The Ridge (Oatlands) LLP

16-18 Oatlands Drive
Weybridge

Ecological Report

Job No: 213316
December 2022

Environmental Consultants

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16-18 Oatlands Drive Weybridge

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1.0 INTRODUCTION

Overview

1.1 AA Environmental Limited (AAe) has been commissioned by The Ridge (Oatlands) LLP, to carry out an ecological survey of the redevelopment proposals at 16-18 Oatlands Drive in Weybridge. The aims of the survey were to:

- provide a description of the existing habitat types;
- determine the existence and location of any ecologically valuable areas; and
- identify the presence of any protected species.

1.2 This information will serve to assess the ecological impact of the proposals and identify any ecological constraints and/or mitigation measures required and also identify any enhancement measures that may be available.

1.3 The proposals are to construct replacement flats with associated hard and soft landscaping, requiring the demolition of the two existing properties (16 and 18 Oatlands Drive) and clearance of some garden vegetation.

Site Description

1.4 The site is located off Oatlands Drive in Weybridge, Surrey, centred at National Grid Reference: TQ 094662 and covers approximately 0.35 of a hectare. The site comprised the existing residential properties and associated garden areas. The site is bordered by Oatlands Drive to the south-east, residential properties and associated gardens to the south-west, a construction site to the north-east, and the Engine River with deciduous woodland beyond to the north-west.

2.0 METHODOLOGY

General

2.1 The study comprised two key phases: a desk-top study; and walk-over field surveys. The study was undertaken with reference to the Institute of Environmental Assessment's '*Guidelines for Baseline Ecological Assessment*' (1995), Chartered Institute of Ecology and Environmental Management (CIEEM) '*Guidelines for Preliminary Ecological Appraisal*' (2017) and BS 42020: 2013 '*Biodiversity - Code of practice for planning and development*'.

Desk-top Study

2.2 Surrey Biodiversity Information Centre (SBIC) was consulted in order to obtain baseline data held for the site and the surrounding 2 km area.

2.3 In addition, as certain baseline data is now readily available on the internet, the Multi-agency website (http://magic.defra.gov.uk/) was consulted to determine whether any part of the site or nearby habitats have been statutorily or otherwise designated and 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.

Field Survey

2.4 It was necessary to supplement the information obtained from the desk-top study with a walk-over field survey, in order to:

- ascertain whether, while the site itself or nearby habitats might not be covered by any ecological designations, they could be of ecological interest and/or contain protected species; and
- establish the ecological value of the site in order for the overall disturbance to ecosystems within the area to be fully evaluated.

2.5 An initial walk-over survey of the site was carried out on Thursday 5 October 2021, with a subsequent survey undertaken on Tuesday 25 October 2022 to update the previous findings and record any changes that may have occurred in the intervening period. The dominant plant species were recorded, and habitats classified according to their vegetation types and presented in the standard UK Habitat Classification System (Butcher et al, 2020). The weather conditions at the time of the initial survey were: 30% cloud cover; wind speed 2 (Beaufort scale); temperature 15°C; and no precipitation and: 60% cloud cover; wind speed 1 (Beaufort scale); temperature 18°C; and no precipitation at the time of the most recent survey.

Habitat Evaluation

2.6 By applying recognised criteria produced by Ratcliffe (1977), the following seven-point scale was used to rank the importance of the habitat types and species they support. The value of each habitat was ranked according to its importance in a local context (a summary of the Ratcliffe criteria is attached at Appendix A):

- low value;
- low to intermediate value;
- intermediate value;
- intermediate to high value;
- high value (Local/District importance);
- very high value (County importance e.g. Site of Nature Conservation Importance (SNCI), County Wildlife Site); and
- exceptional value (National importance e.g. Site of Special Scientific Interest (SSSI)).

Fauna

2.7 Particular attention was paid to record the presence of/or suitable habitat for badgers, bats, herpetofauna (amphibians and reptiles), otters and water voles that may be present on the site or within adjacent habitats, in accordance with the following survey methodologies:

Badgers

2.8 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'.

2.9 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

2.10 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.

2.11 A visual survey of the site was completed to record any evidence of bats or features that could provide potential roosting opportunities. The survey was carried out following the guidelines provided by the Bat Conservation Trust[1] by an experienced and licensed ecologist[2]. A thorough internal and external examination of the existing buildings on the site was carried out, with any potential access points inspected for evidence of bats.

2.12 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.

2.13 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.

2.14 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.

2.15 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.

2.16 In addition to the above, as evidence of bats along with some roosting features were recorded on No. 16 Oatlands Drive during the initial visual inspection, two emergence/bat activity surveys (with one combined with a pre-dawn return to roost survey) were carried out. Two experienced surveyors carried out the surveys (details provided in Table 1), using direct observation and a range of bat detectors to record bat activity. The following bat detectors were used on the site: heterodyne/frequency division (Pettersson D230 and Echo Meter 3+); zero crossing recorders (Anabat SD2); real time expansion Echo Meters (EM3) and continuous full-spectrum ultrasonic recorder Song Meter 2 (SM2+). The calls recorded from the SM2 detector were analysed using BatSound software and the calls on the Anabat detector were analysed using Analook software.

Table 1: Surveyors

Date	Surveyors
11.08.21	Julian Thornber BSc (Hons) - 2015-13307-CLS
	Dave Endacott - 2015-10616
02.09.21	Alan Beaumont MSc BSc (Hons) – 2018-37192-CLS-CLS
	Katy Collins MSc BSc (Hons) – 2 years experience

[1] Collins, J. (ed) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). The Bat Conservation Trust, London.
[2] Lead surveyor was Alan Beaumont, BSc (Hons), MSc, MCIEEM.

03.09.21	Alan Beaumont MSc BSc (Hons) – 2018-37192-CLS-CLS
	Katy Collins MSc BSc (Hons) – 2 years experience

2.17 Bat activity is strongly influenced by weather conditions and time of night. Peak activity occurs at dusk and dawn, but activity continues throughout the night as bats can commute long distances from their roosts to particular foraging sites (depending upon species). For this reason the emergence/bat activity surveys started 30 minutes before sunset and continued for approximately 2 hours and the pre-dawn return to roost survey started 1.5 hours before sunrise and continued for 15 minutes after.

2.18 The emergence/bat activity surveys were carried out on the evenings of Wednesday 11 August 2021 and Thursday 2 September 2021, with the pre-dawn survey carried out on the morning of Friday 3 September 2021. The weather conditions were considered ideal to record bat activity at the time of the survey and are summarised in Table 2. The building was re-checked to record any fresh evidence of bats prior to each of the evening surveys[3]. A further reinspection covering all of the buildings was completed during the follow-up survey (25.10.22).

Table 2: Weather Conditions

Date (2021)	Temp (°C)	Cloud (Oktas)	Rain	Wind (Beaufort scale)
11 August	22-16	4	None – dry	1
2 September	18-16	6	None - dry	0
3 September	11	7	None - dry	0

Herpetofauna

Amphibians

2.19 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.

2.20 A Habitat Suitability Index (HSI) score for the adjacent waterbody was calculated. HSI scores, developed by Oldham *et al.* (2000), are used to assess the potential for a waterbody to contain great crested newts and Natural England provides a working template on document WML-A14-2. A HSI score defines a pond's suitability GCNs on a categorical scale where:

- <0.5 = poor;
- 0.5 – 0.59 = below average;
- 0.6 – 0.69 = average;
- 0.7 – 0.79 = good; and
- >0.8 = excellent.

Reptiles

2.21 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

[3] Completed by an experienced and licensed ecologist with care taken to minimise disturbance to any roosting bats that can affect emergence activity.

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.

2.22 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

2.23 Otters (*Lutra lutra*) 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.

2.24 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 bank of the adjacent waterbody 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.

Water Voles

2.25 Water voles (*Arvicola amphibious*) is fully protected under Section 9 of the *Wildlife and Countryside Act 1981 (as amended)*. Under this legislation it is an offence to intentionally kill, injure or take (capture) a water vole; intentionally or recklessly damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection, or to disturb an animal while it is occupying a structure or place which it uses for that purpose.

2.26 The survey for water voles was undertaken with reference to the Water Vole Conservation Handbook (Strachan, Moorhouse and Gelling 2011) and an assessment of the site and adjacent waterbody was carried to determine suitability for water voles. A detailed survey of the bank was carried out searching for signs of water vole which include:

- latrines and individual droppings;
- feeding stations and other signs of feeding;
- burrows and nests;
- footprints and runs through vegetation; and
- water voles themselves.

Other Species

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

3.0 RESULTS

Desk-top Study

3.1 A summary of the baseline data obtained from SBIC has been provided and detailed in Table 3; please note, due to copyright, a copy of the report cannot be reproduced but can be requested by the Local Planning Authority[4].

