Preliminary Ecological Appraisal

at

Clayhill Lodge, Epsom, Surrey, KT19 8JP

for Zestan Limited

Iceni Ecology Ltd.

October 2018

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Project	Author	Status	Date
Clayhill Lodge Ref: 18 0090	Drusilla Hall BSc (Hons) MCIEEM CEnv 	Final v1.0	October 2018

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INTRODUCTION

Instruction and background

Iceni Ecology Ltd. was instructed by Zestan Limited, 'the Client', to undertake a Preliminary Ecological Appraisal (PEA) at Clayhill Lodge, Epsom, Surrey, KT19 8JP, referred to as 'the site' hereafter within this report. The site includes the main property, garden shed and garden.

The PEA is in support of a future planning application to demolish Clayhill Lodge, and provide residential dwellings on the plot.

The purpose of the survey was to:

- Identify any features of ecological significance within the footprint of the proposed development and surrounding area.
- Broadly categorise the habitats within the site, and surrounding area if deemed necessary.
- Assess the potential for the presence or likely absence of protected species, including bats; and species or habitats of principal importance, within the footprint of the proposed development and surrounding area.
- Assess the likely impacts of the proposed development on key receptors.
- Recommend if further surveys are required.
- Provide an early indication of any likely mitigation or compensation requirements.

Location of site

The site is centred on approximate Ordnance Survey (OS) Grid Reference TQ 20167 60987 (Figure 1). The location is just north-west of Epsom centre in a predominantly residential area.

The survey area comprised the main property, garden shed and garden area. The indicative redline boundary is shown on Figure 2.

