Leersia oryzoides</i>)	Protected Species & Priority Species	1410 m to the NE
Swallowtail (<i>Papilio machaon</i>)	Protected Species	1467 m to the N
Marsh Fritillary (<i>Euphydryas aurinia</i>)	European Protected Species, Protected Species & Priority Species	1476 m to the S
West European Hedgehog (<i>Erinaceus europaeus</i>)	Priority Species	1485 m to the S
Cornflower (<i>Centaurea cyanus</i>)	Priority Species	1492 m to the N
Nathusius's Pipistrelle (<i>Pipistrellus nathusii</i>)	European Protected Species & Protected Species	1497 m to the S
Bats (<i>Vespertilionidae</i>)	Protected Species	1508 m to the SW
Starling (<i>Sturnus vulgaris</i>)	Priority Species	1512 m to the S
Dunnock (<i>Prunella modularis</i>)	Priority Species	1521 m to the S
Brambling (<i>Fringilla montifringilla</i>)	Protected Species	1543 m to the SE
Fieldfare (<i>Turdus pilaris</i>)	Protected Species	1562 m to the N
Serotine (<i>Eptesicus serotinus</i>)	European Protected Species & Protected Species	1569 m to the S
Natterer's Bat (<i>Myotis nattereri</i>)	European Protected Species & Protected Species	1593 m to the SE
Cinnabar (<i>Tyria jacobaeae</i>)	Priority Species	1595 m to the N
Noctule Bat (<i>Nyctalus noctula</i>)	European Protected Species, Protected Species & Priority Species	1612 m to the S
Great Crested Newt (<i>Triturus cristatus</i>)	European Protected Species, Protected Species & Priority Species	1631 m to the NE
Merlin (<i>Falco columbarius</i>)	Protected Species	1634 m to the NE
Skylark (<i>Alauda arvensis</i>)	Priority Species	1634 m to the NE
Tree Sparrow (<i>Passer montanus</i>)	Priority Species	1634 m to the NE
Lesser Noctule (<i>Nyctalus leisleri</i>)	European Protected Species & Protected Species	1652 m to the SE
Myotis Bat species (<i>Myotis</i>)	European Protected Species, Protected Species	1677 m to the S
Greater Water-parsnip (<i>Sium latifolium</i>)	Priority Species	1689 m to the N
European Eel (<i>Anguilla anguilla</i>)	Priority Species	1715 m to the S
Kingfisher (<i>Alcedo atthis</i>)	Protected Species	1731 m to the S
Pipistrelle Bat species (<i>Pipistrellus</i>)	European Protected Species, Protected Species	1731 m to the S
European Water Vole (<i>Arvicola amphibius</i>)	Protected Species & Priority Species	1739 m to the NW
Common Toad (<i>Bufo bufo</i>)	Protected Species (against sale) & Priority Species	1742 m to the S
Redwing (<i>Turdus iliacus</i>)	Protected Species	1744 m to the SE
Curlew (<i>Numenius arquata</i>)	Priority Species	1746 m to the E
White Admiral (<i>Limenitis camilla</i>)	Priority Species	1746 m to the SE
Bluebell (<i>Hyacinthoides non-scripta</i>)	Protected Species	1778 m to the NE