3.2 There are no statutory ecological designated sites located on or adjacent to the site, or within the 2 km study area. The nearest statutory designated site is Knight & Bessborough Reservoirs Site of Special Scientific Interest (SSSI), which forms part of the South West London Waterbodies Special Protected Area (SPA) and Ramsar site, located approximately 2.3 km to the north east of the site. There are a number of non-statutory designated sites within the 2 km study area with the nearest being the River Thames – Spelthorne Site of Nature Conservation Importance (SNCI), located 0.15 km to the north of the site. Full details of the designated sites located within the 2 km search area are provided in Table 3.

3.3 There were no records of protected species located on or adjacent to the site. There are a number of records of protected species within the 2 km study area, the majority of which were supplied with specific 6-figure grid references allowing a high-resolution indication of their locations. Further details of protected species recorded within 2 km of the site are provided in Table 3.

3.4 According to the Multi-agency Website the nearest Habitat of Principal Importance is an area of Deciduous Woodland, also noted as National Forest Inventory, located adjacent to the west of the site.

3.5 Google Earth Imagery shows that 16 Oatlands Drive has remained largely unchanged since at least 2003, being dominated by the existing property with associated hardstanding and well-maintained garden. No. 18 Oatlands Drive underwent major refurbishment works sometime between 2015 and 2017.

Table 3: Summary of Baseline Data (SBIC)

Non-Statutory Designated Sites		
Description	**Protection/designation**	**Distance/Direction**
River Thames - Spelthorne	SNCI	0.15 km to the N
River Thames - Elmbridge	SNCI	0.5 km to the SW
Desborough Island	SNCI	1.1 km to the W
River Ash: Gaston Bridge to Watersplash Farm	SNCI	1.38 km to the N
River Ash: Splash Meadow to Gaston Bridge	SNCI	1.5 km to the NW
Ferris Meadows	SNCI	1.55 km to the W
Queen Elizabeth II Reservoir	SNCI	1.8 km to the NE
Other Sites		
Description	**Protection/designation**	**Distance/Direction**
Ferry Lane	CRSV	1.95 km to the W
Protected/notable Species		
Description	**Protection/designation**	**Distance/direction from site**
Stag Beetle (*Lucanus cervus*)	European Protected Species, Protected Species (against sale) & Priority Species	0.32 km to the N
Kingfisher (*Alcedo atthis*)	Protected Species	0.32 km to the WSW
Bluebell (*Hyacinthoides non-scripta*)	Protected Species	0.4 km to the E
Dusky Thorn (*Ennomos fuscantaria*)	Priority Species	0.42 km to the SW

[4] SBIC data is subject to copyright and therefore cannot be passed on to any third parties.

Mottled Rustic (*Caradrina morpheus*)	Priority Species	0.42 km to the SW
September Thorn (*Ennomos erosaria*)	Priority Species	0.42 km to the SW
West European Hedgehog (*Erinaceus europaeus*)	Priority Species	0.49 km to the SSE
Noctule (*Nyctalus noctula*)	European Protected Species, Protected Species & Priority Species	0.51 km to the WSW
White-letter Hairstreak (*Satyrium w-album*)	Protected Species & Priority Species	0.57 km to the NW
Cinnabar (*Tyria jacobaeae*)	Priority Species	0.78 km to the SW
Soprano Pipistrelle (*Pipistrellus pygmaeus*)	European Protected Species, Protected Species & Priority Species	1.07 km to the NE
Common Frog (*Rana temporaria*)	Protected Species (against sale)	1.12 km to the N
Common Toad (*Bufo bufo*)	Protected Species (against sale) & Priority Species	1.2 km to the SSW
Daubenton's (*Myotis daubentonii*)	European Protected Species & Protected Species	1.2 km to the SSW
Dunnock (*Prunella modularis*)	Priority Species	1.2 km to the SSW
Fieldfare (*Turdus pilaris*)	Protected Species	1.2 km to the SSW
House Sparrow (*Passer domesticus*)	Priority Species	1.2 km to the SSW
Common pipistrelle (*Pipistrellus pipistrellus*)	European Protected Species & Protected Species	1.2 km to the SSW
Redwing (*Turdus iliacus*)	Protected Species	1.2 km to the SSW
Reed Bunting (*Emberiza schoeniclus*)	Priority Species	1.2 km to the SSW
Serotine (*Eptesicus serotinus*)	European Protected Species & Protected Species	1.2 km to the SSW
Song Thrush (*Turdus philomelos*)	Priority Species	1.2 km to the SSW
Starling (*Sturnus vulgaris*)	Priority Species	1.2 km to the SSW
Brown Long-eared (*Plecotus auritus*)	European Protected Species, Protected Species & Priority Species	1.28 km to the WNW
Pipistrelle species (*Pipistrellus sp.)*	European Protected Species, Protected Species	1.28 km to the WNW
Shaded Broad-bar (*Scotopteryx chenopodiata*)	Priority Species	1.3 km to the W
Black Oil-beetle (*Meloe proscarabaeus*)	Priority Species	1.32 km to the NNW
Small Heath (*Coenonympha pamphilus*)	Priority Species	1.32 km to the W
Bats species (*Vespertilionidae sp.*)	Protected Species	1.43 km to the S
Brown Hairstreak (*Thecla betulae*)	Protected Species & Priority Species	1.79 km to the SSW
Myotis species (*Myotis sp.*)	European Protected Species, Protected Species	1.92 km to the SE
Nathusius's Pipistrelle (*Pipistrellus nathusii*)	European Protected Species & Protected Species	1.92 km to the SE
Wild Asparagus (*Asparagus prostratus*)	Priority Species	2 km to the NNE
Green Sandpiper (*Tringa ochro*pus)	Protected Species	2.09 km to the W
Greenshank (*Tringa nebularia*)	Protected Species	2.09 km to the W
Greylag Goose (*Anser anser*)	Protected Species	2.09 km to the W
Lapwing (*Vanellus vanellus*)	Priority Species	2.09 km to the W
Little Ringed Plover (*Charadrius dubius)*	Protected Species	2.09 km to the W
Skylark (*Alauda arvensis*)	Priority Species	2.09 km to the W
Slavonian Grebe (*Podiceps auritus*)	Protected Species	2.09 km to the W

White-fronted Goose (*Anser albifrons*)	Priority Species	2.09 km to the W
Yellow Wagtail (*Motacilla flava*)	Priority Species	2.09 km to the W

NB: All distances are calculated from the centre of the site, National Grid Reference: TQ 094662
SNCI = Site of Nature Conservation Importance. CRSV = Conservation Road Side Verge.
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

Field Survey

Introduction

3.6 The results of the survey are presented as a series of habitat descriptions for each of the areas on the site. The existing habitat plan is shown on Figure 2 and the habitat descriptions should be read in conjunction with this Plan. An indicative plant species list is attached at Appendix B (nomenclature follows Stace, 2010) and a series of site photographs is attached at Appendix C.

Habitat Types and Evaluation

Developed land; sealed-surface

3.7 There were two properties on site with associated driveways at the front and patios/decking at the rear along with some garden outbuildings at the rear. A description of each building is provided in Table 4.

Table 4: Building Descriptions

Property	Observations
No. 16	Chalet-style bungalow, masonry constructed and rendered and painted white with a pitched and hipped roof of engineered tiles. The roof tiles were generally well-aligned and tightly fitted. Tile hanging was present on the rear dormer window, which was generally well-aligned and tightly fitted, with some restricted gaps recorded. The plastic soffits/fascias were in good condition and well-sealed. There was an attached, single-storey garage with a flat roof and no separate roof void. Internally the majority of the roof space had been converted into accommodation, with a restricted roof space and some eave spaces present, which were lined with a bitumen based felt and insulated with mineral wool.
Summer House	There was a masonry constructed summerhouse within the rear garden on No.16, with tightly fitted, timber cladding on the front gable and a pitched engineered tiled roof, which was well sealed. Internally there was a restricted roof void.
Timber shed	Single skinned timber shed with a pitched felt covered roof. No separate roof void.
No. 18	Two-storey masonry constructed property, with the masonry rendered and painted white with some decorative timber cladding. The rendering and cladding was well sealed. The roof was pitched and hipped with slate tiles, which were in good condition and tightly fitted. There were plastic soffits/fascias which were in good condition and tightly fitted. Internally, the roof space was fully accessed and lined with a modern breathable membrane, with the floor boarded and insulated with mineral wool. There was an attached, single-storey garage with a flat roof and no separate roof void.

3.8 The buildings and hardstanding were assessed to be of limited ecological value, with No. 16 providing some potential roosting opportunities for bats.

Habitat value: **Low**

Vegetated garden

3.9 Vegetated garden comprised well-maintained amenity lawns, ornamental planting and hedging. Species recorded within the lawns were typical of amenity grassland and included perennial rye-grass (*Lolium perenne*), Yorkshire-fog (*Holcus lanatus*), ribwort plantain (*Plantago lanceolata*), cat's-ear (*Hypochaeris radicata*), clover (*Trifolium sp.*) and yarrow (*Achillea millefolium*). Ornamental planting at 16 Oatlands Drive included cherry laurel *(Prunus*

laurocerasus), Japanese anemone (*Anemone hupehensis)*, dogwood (*Cornus sp.*), butterfly-bush (*Buddleja davidii*), magnolia (*Magnolia sp*.), yew (*Taxus baccata*), holly (*Ilex aquifolium*), camellia (*Camellia sp.*) and privet (*Ligustrum ovalifolium*) hedging. Ornamental planting at 18 Oatlands Drive included bamboo (*Pleioblastus sp.*), hydrangea (*Hydrangea sp.*), hebe (*Veronica sp.*), fatsia (*Fatsia japonica*) and privet hedging.