Figure 1: Location of site, centred on red marker

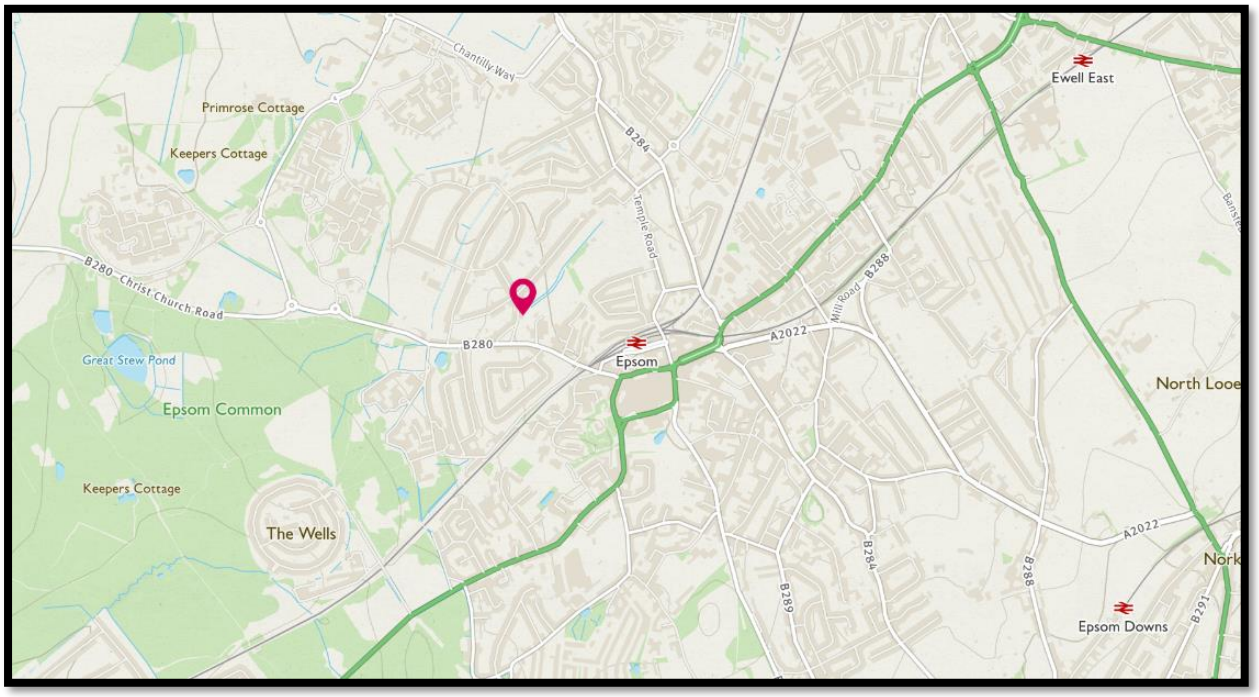


Figure 2: Indicative redline boundary

Relevant wildlife legislation

Certain habitats and species are protected under legislation. The principal legislation relevant to the proposed development is as follows:

- The Conservation of Habitats and Species Regulations 2017[1] ['The Habitats Regulations']. The Habitats Regulations implement The Habitats Directive 1992 [92/43/EEC] into English Law.
- Wildlife & Countryside Act 1981 (as amended)[2] (WCA).
- The Natural Environment & Rural Communities Act 2006 (NERC).
- The Protection of Badgers Act 1992 (The Badgers Act).
- The Wild Mammals (Protection) Act 1996.

Planning context

The National Planning Policy Framework

The National Planning Policy Framework 2018 (NPPF) sets out how planning policy is to be applied. Section 11 is concerned with conserving and enhancing the natural environment and states that the planning system should achieve this by "*minimizing impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity.* Under Section 11, the planning authority is advised that "*Opportunities to incorporate biodiversity in and around developments should be encouraged*".

National Planning Practice Guidance

The National Planning Practice Guidance (NPPG) accompanies the NPPF, providing guidance on its interpretation. The guidance on biodiversity contained in the NPPG replaces, *inter alia*, 'Planning for Biodiversity and Geological Conservation: A Guide to Good Practice' which accompanied Planning Policy Statement 9 (PPS9). The NPPG includes guidance on how biodiversity should be taken into account when preparing a planning application. This makes clear that local planning authorities should only require ecological surveys where clearly justified and that ecological assessments should be proportionate to the nature and scale of development proposed and the likely impact on biodiversity. The Guidance provides further information on the interpretation of the mitigation hierarchy (avoid – mitigate – compensate) and suggests ways in which new development can include enhancements for biodiversity.

[1] Amended by the Conservation of Habitats and Species (Amendment) Regulations 2012 S.I. 2012/1927.
[2] Amended by the Countryside & Rights of Way Act (2000).

Species and Habitats of Principal Importance

Under NERC, 56 habitats and 943 species respectively, of Principal Importance are listed in Section 41 (S41) of the Act. The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of NERC, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

SURVEY METHODOLOGY

Desk study

Web based resources[3] were used to identify statutory and non-statutory designated wildlife areas and ancient woodland blocks within 5km and 2km, respectively of the site.

Due to the small-scale nature of the proposals, biological records were not sought from the local records centre. However, a bat report[4] for the neighbouring 'Birchdene' site development (east) has been reviewed.

Walkover survey

A walkover survey was undertaken of the site on 2nd October, 2018 by Dru Hall BSc (Hons) MCIEEM CEnv of Iceni Ecology Ltd. with assistant. Dru is a Class II licensed bat worker.

General habitats and protected species

The survey methodology followed the standard Phase 1 methodology (JNCC, 2010[5]). An extension of this basic methodology was also undertaken to provide further details in relation to notable or protected habitats present within the survey area, or in relation to habitats present that have the potential to support notable or protected species (CIEEM, 2013[6]).

Bats (Preliminary Roost Assessment)

An assessment for bat roost potential was undertaken at site during the walkover survey in accordance with the Bat Conservation Trust's (BCT's) Good Practice Guidelines[7].

Buildings and trees are categorised in terms of their 'suitability' to support a roost or provide suitable habitat, as per 'Table 4.1' from the Guidelines (see below).