Harbour Seal (<i>Phoca vitulina</i>)	European Protected Species	1810 m to the S
Chamomile (<i>Chamaemelum nobile</i>)	Priority Species	1828 m to the N
Scaup (<i>Aythya marila</i>)	Protected Species & Priority Species	1840 m to the S
Song Thrush (<i>Turdus philomelos</i>)	Priority Species	1842 m to the SE
Large Heath (<i>Coenonympha tullia</i>)	Protected Species & Priority Species	1883 m to the NE
Spotted Flycatcher (<i>Muscicapa striata</i>)	Priority Species	1890 m to the W
Slow-worm (<i>Anguis fragilis</i>)	Protected Species & Priority Species	1926 m to the NW
Dusky Thorn (<i>Ennomos fuscantaria</i>)	Priority Species	2000 m to the E
Common Pipistrelle (<i>Pipistrellus pipistrellus</i>)	European Protected Species & Protected Species	2002 m to the W
White Ermine (<i>Spilosoma lubricipeda</i>)	Priority Species	2005 m to the W
Protected/notable Species (Coarse Resolution Records)		
Description	Protection/designation	Record Accuracy
A Bat (<i>Nyctalus/Eptesicus</i> agg.)	European Protected Species, Protected Species	1km
Pipistrelle (<i>Pipistrellus pipistrellus</i>)	European Protected Species & Protected Species	1km
Divided Sedge (<i>Carex divisa</i>)	Priority Species	1km
Darnel (<i>Lolium temulentum</i>)	Priority Species	1km
Grape-hyacinth (<i>Muscari neglectum</i>)	Priority Species	1km
Tubular Water-dropwort (<i>Oenanthe fistulosa</i>)	Priority Species	1km
Grass-wrack Pondweed (<i>Potamogeton compressus</i>)	Priority Species	1km
Spreading Hedge-parsley (<i>Torilis arvensis</i>)	Priority Species	1km
Wall (<i>Lasiommata megera</i>)	Priority Species	1km
Small Heath (<i>Coenonympha pamphilus</i>)	Priority Species	1km, 2km
Tower Mustard (<i>Arabis glabra</i>)	Priority Species	1km, 2km, 10km
Stinking Goosefoot (<i>Chenopodium vulvaria</i>)	Protected Species & Priority Species	1km, 2km, 10km
Corn Buttercup (<i>Ranunculus arvensis</i>)	Priority Species	1km, 2km, 10km
Field Eryngo (<i>Eryngium campestre</i>)	Protected Species & Priority Species	2km
Field Cow-wheat (<i>Melampyrum arvense</i>)	Protected Species	2km
Small Fleabane (<i>Pulicaria vulgaris</i>)	Protected Species & Priority Species	2km
White-letter Hairstreak (<i>Satyrrium w-album</i>)	Protected Species & Priority Species	2km
Brown Hairstreak (<i>Thecla betulae</i>)	Protected Species & Priority Species	2km
Starfruit (<i>Damasonium alisma</i>)	Protected Species & Priority Species	2km, 10km
Pennyroyal (<i>Mentha pulegium</i>)	Protected Species & Priority Species	2km, 10km
Triangular Club-rush (<i>Schoenoplectus triquetar</i>)	Protected Species & Priority Species	2km, 10km
Grey Dagger (<i>Acronicta psi</i>)	Priority Species	2km, 10km
Rampion Bellflower (<i>Campanula rapunculus</i>)	Priority Species	10km
Caraway (<i>Carum carvi</i>)	Priority Species	10km
Red Star-thistle (<i>Centaurea calcitrapa</i>)	Priority Species	10km
Deptford Pink (<i>Dianthus armeria</i>)	Protected Species & Priority Species	10km
Corn Cleavers (<i>Galium tricornutum</i>)	Priority Species	10km
Wild Candytuft (<i>Iberis amara</i>)	Priority Species	10km
Bastard Balm (<i>Melittis melissophyllum</i>)	Priority Species	10km
Spiked Rampion (<i>Phyteuma spicatum</i>)	Protected Species & Priority Species	10km
Marsh Stitchwort (<i>Stellaria palustris</i>)	Priority Species	10km
Knot Grass (<i>Acronicta rumicis</i>)	Priority Species	10km
Flounced Chestnut (<i>Agrochola helvola</i>)	Priority Species	10km
Brown-spot Pinion (<i>Agrochola litura</i>)	Priority Species	10km
Beaded Chestnut (<i>Agrochola lychnidis</i>)	Priority Species	10km
Green-brindled Crescent (<i>Allophyes oxyacanthae</i>)	Priority Species	10km
Ear Moth (<i>Amphipoea oculea</i>)	Priority Species	10km
Mouse Moth (<i>Amphipyra tragopoginis</i>)	Priority Species	10km
Dusky Brocade (<i>Apamea remissa</i>)	Priority Species	10km
Deep-brown Dart (<i>Aporophyla lutulenta</i>)	Priority Species	10km
Garden Tiger (<i>Arctia caja</i>)	Priority Species	10km
Sprawler (<i>Asteroscopus sphinx</i>)	Priority Species	10km
Mottled Rustic (<i>Caradrina morpheus</i>)	Priority Species	10km
Streak (<i>Chesias legatella</i>)	Priority Species	10km