3.10 Vegetated garden is generally of low ecological value given its limited size and management regime, however ornamental planting does provide some shelter and food resources for nectar and pollen dependent insects.

Habitat value: **Low**

Individual/Urban Trees

3.11 Individual trees recorded on site included alder (*Alnus glutinosa*), silver birch (*Betula pendula*), cherry plum (*Prunus cerasifera*), ash (*Fraxinus excelsior*) and Lawson's cypress (*Chamaecyparis lawsoniana*).

3.12 The majority of the trees were young/immature, with a few semi-mature, and consequently of limited ecological value, although they will provide shelter and some bird nesting opportunities.

Habitat value: **Low to intermediate**

Adjacent Habitat

3.13 The site is bordered by Oatlands Drive to the south-east, residential properties and associated gardens to the south-west, a construction site to the north-east, and the Engine River with deciduous woodland beyond to the north-west. Marginal vegetation recorded along the adjacent Engine River included Indian balsam (*Impatiens glandulifera*)[5], soft rush (*Juncus effusus*) and bramble (*Rubus fruticosus* agg.).

Fauna

Badgers

3.14 No evidence of badgers or their setts was recorded on or adjacent to the site during any of the site visits. A few mammal runs were recorded, confirmed to be used by fox (*Vulpes vulpes*)[6].

Bats

3.15 The results of the visual inspections are detailed on Table 5.

Table 5: Visual Inspection Results

Property	Observations
No. 16	No evidence of bats was recorded during the internal inspection of the building during any of the visits in 2021 and the follow-up survey in 2022. The exposed masonry, roof tiles and soffits/fascias were generally well-sealed, with no obvious access points for bats recorded. Internally the restricted attic/eave spaces were accessed and found to be dusty and cobwebbed with only a few individual rodent (mouse) droppings and some old wasp nests recorded. A few individual pipistrelle (*Pipistrellus sp.*) type droppings were recorded on the cheek tile hanging on the dormer window at the rear of the building, indicating occasional use for individual bats. The garage did not provide any roosting opportunities.
Summer House	No evidence of bats was recorded during the internal and external inspection of the building in 2021 or 2022. The roof tiles and timber cladding was generally well-sealed with any restricted gaps fully inspected and found to be covered in cobs and/or general debris. Internally the restricted roof void was fully accessed found to be well sealed and heavily cobwebbed.
Timber shed	No evidence of bats was recorded with the shed assessed to provide **negligible** roosting opportunities for bats.

[5] Also known as Himalayan balsam, an invasive, non-native species listed under Schedule 9 of the *Wildlife and Countryside Act 1981 (as amended)*, which makes it illegal to plant or otherwise cause them to grow in the wild.
[6] Fox hair found on boundary fencing.

No. 18	No evidence of bats was recorded during the internal and external inspection of the building. The property was well-maintained and had only recently been renovated/modernised and consequently the new rendering, soffits/fascias and roof covering was well-sealed, with no obvious access points for bats recorded. Internally, the roof space was not complex allowing a thorough internal inspection to be completed and well-sealed. There was an attached, single-storey garage with a flat roof and no separate roof void which did not provide any roosting opportunities.

3.16 As droppings were recorded on the cheek tile hanging at the rear of 16 Oatlands Drive, activity surveys were carried out in 2021.

3.17 During the first emergence/bat activity survey (11.08.21), a single common pipistrelle (*Pipistrellus pipistrellus*) bat was recorded emerging from the tile hanging on the rear dormer window at 20:39 hrs (TN 1 on Figure 3). Foraging activity and passes by common pipistrelle, soprano pipistrelle (*Pipistrellus pygmaeus*), Nathusius' pipistrelle (*Pipistrellus nathusii*), long-eared (*Plecotus sp.*) and myotis (*Myotis sp.*) bats were recorded during the survey.

3.18 During the second emergence/bat activity survey (02.09.21), no bats were recorded emerging from the property. Foraging activity and passes by common, soprano and Nathusius' pipistrelle, myotis and noctule bats were recorded during the survey.

3.19 During the pre-dawn return to roost survey (03.09.21), no bats were recorded returning to roost at the property. Foraging activity and passes were dominated by common, soprano and Nathusius' pipistrelles, with occasional passes by myotis.

3.20 The site, dominated by the properties and gardens, provides restricted foraging opportunities for bats. The majority of trees on site were assessed to provide **negligible** opportunities for roosting bats due to their size/species and lacking any obvious PRFs. There was a single semi-mature ash tree which provided **low** roosting potential for bats due to size and the presence of a few features with only very limited roosting potential.

Herpetofauna

3.21 There were two ponds within the rear garden of No.16. There was an ornamental pond within the patio area (Pond 1) which was assessed to provide **poor** suitability to support great crested newts, with a HSI score of 0.20, due to the presence of fish and poor surrounding terrestrial habitat (Table 6). The second pond fed off the Engine River (Pond 2), which was assessed to provide **poor** suitability to support great crested newts, with a HSI score of 0.34, due to the presence of waterfowl and poor surrounding terrestrial habitat (Table 6). In addition, despite a careful search of the site, no species of herpetofauna were seen or found sheltering under any refugia lifted during any of the site visits.

3.22 There were no records of great crested newt returned by SBIC for the site or surrounding 2 km search area. The site itself was dominated by residential plots and consequently did not provide suitable terrestrial habitat for any species of herpetofauna.

Table 6: HSI Score for the on-site ponds

Factor	Pond 1	Pond 2
SI1 – Location	1.00	1.00
SI2 – Pond area	0.01	0.03
SI3 – Pond drying	1.00	1.00
SI4 – Water quality	0.33	0.67
SI5 – Shade	1.00	1.00
SI6 – Fowl	1.00	0.01
SI7 – Fish	0.01	0.67
SI8 – Ponds	0.79	0.79
SI9 – Terrestrial habitat	0.01	0.33
SI10 – Macrophytes	0.51	0.51
HSI score	**0.20**	**0.34**

Otter

3.23 No evidence of otter was recorded during the inspection of the bank of the adjacent waterbody during any of the site visits, with no otter records returned within the 2 km study area.

Water Vole

3.24 No evidence of water vole was recorded during the inspection of the adjacent waterbody during any of the site visits, with no water vole records returned within the 2 km study area.

Other Wildlife

3.25 Apart from fox already mentioned and a few common species of birds, either recorded on the site or flying overhead, no other species of any note were recorded.

4.0 DISCUSSION AND RECOMMENDATIONS

4.1 The proposals are to construct replacement flats with associated hard and soft landscaping, requiring the demolition of the two existing properties (16 and 18 Oatlands Drive) and clearance of some garden vegetation.

4.2 There are no habitats of international, national, county or local importance that would be directly affected by the proposals. The site, dominated by the existing properties and associated garden areas, is of limited ecological value, with the species recorded described as common or abundant and found in similar places across much of Britain, with No.16 confirmed as an occasionally used day roost for individual common pipistrelle bats.

4.3 A number of visual inspections (originally in 2021 and updated in October 2022) have been completed on the site, which included a thorough examination of the existing buildings with all potential access points and/or roosting opportunities fully inspected for evidence of bats. All attic spaces were fully accessed and not complex allowing a thorough inspection and, therefore, there are considered to be no constraints to the survey findings. As No. 16 was the only building to have potential roosting features and/or evidence of bats, this building was subject to further bat activity surveys in order to characterise the roost and provide appropriate and proportion mitigation measures. As No. 16 is a confirmed day roost and this will be demolished for the redevelopment proposals, a European Protected Species Licence[7] will be required to permit the works to proceed. The licence application would be supported by a range of controls and a series of mitigation measures. Typical measures have been provided below.

4.4 In order to ensure there are alternative roosting opportunities for bats during the works, 4 bat boxes will be installed on site (e.g. x2 Schwegler type 2FN, x2 Kent Bat Boxes). The boxes will be positioned in accordance with best practice and installed on suitable mature trees as soon as possible and prior to any works (indicative locations on Figure 4). Four bat tubes (e.g. Ibstock Enclosed Bat Box B) will also be installed in suitable locations on the new build to provide additional roosting opportunities (indicative locations on Figure 4).

4.5 Prior to the works, 16 Oatlands Drive will be carefully re-checked by a licensed bat worker/accredited agent for any roosting bats. The removal of any tiles (hanging, roof and ridge) will be carried out under the supervision of a licensed bat worker/accredited agent and carried out under a soft strip protocol as detailed below. Although there are considered to be no seasonal constraints, in accordance with good practice, the works should not be completed if the day-time temperature drops below 6°C to avoid encountering any bats in a state of torpor.

- All site operatives will be given a toolbox talk on the possibility of encountering bats and the legal protection they and their roosts are afforded (copy of a toolbox talk has been attached at Appendix D);
- initial works will be carried out with great care. All tiles (hanging, roof and ridge) will be lifted and removed by hand, lifting them clear with two hands rather than lifting the front and rolling the tile backwards which may crush any bats beneath;

[7] A licence will only usually be issued after full planning permission has been granted and any relevant conditions discharged.

- tiles will also be checked underneath before being stacked or discarded, as bats sometimes cling to the undersides of tiles; and
- a similar soft strip of other features that bats can utilise for roosting (such as lead flashing and soffits/fascias) will be completed.

4.6 Should any bats be encountered during this initial check and soft strip, they will be caught by hand by the licensed bat worker/accredited agent and placed in a bat bag. The bat will then be placed in one of the bat boxes already installed on site. The box will have the hole loosely blocked with a piece of cloth to prevent pre-mature flight, which will be removed at dusk to allow any bats to move off after dark. Should any injured or severely underweight bats be located, remedial measures will be taken, including seeking appropriate care of the bat and providing additional food in the form of mealworms.

4.7 Common pipistrelles are considered to be common and widespread throughout Great Britain. Population estimates in Great Britain are around 3,040,000[8]. Results from field surveys show a significant upward trend in the numbers of common pipistrelle since 1999, the baseline year of the National Bat Monitoring Programme; however, results from roost counts show a significant downward trend. The field survey results are considered to be a better reflection of common pipistrelle population changes as common pipistrelles are known to move between roost sites both within and between years, which could affect the trend from the roost count. Therefore, the population of common pipistrelles in Great Britain is considered to have increased since 1999[9].

4.8 Roosts of individual bats of the more common species are considered of a low conservation status (in accordance with Figure 4 of the Bat Mitigation Guidelines[10]). The level of mitigation as detailed above is in line with that provided within Section 7.2 of the Bat Mitigation Guidelines, which states for roosts used by individual bats of common species that are to be destroyed:

'*Individual bats of common species - Flexibility over provision of bat-boxes, access to new buildings etc. No conditions about timing or monitoring*.'

4.9 Although no evidence of bats was recorded during the visual check of any of the trees, with most assessed to provide negligible roosting opportunities, in the event that the semi-mature ash requires felling, which has been assessed to provide low roosting potential, then this should be carried out by competent Tree Surgeons and in accordance with the precautionary approach, with the following best practice methods employed:

- all operatives will be given a toolbox talk so that they are fully aware of current legislation protecting bats and their roosts;
- the tree will be felled in manageable sections, with each section carefully lowered to the ground;
- in the unlikely event of any bats being encountered, then works should stop immediately and Natural England or AAe contacted so that appropriate advice can be provided; and
- cut material will be used to create log piles within the surrounding area outside of the development footprint to provide habitat piles for a range of species.

4.10 It is considered that with the series of mitigation measures to be implemented on the site, there should be no deleterious effects on the conservation status of the bats that are using the site and therefore favourable conservation status will be maintained.

4.11 In addition to the more specific measures detailed above, a series of generic measures, as detailed below, could be implemented on the site 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,

[8] Mathews F., Kubasiewicz L.M., Gurnell J., Harrower C.A., McDonald R.A. & Shore R.F. (2018). *A Review of the Population and Conservation Status of British Mammals. A report by the Mammal Society under contract to Natural England, Natural Resources Wales and Scottish Natural Heritage*. Natural England, Peterborough.
[9] Bat Conservation Trust (2019). The National Bat Monitoring Programme. Annual Report 2018. Bat Conservation Trust, London.
[10] Mitchell-Jones, A.J. (2004) *Bat Mitigation Guidelines.* English Nature. ISBN 1 85716 781 3.

in accordance with Government guidance as set out in National Planning Policy Framework National Planning Policy Framework (NPPF) 2021[11].

4.12 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 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.

4.13 As Indian balsam has been recorded on the site alongside the adjacent waterbody, a suitable strategy should be agreed and implemented to control this invasive species (an extract from the Environment Agency's 'Managing Invasive Non-native Plants' document has been attached at Appendix E). This will not only comply with current legislation but also represent an enhancement.

4.14 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 of these features will maintain existing commuting/foraging routes currently utilised by local wildlife.

4.15 Site works will be carefully controlled and carried out following best practice and guidance provided by Environment Agency's Pollution Prevention Guidelines to ensure that there is no pollution of the adjacent waterbody, which is a sensitive receptor.

4.16 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 currently experiences some light spillage from on-site sources and neighbouring properties 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 bird/bat boxes installed or onto the adjacent waterbody and woodland beyond to the rear of the site, which should remain dark.

4.17 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. Biodiverse roofs will be included, which will provide additional habitat for a range of species. In addition, an ecological buffer zone alongside the adjacent waterbody could be sensitively designed with existing vegetation supplemented with native species of local provenance. An Advisory Note for planting near watercourses is attached at Appendix F. Once established, this buffer zone will provide an important resource for a variety of wildlife, as well as protecting the waterbody in the long-term.

4.18 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.

4.19 In addition, further enhancement measures will include the provision of new 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:

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

- Nest boxes
- Bird feeders
- Bug hotels
- Hedgehog houses
- Bat boxes
- Log piles
- Communal gardens
- Pollinator nest sites
- Planting wildflowers

4.20 The range of new biodiversity features and habitats to be incorporated, such as biodiverse roofs, ecological buffer zones, new planting and a range of wildlife boxes as mentioned above, will attract wildlife and promote biodiversity, in compliance with DM21 (b) of the Elmbridge Local Plan.

4.21 In addition, a Biodiversity Net Gain (BNG) assessment has been calculated for the site using Defra's Biodiversity Metric 3.1. Due to the installation of biodiverse green roofs and planting of new trees, the scheme has resulted in an overall net gain of 0.07 habitat units, the equivalent increase of 5.64 %, in compliance with CS15 (8) of the Elmbridge Core Strategy. The BNG assessment has been attached at Appendix G.

5.0 CONCLUSIONS

5.1 The proposals are to construct replacement flats with associated hard and soft landscaping, requiring the demolition of the two existing properties (16 and 18 Oatlands Drive) and clearance of some garden vegetation.

5.2 An ecological survey has been carried out, supplemented by obtaining available baseline data from Surrey Biodiversity Information Centre. The findings from the survey and review of baseline data have provided information to assess the impact of the proposals on species and/or features of ecological/biodiversity value.

5.3 There are no habitats of international, national, county or local importance that would be directly affected by the proposals. The site, dominated by the existing properties and associated garden areas, is of limited ecological value, with the species recorded described as common or abundant and found in similar places across much of Britain, with No.16 confirmed as an occasionally used day roost for individual common pipistrelle bats.

5.4 Overall the findings of this ecological appraisal would indicate that there are no over-riding ecological constraints to the redevelopment proposals to preclude planning permission being granted, subject to suitably worded conditions. Proportionate mitigation is available and deliverable to ensure that there would be no adverse impact on bats and local wildlife that are using the site. In addition, there is an opportunity to create new habitats for the benefit of wildlife and if designed appropriately and managed effectively then the scheme should result in an increase in nature conservation value of the site and achieve a biodiversity net gain, in accordance with DM21 (b) of the Elmbridge Local Plan, CS15 (8) of Elmbridge Core Strategy and Government guidance as set out in National Planning Policy Framework.

213316/ARB AA Environmental Limited

December 2022

REFERENCES

Agreement on the Conservation of Bats in Europe. HMSO, London

BS 3998: 2010 *Tree Work - Recommendations*.

BS 42020: 2013 *Biodiversity – Code of practice for planning and development.*

Butcher, B., Carey, P., Edmonds, R., Norton, L. and Treweek, J. (2020) *UK Habitat Classification – Habitat Definitions V1.1* at http://ukhab.org

Chartered Institute of Ecology and Environmental Management (CIEEM) (2013) *Guidelines for Preliminary Ecological Appraisal*. http://www.cieem.net/data/files/Resource_Library/Technical_Guidance_Series/GPEA/GPEA_April_2013.pdf

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

Institute of Environmental Assessment (1995). *Guidelines for Baseline Ecological Assessment*. E & FN Spon, London.

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

Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus*). Herpetological Journal 10(4), 143-155.

Protection of Badgers Act 1992. HMSO, London.