Latticed Heath (<i>Chiasmia clathrata</i>)	Priority Species	10km
Goat Moth (<i>Cossus cossus</i>)	Priority Species	10km
Small Square-spot (<i>Diarsia rubi</i>)	Priority Species	10km
September Thorn (<i>Ennomos erosaria</i>)	Priority Species	10km
Autumnal Rustic (<i>Eugnorisma glareosa</i>)	Priority Species	10km
Spinach (<i>Eulithis mellinata</i>)	Priority Species	10km
Garden Dart (<i>Euxoa nigricans</i>)	Priority Species	10km
Ghost Moth (<i>Hepialus humuli</i>)	Priority Species	10km
Rustic (<i>Hoplodrina blanda</i>)	Priority Species	10km
Rosy Rustic (<i>Hydraecia micacea</i>)	Priority Species	10km
Brindled Beauty (<i>Lycia hirtaria</i>)	Priority Species	10km
V-moth (<i>Macaria wauaria</i>)	Priority Species	10km
Lackey (<i>Malacosoma neustria</i>)	Priority Species	10km
Dot Moth (<i>Melanchra persicariae</i>)	Priority Species	10km
Powdered Quaker (<i>Orthosia gracilis</i>)	Priority Species	10km
Dark Spinach (<i>Pelurga comitata</i>)	Priority Species	10km
Mullein Wave (<i>Scopula marginepunctata</i>)	Priority Species	10km
Shaded Broad-bar (<i>Scotopteryx chenopodiata</i>)	Priority Species	10km
Hedge Rustic (<i>Tholera cespitis</i>)	Priority Species	10km
Feathered Gothic (<i>Tholera decimalis</i>)	Priority Species	10km
Blood-vein (<i>Timandra comae</i>)	Priority Species	10km
Four-spotted (<i>Tyta luctuosa</i>)	Priority Species	10km
Oak Hook-tip (<i>Watsonalla binaria</i>)	Priority Species	10km
Dark-barred Twin-spot Carpet (<i>Xanthorhoe ferrugata</i>)	Priority Species	10km
Protected/notable species (Confidential Records)		
Description	Protection/designation	
Nightjar (<i>Caprimulgus europaeus</i>)	Priority Species	
Cetti's Warbler (<i>Cettia cetti</i>)	Protected Species	
Peregrine (<i>Falco peregrinus</i>)	Protected Species	
Hobby (<i>Falco subbuteo</i>)	Protected Species	
Turtle Dove (<i>Streptopelia turtur</i>)	Priority Species	
Eurasian Badger (<i>Meles meles</i>)	Badgers Act (1992)	
Lizard Orchid (<i>Himantoglossum hircinum</i>)	Protected Species	

NB: All distances are calculated from the centre of the site, National Grid Reference: TQ 168750.

LNR = Local Nature Reserve. SINC = Site of Importance for Nature Conservation.

European Protected Species = species listed under *The Habitats Directive Annexes II and IV*.

Protected Species = species listed under the *Wildlife and Countryside Act 1981 (as amended)* Schedules 1, 5 and 8.

Priority Species = species listed under the *Natural Environment and Rural Communities (NERC) Act 2006* Section 41.

Site Description (Photographs 1-4)

The site is located off Ranelagh Drive in Twickenham, centred at National Grid Reference: TQ 168750 and covers an area of approximately 0.1 of a hectare. The site is bordered by Ranelagh Drive to the south, residential properties and associated gardens to west, and the river Thames to the north and east. The site comprised a roughly triangular piece of land dominated by the buildings, hardstanding and associated garden which had been recently cleared, with a few individual trees present.

The main building was of masonry construction, with a pitched and hipped engineered interlocking tiled roof and a section of flat roof covered in bitumen-based felt used as a balcony. There were timber soffits/fascias present and certain elevations had uPVC cladding. There was a conservatory present at the rear elevation. Internally, there was a single attic space, which was insulated with mineral wool (on the floor and between the rafters). There was a double detached garage, which was masonry constructed with a flat felt covered roof.