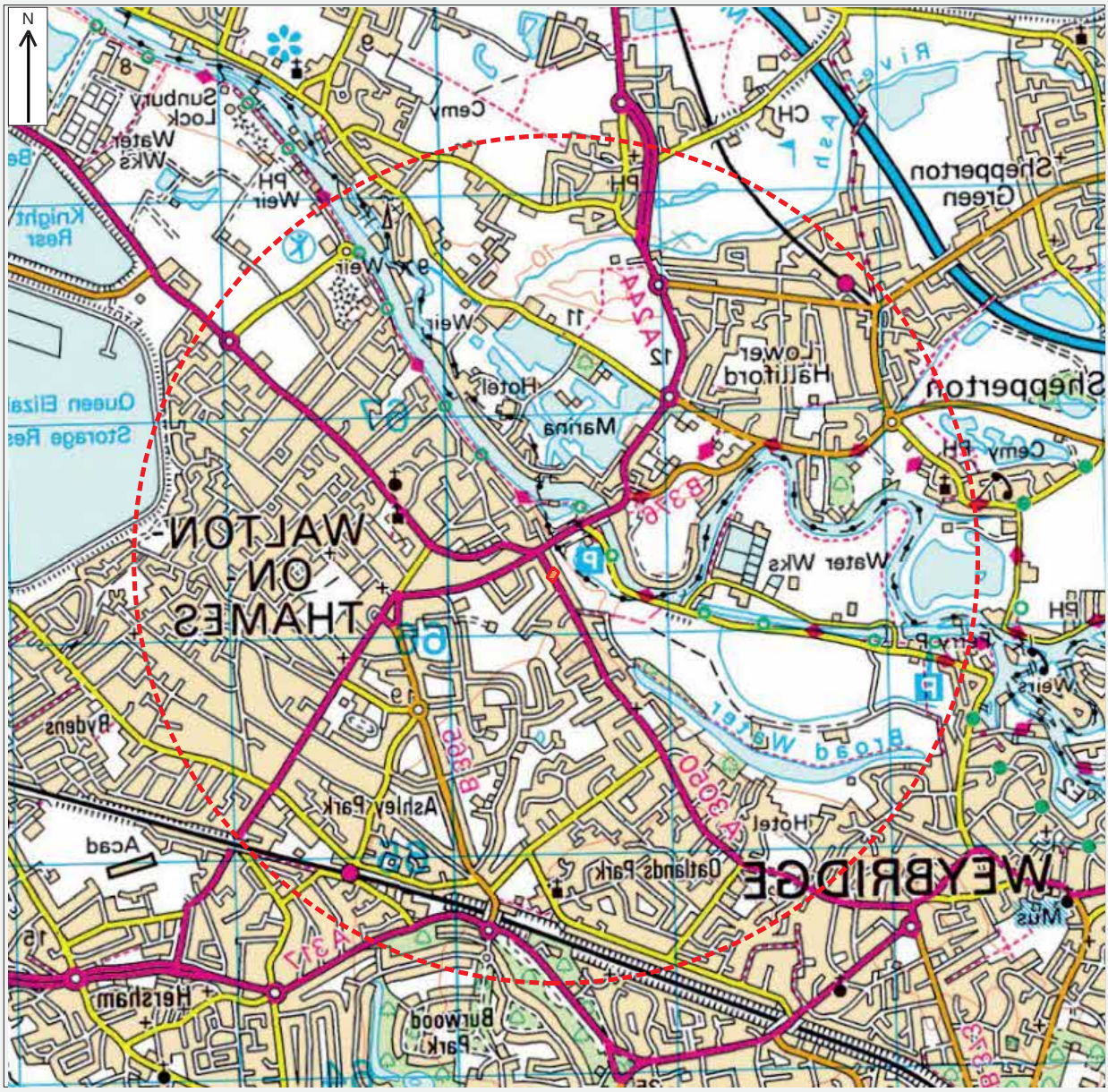
Ratcliffe, D.A. (ed). (1977) *A Nature Conservation Review (vols I & II)*. Cambridge University Press.

Stace, C. (2010) *New Flora of the British Isles (3rd edition)*. Cambridge University Press.

The Conservation of Habitats and Species Regulations 2010 (as amended). TSO, London.

The Wildlife and Countryside Act 1981 (as amended). HMSO, London.

Figures



Scale (km)

0 1 2

KEY

Site Boundary:

2 km StudyArea:

OS Ordnance Survey Explorer™ 195 & 183

UK Location:

Rev.	Details	Drawn / Chkd.	Date

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Project
213316
16-18 Oatlands Drive
Weybridge

Title
Site Location Plan

Scale	Date	Drawn	Chkd.	Drg. No.	Rev.
As shown	14.12.22	KC	ARB	Figure 1	

UK HABS KEY

- Site Boundary*
- Vegetated Garden
- Developed Land/Sealed Surface

Rev.	Details	Drawn / Chkd.	Date

Project

213316
16-18 Oatlands Drive
Weybridge

Title

Existing Habitats Plan

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Scale	Date	Drg. No.	Rev.
As shown	14.12.22	Figure 2	
	Drawn: KC / Chkd.: ARB		

KEY

- Site Boundary (Indicative)
- Location of Surveyor
- Location of Static Detector
- Target Note
- Bat Emergence

Notes

TN 1 - x1 common pipistrelle (*Pipistrellus pipistrellus*) emerged from tile hanging on the rear dormer window at 20:39 hrs (11.08.21).

A few individual *Pipistrellus sp.* droppings were recorded on the dormer window at the rear of the property during the initial visual inspection (05.08.21).

No evidence of bats was recorded within the roof spaces of any of the buildings during the visual inspections.

Rev.	Details	Drawn / Chkd.	Date

Project

213316
16-18 Oatlands Drive
Weybridge

Title

Bat Survey Results Plan

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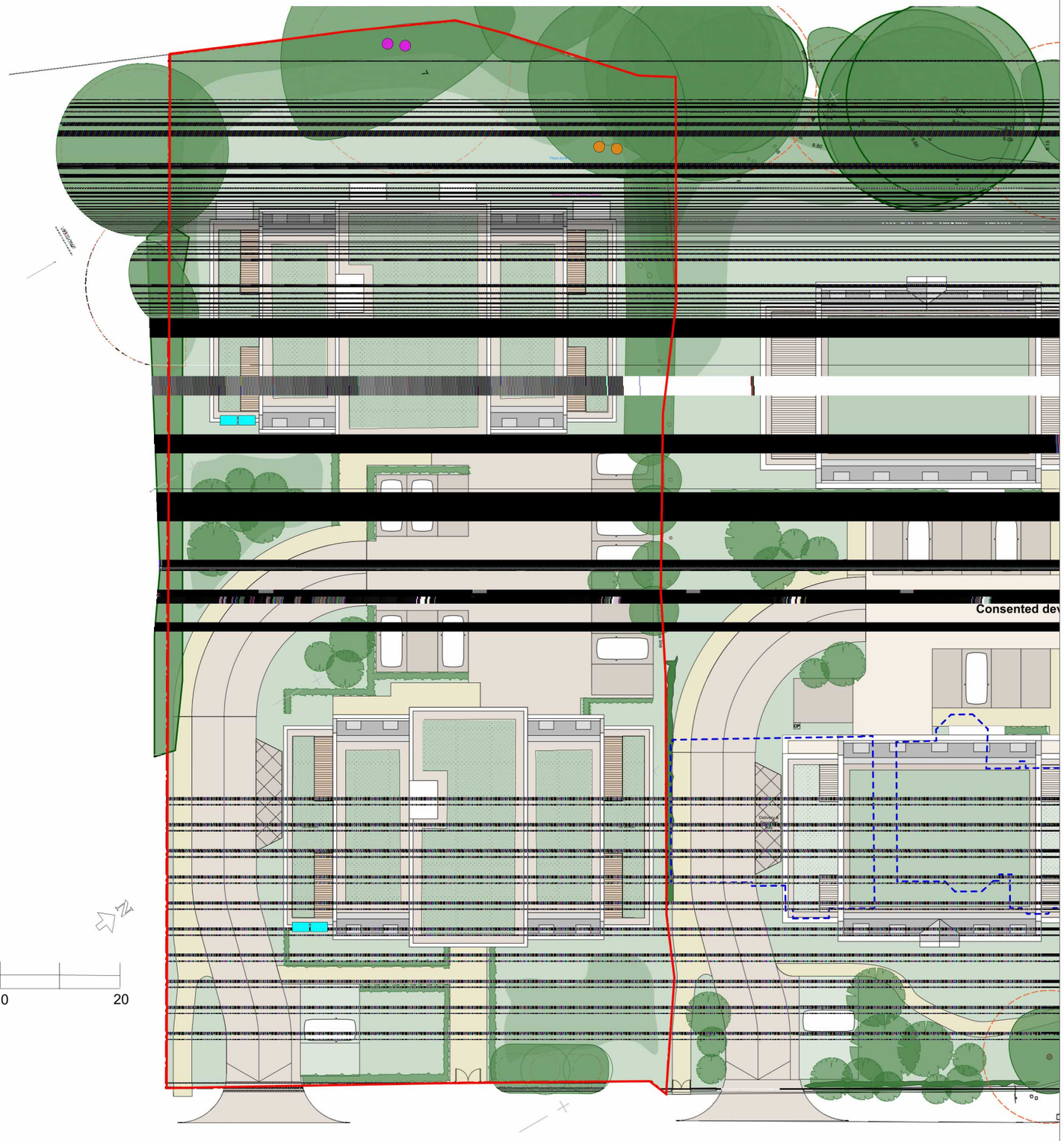
Scale	Date	Drg. No.	Rev.
As shown	14.12.22	Figure 3	
	Drawn: KC / Chkd.: ARB		



Ibstock Enclosed Bat Box 'B'

Kent Bat Box

Schwegler 2FN

KEY

- Site Boundary (Indicative)
- Individual Tree (Topographed)
- Ibstock Enclosed Bat Box 'B' *
- Kent Bat Box *
- Schwegler 2FN *

* Indicative location

Notes

Bat Tubes
x4 Ibstock Enclosed Bat Box 'B'

Bat Boxes
x2 Kent Bat Boxes
x2 Schwegler 2FN Bat Boxes

All key stages of the demolition works will be supervised by a licensed bat worker/accredited agent and only completed once an EPSL has been granted by Natural England.

A sensitive lighting scheme will be adopted for the proposals and no lighting will be directed onto any bat tubes/boxes installed.

Rev.	Details	Drawn / Chkd.	Date

Project
213316
16-18 Oatlands Drive
Weybridge

Title
Bat Mitigation Plan

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Scale	Date	Drg. No.	Rev.
As shown	14.12.22	Figure 4	
	Drawn: KC / Chkd.: ARB		

Appendix A

Summary of Ratcliffe Criteria

Fragility – some habitats, communities and species are particularly sensitive to environmental change and as such tend to be rare.

Rarity – the threat of loss of a particular habitat or species lends value to the organism and the site it occupies. Whether a species has rarity value is largely dependent upon the context, as a species or habitat can be internationally rare, but relatively common locally or nationally. Likewise, a nationally rare species can in some circumstances be more common at internationally level.

Size (area or extent) – size does play an important part in determining the ecological interest of an area, but is also a relative concept. For example, a 30 acre woodland or a one acre meadow could have a similar degree of nature conservation importance.

Diversity – the diversity of a site can be expressed in a number of ways and both low and high diversity can have a high nature conservation value under different circumstances.

Potential value – some sites have the potential to provide greater nature conservation interest than presently exists.

Position within the Ecological/Geographical Unit – a site which is near or adjacent to other similar habitats may have a higher nature conservation value than an isolated one because the range of fauna can be greater.

Typicalness – certain habitats have become important as they are good examples of what is, or has historically been, typical of the area. Efforts have been made to safeguard representative areas to prevent what was once common becoming fragmented or rare.

Recorded history – a well-documented site with detailed biological and/or natural history records presents a valuable insight into the ecology of a site. Such information is important for current and future management.

Naturalness – this is a measure of the degree to which an area has been modified by human activity. In England unmodified habitats are extremely rare being restricted to remote, inaccessible areas such as cliffs, and some saltmarshes. The bulk is either semi-improved, improved or artificial.

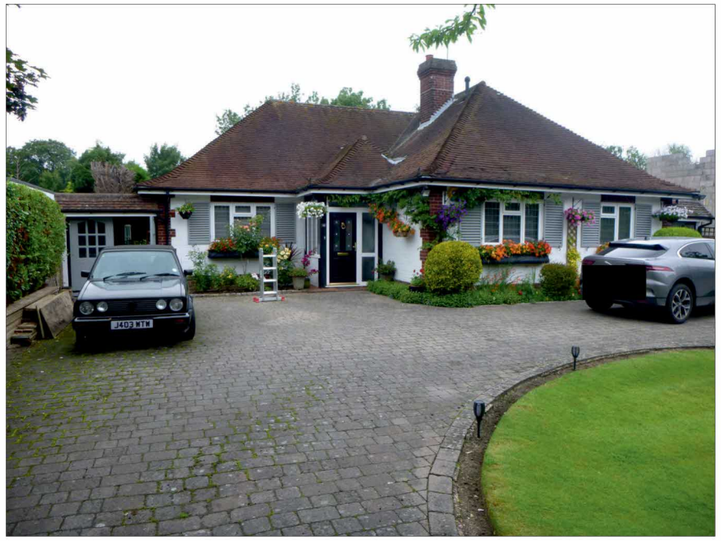
Intrinsic Appeal – this refers to value in a popular rather than ecological sense, and highlights the fact that value is also derived from society's preferences for landscape and other aesthetic features and is not just based on ecological considerations.

Appendix B

PLANT SPECIES LIST

Achillea millefolium	Yarrow
Alnus glutinosa	Alder
Anemone hupehensis	Japanese anemone
Betula pendula	Silver birch
Buddleja davidii	Butterfly-bush
Camellia sp.	Camellia
Chamaecyparis lawsoniana	Lawson's cypress
Cornus sp.	Dogwood
Fatsia japonica	Fatsia
Fraxinus excelsior	Ash
Holcus lanatus	Yorkshire fog
Hydrangea sp.	Hydrangea
Hypochaeris radicata	Cat's ear
Ilex aquifolium	Holly
Impatiens glandulifera	Indian balsam
Juncus effusus	Soft rush
Ligustrum ovalifolium	Privet
Lolium perenne	Perennial rye-grass
Magnolia sp.	Magnolia
Plantago lanceolata	Ribwort plantain
Pleioblastus sp.	Bamboo
Prunus cerasifera	Cherry plum
Prunus laurocerasus	Cherry laurel
Rubus fruticosus agg.	Bramble
Taxus baccata	Yew
Trifolium spp.	Clover
Veronica sp.	Hebe

Appendix C



Photograph 1: Showing the front of 16 Oatlands Drive.

Photograph 2: Showing the rear of No.16 and area of tile hanging on the rear dormer.

Photograph 3: Showing a heavily dusty and cobwebbed section of the eave spaces of No.16.

Photograph 4: Showing the well-maintained amenity garden of No.16.

Rev.	Details	Drawn / Chkd.	Date

PROJECT

16 - 18 Oatlands Drive
Weybridge

TITLE

Photograph Record Sheet 1
(Photographs 1-4)

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Scale	Date	Drg No.	Rev.
NTS	14.12.22	Appendix C	
	Drawn: KC / Chkd.: ARB		

Photograph 5: Showing the front of 18 Oatlands Drive.

Photograph 6: Showing the rear of No.18.

Photograph 7: Showing the roof space of No.18.

Photograph 8: Showing the amenity garden of No.18.

Rev.	Details	Drawn / Chkd.	Date

PROJECT

16 - 18 Oatlands Drive
Weybridge

TITLE

Photograph Record Sheet 2
(Photographs 5-8)

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Scale	Date	Drg No.	Rev.
NTS	14.12.22	Appendix C	

Drawn	Chkd.
KC	ARB

Appendix D

TOOLBOX TALK: BATS

Key Contacts

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Did you know?

- Bats are the worlds only flying mammal.
- There are 17 species of bat known to be breeding in the UK, 6 of which are endangered or rare and 6 are classed as vulnerable.
- Bats can be found across the country in urban and rural locations.
- They are often sighted at dusk as they leave their roost, flying around hedgerows, woodland and waterbodies, feeding on insects.
- Throughout the year bats will often change their roost, depending upon the season.
- Usually a pregnant female will only have one baby a year, this makes colonies vulnerable to population decline.
- During the winter bats hibernate and may not wake up, even if disturbed. Therefore it's important not to work on sites with bats during these months.
- Bats may not use the same roost throughout the year, however they are legally protected with or without a bat occupying them.

Identification

- You may find bats in any number of places, they tend to prefer dark, quiet spots with good shelter, such as holes and cracks in trees, roofs and walls of buildings, under bridges, old tunnels and in caves.
- Signs of bat presence include discarded moth wings, staining around crevices and small mouse like droppings which crumble easily.

Legislation

- All bats and their roosts are protected by UK and European Law. This makes it **illegal to kill, injure, capture or disturb bats** or obstruct access to, damage or destroy their roosts and protects important feeding areas from damage or disturbance.
- Under law, a roost is any structure or place used for shelter or protection.

Site Controls

- There is always a **risk** that bats, as they move between different roost sites and occupy new roosts, could be encountered during site works.
- **If any bats are encountered during works the following controls must be applied to avoid breaking the law:**

1. If bats are discovered/suspected works must stop **immediately** with any bat left in-situ and AAe immediately contacted (contact details above).
2. If any injured bats are found during the works AAe would care for them and where possible be released in the same location once recovered.
3. During works staff must wear gloves in case of accidental contact with bats.
4. Any roof tiles will be lifted straight up, rather than being rolled over, minimising the risk of harming bats which may be sheltering underneath.
5. Areas must be fully checked for any bats or their evidence prior to filling any gaps and repointing any brickwork.
6. Any lighting must be installed must avoid illuminating vegetation and or bat boxes/access points.

These controls have been put in place to protect all site operatives from breaking the law. You're not expected to be able to identify bats or their presence so remember, **if in doubt shout and contact the relevant person.**

Brown long-eared bat.