The garden had been recently cleared and largely devoid of any vegetation. Species recorded included rose (*Rosa sp.*), wilson's honeysuckle (*Lonicera nitida*), butterfly-bush (*Buddleja davidii*), green alkanet (*Pentaglottis sempervirens*) and Wisteria (*Wisteria sp.*), with common ivy (*Hedera helix*) and climbing rose on the side of the main building. There were two semi-mature silver birches (*Betula pendula*) and a semi-

mature cherry (*Prunus sp.*) tree present within the garden, with self-seeded ash (*Fraxinus excelsior*) and sycamore (*Acer pseudoplatanus*) saplings also present. Vegetation alongside the boundary of the Thames footpath included sowthistle (*Sonchus sp.*), hemlock water-dropwort (*Oenanthe crocata*), broad-leaved dock (*Rumex obtusifolius*), common nettle (*Urtica dioica*), elder (*Sambucus nigra*), pendulous sedge (*Carex pendula*) and aspen (*Populus tremula*).

Badgers

No evidence of badgers or their setts was recorded on or adjacent to the site. A few disused mammal holes were recorded on the site but these were confirmed to be used by foxes (*Vulpes vulpes*) due to size, shape and hair found.

Bats

No evidence of bats was recorded during the thorough internal and external inspection of the buildings. The roof tiles on the property were engineered and interlocking and consequently well aligned and tightly sealed, with no obvious access points recorded. In addition, the soffits/fascias were well-maintained and tightly sealed lacking any access points as was the uPVC cladding. Internally, the roof space was fully accessed and appeared well sealed, with cobwebs covering the exposed timbers, with only a few rodent (mouse) droppings found. The garage was fully accessed and lacked any separate roof space/void.

The trees in the garden were assessed to provide **negligible** roosting opportunities for bats due to their age and lack of any obvious PRFs. The site itself, dominated by the residential property and recently cleared garden, provided only limited foraging opportunities for bats but the adjacent River Thames will provide foraging habitat for a range of species.

Herpetofauna

There were no ponds on the site and therefore, no breeding opportunities for any species of amphibians. The site, being a residential plot, located in a residential area, does not provide suitable terrestrial habitat for any species of herpetofauna. In addition, despite a careful search of the site, no species of herpetofauna was seen or recorded sheltering under any refugia lifted. In addition, the closest known record returned by GiGL was common lizard located some distance from the site (0.75 km away).

Otters

No evidence of otters was recorded and although known to be active along the River Thames no record of otter was returned by GiGL.

Other Wildlife

Apart from a few common species of birds either on-site or flying overhead, a fox hole was recorded within the recently cleared garden.

CONCLUSIONS AND RECOMMENDATIONS

The re-development proposals are to demolish the existing building and outbuildings to provide three residential dwellings including associated landscaping works, provision of parking and works to the public realm.

There are no habitats of international, national, county or local importance that would be directly affected by the proposals. The site is of overall low ecological value, with the species recorded described as common or abundant and are found in similar places across much of Britain, with no evidence of protected species recorded.

Although there are considered to be no ecological constraints to the proposals, a series of generic mitigation measures, as detailed below, should be implemented to reduce any impact the development proposals may have on local wildlife. There is also an opportunity to implement some enhancement measures to increase the nature conservation value of the site in the long term in accordance with Government guidance as set out in National Planning Policy Framework (NPPF) 2021⁴.

A thorough examination of the existing buildings was completed, with all potential access points and/or roosting opportunities fully inspected for evidence of bats. The attic space was fully accessed and not complex allowing a thorough inspection and, therefore, there are considered to be no constraints to the survey findings. Although no evidence of bats was recorded and no further surveys are considered necessary, all site operatives should be made aware of current legislation protecting bats and their roosts. In the unlikely event of any bats being encountered on the site, then works should stop immediately and Natural England or AAe contacted so that appropriate advice can be provided.

It should be noted that all species of wild bird and their nests are protected under the *Wildlife and Countryside Act 1981 (as amended)*. Therefore, site clearance works should be timed to avoid the main bird nesting season, which, in general, runs from March to August inclusive. If this is not possible, a check should be carried out prior to any clearance works to ensure there are no active nests present.