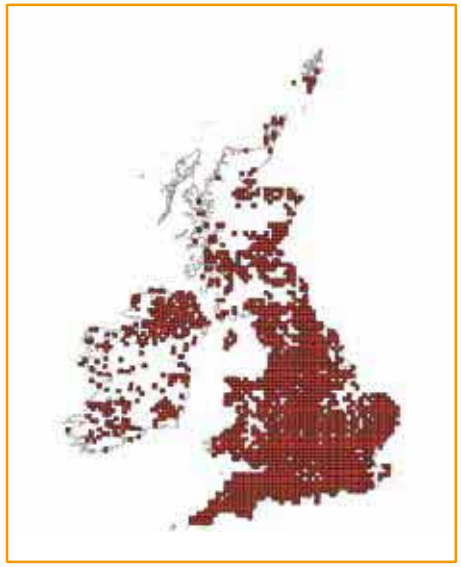
Lesser horseshoe bat in rail tunnel.

Common pipistrelle bat.

Appendix E

Fact file

Himalayan balsam



Source: NBN Gateway. Check website for current distribution

Himalayan or Indian balsam (Impatiens glandulifera) is a native of the western Himalayas. Introduced to Britain in 1839, it escaped from gardens and rapidly colonised river banks and areas of damp ground. It is the tallest annual plant in Britain, growing up to 3m high. The characteristic purplish-pink slipper-shaped flowers appear in June. When the seed pods mature, they explode when touched, scattering the seed up to 7m away. Seeds are also spread by water and they may remain viable for up to two years.

Himalayan balsam plants grow in dense stands that suppress the growth of native grasses and other flora. In autumn the plants die back, leaving the banks bare of vegetation, and therefore liable to erosion.

The stems are pinkish-red, hollow and jointed, often with some branching. Leaves and side branches originate from stem joints. The stem is sappy and brittle. The shiny dark green leaves are lance-shaped, have serrated edges, a dark red midrib and can be up to 150mm long. They grow on the stem in whorls of three. Purplish-pink flowers, held on long stalks, appear from June to October.

The white, brown or black seeds are produced from July to October and are 4-7mm in diameter. There are between 4 and 16 seeds per pod.

control

Control measures should aim to prevent flowering, and are best carried out before June for maximum effectiveness.

Chemical control near water can be carried out with herbicides containing glyphosate or 2,4-D amine. Glyphosate will also kill grasses, but 2,4-D amine will kill only broad-leaved weeds; for best effect, use when the plant is small and actively growing, particularly in springtime.

Cutting, strimming or pulling on a regular basis for about three years will be effective and may even eradicate the plant from isolated sites. Plants must be cut below the lowest node to avoid reflowering.

Appendix F

flora LOCALE

Advisory Note

Planting near watercourses

Planting near Watercourses

Water-crowfoot Peter Creed

This Advisory Note aims to encourage good practice when landowners and land managers are planning to plant near or in rivers, streams and ditches, and ponds that are not in gardens.

It applies to all sorts of plants, whether trees, shrubs, wild flowers, ferns, marginal plants or 'true' aquatics which grow in water all through the year.

Wild plants and river banks

Wild plants are very important along river banks:

- Their roots hold banks in place and prevent soil washing away, especially during flood events.
- They provide food and shelter for wildlife, including fish, insects such as damselflies and water beetles, and threatened mammals including otter and water vole.
- They often form locally distinctive plant communities of wild flowers, sedges, rushes and grasses.

The character of individual watercourses can be very different. Catchment geology, water chemistry, biology, flow, management, bank profile and land use are all important factors that will determine which wild plants and animals occur in the water and along the water margins.

To plant or not to plant

Wild plants will usually colonise water margins of their own accord if the conditions are suitable. There are many successful river restoration projects where wild plants have returned after excluding grazing livestock by fencing, or where environmentally-friendly bank profiles have been created.

Within rivers themselves, simple works such as placing wooden stakes to deflect flow on over-widened watercourses can create conditions suitable for plants to re-establish. The local Environment Agency[1] ecologist can provide advice based on experience from other projects and will advise on whether planting is either necessary or desirable and, if so, what species can be established. Case studies can also be found on the River Restoration Centre's website.

Some wild plants associated with rivers and water margins:

- **Common reed** (water edge/shallow water)
- **Branched bur-reed** (water margins)
- **Purple-loosestrife** (shallow margins that dry out in summer)
- **Water-crowfoot** an aquatic plant of fast-flowing clean rivers
- **Valerian** (muddy margins exposed in summer).

Remember –these plants will not be suitable for every location.

Purple-loosestrife

Common reed

Valerian

Branched bur-reed

1.The Scottish Environment Protection Authority (SEPA) in Scotland.

Obtaining wetland and aquatic plants

Wild plants have arrived of their own accord in this pond, which is less than 10 years old.

If it is essential to introduce plants: first consider obtaining plants from natural watercourses in the local areas; for example, where there is a surfeit of plants or where cuttings can be taken without harming existing plant or animal life. Surplus plants may be available after routine ditch or pond dredging. Permission from the landowner or farm tenant will be required.

Many riverbank and aquatic species can be propagated vegetatively or grown very easily from seed. For large projects, consider approaching a specialist grower of British wild plants (see *Flora locale*'s website) to contract-collect material and propagate this for you.

Always find out first which wild plants grow in similar habitats in the locality. With this knowledge, select suitable species for your project.

Pond and river plants from general aquarists and garden centres are often garden varieties. They are suitable for gardens but not for establishing in the wild. If there is no alternative but to purchase plants, it is recommended to use a specialist grower of British wild plants. Always ask for details of origin (the wild location of the original stock used for propagation).

Before planting always wash soil off roots away from drains, ponds and watercourses. This will reduce the risk of introducing unwanted 'hitch-hikers', whether other plants or invertebrates such as exotic flatworms or snails.

Garden plants and introduced species

Please do not introduce garden plants, especially varieties of aquatic plants or those associated with water margins. Less visible 'invaders' can also be unwittingly introduced, such as non-native insects and other invertebrates, which may be present in soil on the roots of purchased plants. These may create risks to our native wildlife in the future.

Buddleija has smothered bankside wild flora on the Kennet and Avon Canal near Newbury, Berkshire.

Some introduced species that are now common in ponds and streams:
Least duckweed,
Water fern,
Orange balsam,
New Zealand stonecrop,
Himalayan balsam, bladder snails (*Physa* spp.), the water shrimp *Crangonyx pseudogracilis*, introduced flatworms.

In many cases the introduced species occur in greater numbers or quantity than the wild plants and animals which should occur.

Permission and licences

Any works between eight and ten metres[2] of a main river (including bank reinforcement, tree planting and any other planting) require permission from the Environment Agency, (in Scotland from the Scottish Environment Protection Agency). Similarly, a consent from the Agency will be normally be required to divert any part of a watercourse, and a licence to take water from one (e.g. to make a garden feature). Some rivers and streams are also designated as Sites of Special Scientific Interest. In these areas, permission to carry out any work will need to be obtained from the relevant government agency[3]. These safeguards are in place because there could be implications for flooding, river levels or other impacts on existing habitats or wildlife.

Japanese knotweed

Advice from the Environment Agency should be sought prior to removing Japanese knotweed, which can reproduce through small severed fragments; the waste and the soil it is growing in are classed as controlled waste and it can only be taken off site for disposal to a licensed site capable of receiving it. Soil from unknown sources, and builders' waste, has helped to introduce and assist the spread of this plant, which can be almost impossible to eradicate once it has established on a river bank.

Owning a river

Anyone owning land crossed or adjacent to a river or other watercourse is usually a 'riparian owner', who is responsible for maintaining it. It is usually the case that riparian owners own half of the river on the same side as the rest of their property. To find out more see the Environment Agency leaflet 'Living on the Edge' or the website.

2.This varies between different regions.

3.Natural England, Countryside Council for Wales, Scottish Natural Heritage, Environment and Heritage Service Northern Ireland.

Further information

- **www.therrc.co.uk**
  the River Restoration Centre. For case studies and technical information on river restoration methods.
- **www.floralocale.org**
  Advisory notes: Buying native flora, Reed propagation; list of suppliers of British and Irish wild flora.
- ***River plants: the macrophytic vegetation of watercourses.*** (Second edition)
  Sylvia Haslam. Pub. University of Cambridge. £25.
- **Laminated illustrated guide to commoner water plants**
  FSC publications. £3.25 from www.field-studies-council.org (tel: 0845 3454071).
- **www.plantlife.org.uk/PlantInvaders/index.asp**
  Help Plantlife's survey of invasive plants and learn more about them, including control methods.
- **Environment Agency (EA) and Scottish Environment Protection Agency (SEPA)**
  please see your local telephone directory or www.environment-agency.gov.uk and www.sepa.org.uk
- **www.pondstrust.org.uk**:
  Factsheets on creating and planting ponds from The Ponds Conservation Trust.

September 2006

For further advisory notes, case studies, Guidelines for planting projects in the countryside, training opportunities and suppliers of native flora, go to www.floralocale.org

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Flora locale is a national charity established to promote the wise use of native flora for countryside restoration and other biodiversity projects

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Appendix G

TECHNICAL NOTE: BIODIVERSITY NET GAIN ASSESSMENT

16-18 Oatlands Drive
Weybridge

Report for:
The Ridge (Oatlands) LLP
Unit 17 Duchess Court
Weybridge
Surrey
KT13 9HN

INTRODUCTION

AA Environmental Limited (AAe) has been commissioned by The Ridge (Oatlands) LLP to complete a Biodiversity Net Gain (BNG) calculation for the above site. The purpose of the assessment is to provide a comparison between the biodiversity value of the site before and after development. The BNG assessment has been completed based on the existing and proposed habitats for the site (Figures 1 and 2).