Works on site will be carried out carefully to avoid any potential pollution to the adjacent River Thames, which is a sensitive receptor. Standard controls should be applied as detailed within the Pollution Prevention Guidelines produced by the Environment Agency.

All mammals are protected under the *Wild Mammals (Protection) Act 1996* and, therefore, prior to any site works a check should be made to make sure there are no active fox earths present on the site. The use of an animal repellent, such as Scoot, can be used to facilitate this.

In order to protect any vegetation to be retained, suitable fencing may be required at certain locations to reduce the possibility of any damage that could be caused during the works. To minimise accidental damage, any overhanging branches should be pruned back to suitable live growth points. All works should be undertaken by a suitably qualified and experienced specialist contractor and should conform to current industry best practice, i.e. BS 3998: 2010 '*Tree Work - Recommendations*'. The retention and protection of established vegetation will help to maintain existing commuting/foraging routes currently utilised by wildlife.

Any new boundary treatment should be designed to promote permeability of the site to minimise fragmentation and allow free movement of wildlife throughout the site, for example by strengthening/enhancing the existing boundary vegetation, planting up a series of new hedgerows and/or installing post and rail fences. If close boarded fences are required for security reasons these should be minimised and raised slightly off the ground (c. 150-200 mm) to allow animals to pass underneath.

As part of the proposals, soft landscaping will be carried out. Where any new planting is proposed it should aim to use native species, but where this is not practicable then species of known value for wildlife can be used. In particular, flowering plants will be of benefit to invertebrate species and shrubs and trees may provide nesting opportunities for birds once they become established. The River Thames path alongside the site will be improved with new planting using native species, full details will be agreed in consultation with the Environmental Agency.

The site could be further enhanced by providing roosting, nesting and sheltering opportunities for a range of species and the creation of new wildlife habitats, such as some of those recommended by the Chartered Institute of Ecology Environment and Management's recently published Biodiversity Net Gain Good Practice Guidance, and listed below:

- Nest boxes
- Bug hotels
- Bat boxes

⁴ Ministry of Housing, Communities and Local Government (2021). *National Planning Policy Framework*. London.

- Hedgehog houses
- Pollinator nest sites
- Planting wildflowers
- Sedum (biodiverse) roof

The effects of lighting on plants and animals are difficult to assess, but it is thought that lighting can adversely affect invertebrates, birds and bats. Although the site is currently well-lit from on-site sources and neighbouring developments and roads, in accordance with good practice, any new lighting to be introduced should be designed to minimise light spillage and pollution and not directed onto any wildlife boxes installed or onto the River Thames, which should remain dark. Internal lighting will be typical standard LED downlighting, table lamps and LED strip lighting within ceiling cornices. External lighting will be kept to a minimum and contained over the entrance doors and steps up to each house for safety and security purposes. The use of low level bollard lighting along paths and in borders will use downlights and be of appropriate luminaire specifications so as to minimise light spillage.

Overall, the findings of this ecological survey would indicate that there are no over-riding ecological constraints to the re-development proposals that would preclude planning permission being granted. A range of standard controls are available and deliverable to ensure that there would be no adverse impact on local wildlife that are using the site with a series of controls to be implemented to avoid contravention of current legislation. In addition, a range of enhancement measures have been included as part of the scheme, and if implemented effectively, would increase the nature conservation value of the site in the long term in accordance with Government guidance.

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Photograph Record Sheet



Photograph 1: Showing the site and the building 'The Boathouse'.



Photograph 2: Showing the well-sealed roof space.



Photograph 3: Showing the well-sealed tiled roof.



Photograph 4: Showing the detached double garage and associated hardstanding.

Rev.	Details	Drawn	Date
		Chkd.	
PROJECT The Boathouse Twickenham			
TITLE Photograph Record Sheet			
		AA Environmental Ltd Units 4-8 Cholswell Court Shippon Abingdon Oxon OX13 6HX T: 01235 536042 F: 01235 523849 info@aae-ltd.co.uk www.aae-ltd.co.uk	
Scale	Date 29.06.23	Drg No.	Rev.
NTS	Drawn NB	Chkd. ARB 223203/01	