The proposals are to construct replacement flats with associated hard and soft landscaping, requiring the demolition of the two existing properties (16 and 18 Oatlands Drive) and clearance of some garden vegetation.

METHODOLOGY

Biodiversity Net Gain (Overview)

The Department of Housing, Communities and Local Government released an updated National Planning Policy Framework (NPPF) in July 2021, which encourages new developments to secure measurable 'net gains' for biodiversity. The Environment Bill gained Royal Assent in November 2021, which mandates Biodiversity Net Gain (BNG) as a condition of planning permission, meaning that all future developments in England will have to provide a 10% increase in biodiversity on site, once development is complete. As there is a transitional period until 2023 and currently, the adopted local plan does not stipulate a net gain, any 'gain' is considered acceptable.

In order to calculate BNG for a site, existing and proposed habitats are entered into DEFRA's Biodiversity Metric 3.1 and are automatically 'scored' on their relative biodiversity value and are then classified according to their condition and location, to calculate site specific 'biodiversity units'. The pre-development biodiversity unit is then compared to the proposed, post-development biodiversity unit, allowing the difference in biodiversity to be measured.

The BNG has been calculated using the existing habitat types on site and the most up-to date proposed drawings of the site (AAe's Existing Habitat Plan and Proposed Site 3rd Floor produced by Mayd Architecture). The habitat condition assessment has been based on Ratcliffe criteria, guidance criteria stipulated in the Biodiversity Metric 3.1 Technical Supplement document and professional judgement.

NET LOSS

If the development results in a biodiversity loss (N.B. once there is the mandatory 10% gain, this will need to be included within any calculations) then this becomes an 'offset requirement' and compensation will be required. At the moment there are three main options to compensate for the loss of biodiversity, as detailed below:

1. Identify an area of land off-site and enter into an agreement with the landowner to create and manage the site for nature conservation value.
2. Make a financial contribution via a Section 106 legal agreement to the Council (if they have a scheme in place) or another offsetting provider such as the Environment Bank.
3. Install a range of enhancement measures on site such as integrated bird and bat boxes and other features for wildlife (e.g. insect boxes, log piles etc.).

In the event that compensation is required then the preference would be to enter into an agreement with the local planning authority, who may have specific initiatives in the area which will benefit local wildlife.

DEFRA's Biodiversity Metric will be the metric that underpins the Environment Bill's provisions for mandatory biodiversity net gain in England.

RESULTS

Site Description

The site is located off Oatlands Drive in Weybridge, Surrey, centred at National Grid Reference: TQ 094662 and covers approximately 0.35 of a hectare. The site comprised the existing residential properties and associated garden areas. The site is bordered by Oatlands Drive to the south-east, residential properties and associated gardens to the south-west, a construction site to the north-east, and the Engine River with deciduous woodland beyond to the north-west.

Habitats

The site comprised the existing properties with associated hardstanding and amenity garden areas, with a few individual trees also present. The existing habitats within the site will be removed and replaced by the proposals, including the new block of flats with associated hardstanding, amenity garden and biodiverse green roofs.

In addition, further enhancement measures will include the provision of new 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
- Bird feeders
- Bug hotels
- Hedgehog houses
- Bat boxes
- Log piles
- Communal gardens
- Pollinator nest sites
- Planting wildflowers

Details of existing and proposed habitats have been provided in Table 1.

Table 1: Habitat Areas

Existing Habitat Baseline		
Habitat	Area (ha)	Comment
Vegetated garden	0.22	
Developed land; sealed surface	0.13	
Urban tree*	0.0977	0.0488 retained
Total	**0.35**	
Total Biodiversity Units	**1.22**	
Proposed Habitat Creation		
Habitat	Area (ha)	Comment
Developed land	0.15	
Vegetated garden	0.14	
Biodiverse green roof	0.06	
Urban tree*	0.118	2 medium, 11 small trees
Total	**0.35**	
Total Biodiversity Units	**1.29**	

Results:	Unit Change	**Habitat**	0.07
	Percentage change	**Habitat**	5.64 %

*Urban Tree areas are not included within the total area calculation of the Defra Metric 3.1.

Biodiversity Net Gain Calculation

The assessment has resulted in an overall net gain of 0.07 habitat units, the equivalent increase of 5.64 % (a copy of the Headline Results has been attached at Appendix A). In addition, non-tangible enhancement measures such as the provision of wildlife boxes and other features, such as log piles and bug hotels, which are not factored in on the DEFRA Metric, will provide additional opportunities and benefits for local wildlife.

SUMMARY

The BNG assessment has been completed based on the existing and proposed habitats for the site (Figures 1 and 2). The proposals are to construct replacement flats with associated hard and soft landscaping, requiring the demolition of the two existing properties (16 and 18 Oatlands Drive) and clearance of some garden vegetation.

The assessment completed demonstrates that the scheme will achieve a biodiversity net gain due to creating biodiverse green roofs and new tree planting. There are opportunities to introduce a range of new habitats along with non-tangible benefits, such as the provision of wildlife boxes and `other features, and if designed sensitively and managed appropriately will result in an overall ecological benefit in comparison to the existing onsite conditions.

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Figures

UK HABS KEY

- Site Boundary*
- Vegetated Garden
- Developed Land/Sealed Surface

Existing Habitats (ha)

Vegetated Garden	0.22
Developed Land;Sealed Surface	0.13
Urban Trees	0.0203
Total Area*	0.35

*Excluding trees

Rev.	Details	Drawn / Chkd.	Date

Project

213316
16-18 Oatlands Drive
Weybridge

Title

Existing Habitats Plan

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Scale	Date	Drg. No.	Rev.
As shown	14.12.22	Figure 1	
	Drawn: KC / Chkd.: ARB		

0m 2m 20m

Drawing : Proposed Site 3rd Floor
Drawing No. : MA212 255
Revision : P3

Scale : 1:200 @ A1 / 1:400 @ A3
Date : May 2022

16-18 Oatlands Drive, Weybridge, Surrey KT13 9JL

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Appendix A
Headline Results

16-18 Oatlands Drive

Headline Results

Return to results menu

On-site baseline	*Habitat units*	1.22
	Hedgerow units	0.00
	River units	0.00
On-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	1.29
	Hedgerow units	0.00
	River units	0.00
On-site net % change (Including habitat retention, creation & enhancement)	*Habitat units*	5.64%
	Hedgerow units	0.00%
	River units	0.00%
Off-site baseline	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
Off-site post-intervention (Including habitat retention, creation & enhancement)	*Habitat units*	0.00
	Hedgerow units	0.00
	River units	0.00
Total net unit change (including all on-site & off-site habitat retention, creation & enhancement)	*Habitat units*	0.07
	Hedgerow units	0.00
	River units	0.00
Total on-site net % change plus off-site surplus	*Habitat units*	5.64%
	Hedgerow units	0.00%
	River units	0.00%
Trading rules Satisfied?		Yes ✓

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Therefore, DBH values within AIA reports should be used to calculate area values for use with the metric (rather than RPA's prescribed by the AIA).

7.10. In the absence of detailed measurements, the 'Urban tree helper' may be used to generate an area equivalent RPA value (for example, at project scoping prior to detailed survey). The urban tree helper is found within the 'Main menu' of the metric tool. Table 7-2 sets out class sizes of Urban tree sizes, and area equivalent (for input into the metric tool).

TABLE 7-2: Urban tree size classes and their area equivalent

Size class	Diameter at breast height (cm)	Metric RPA radius (m)	Metric area equivalent (ha)
Small	≤ 30cm	3.6m	0.0041 ha
Medium	> 30 to ≤ 90cm	10.8m	0.0366 ha
Large	> 90 cm	15.6 m	0.0764 ha

Post-development

7.11. When calculating the area for newly planted Urban trees Table 7-2 should be used. Size classes for newly planted trees should be classified by projected size at 30 years from planting.

7.12. When determining post-development changes to rural hedgerows and lines of trees recorded in the baseline (see Chapter 8) these should not be entered post-development as linear blocks of Urban trees. This is to satisfy trading rules.

Strategic significance

7.13. The approach taken to determine strategic significance is described in Sections 5.15 - 5.23.

Note: where there are mitigating factors, then the relevant decision maker (e.g. a local planning authority tree officer) may deem that tree to be of particular strategic significance.

Condition assessment

7.14. Urban trees are assessed using an Urban tree condition assessment proforma to score the trees as either poor, moderate or good condition (see Technical Supplement Part 1a).

7.15. For the condition assessment, the proforma allows for trees within linear blocks and perimeter blocks to undergo a grouped assessment – rather than complete a proforma for each individual tree. However, the RPA of each individual tree within