[3] MAGIC. www.magic.defra.gov.uk
[4] ACD Environmental Ltd. (13/08/17). Birchdene, Epsom, Surrey. Bat Survey Report. Zestan Ltd.
[5] JNCC (2010). *Handbook for Phase 1 habitat survey: a technique for environmental audit (revised reprint).* Joint Nature Conservation Committee, Peterborough.
[6] Chartered Institute of Ecology and Environmental Management, April 2013. Guidelines for preliminary ecological appraisal.
[7] Collins, J. (ed.) (2016) Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn). The Bat Conservation Trust, London.

Table 4.1 Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement.

Suitability	Description Roosting habitats	Commuting and foraging habitats
Negligible	Negligible habitat features on site likely to be used by roosting bats.	Negligible habitat features on site likely to be used by commuting or foraging bats.
Low	A structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions[a] and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats (i.e. unlikely to be suitable for maternity or hibernation[b]). A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.[c]	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated, i.e. not very well connected to the surrounding landscape by other habitat. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in a parkland situation) or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions[a] and surrounding habitat but unlikely to support a roost of high conservation status (with respect to roost type only – the assessments in this table are made irrespective of species conservation status, which is established after presence is confirmed).	Continuous habitat connected to the wider landscape that could be used by bats for commuting such as lines of trees and scrub or linked back gardens. Habitat that is connected to the wider landscape that could be used by bats for foraging such as trees, scrub, grassland or water.
High	A structure or tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions[a] and surrounding habitat.	Continuous, high-quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, lines of trees and woodland edge. High-quality habitat that is well connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

[a] For example, in terms of temperature, humidity, height above ground level, light levels or levels of disturbance.
[b] Evidence from the Netherlands shows mass swarming events of common pipistrelle bats in the autumn followed by mass hibernation in a diverse range of building types in urban environments (Korsten *et al.*, 2015). This phenomenon requires some research in the UK but ecologists should be aware of the potential for larger numbers of this species to be present during the autumn and winter in large buildings in highly urbanised environments.
[c] This system of categorisation aligns with BS 8596:2015 Surveying for bats in trees and woodland (BSI, 2015).

The assessment entails a detailed inspection of the exterior and interior of a structure to look for features that bats could use for entry/exit and roosting and to search for signs of bats and actual bats. The aim of this survey is to determine the actual presence of bats and whether further survey and/or mitigation may be required.

External inspection

A systematic search was undertaken of the exterior of the buildings to identify potential or actual bat access points and roosting places and to locate any evidence of bats such as live or dead specimens, bat droppings, urine splashes, fur-oil staining and/or noises.

Internal inspection

A systematic search of the interior of the garden shed was made to locate any evidence of bats or of previous use by bats. The main property does not comprise any loft areas due to bedroom conversion.

Further surveys for bats

Where the possibility that bats are present cannot be eliminated or evidence of bats is found during the assessments, then further surveys are likely to be necessary if impacts on the potential roosting habitat (or the bats using it) are predicted.

As a general rule, Table 7.3 from the Guidelines is used to determine the level of further survey effort required and Tables 7.1 and 7.2 are used for timings (see below).

Table 7.3 Recommended minimum number of survey visits for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability	Moderate roost suitability	High roost suitability
One survey visit. One dusk emergence or dawn re-entry survey[a] (structures). No further surveys required (trees).	Two separate survey visits. One dusk emergence and a separate dawn re-entry survey.[b]	Three separate survey visits. At least one dusk emergence and a separate dawn re-entry survey. The third visit could be either dusk or dawn.[b]

[a] Structures that have been categorised as low potential can be problematic and the number of surveys required should be judged on a case-by-case basis (see Section 5.2.9). If there is a possibility that quiet calling, late-emerging species are present then a dawn survey may be more appropriate, providing weather conditions are suitable. In some cases, more than one survey may be needed, particularly where there are several buildings in this category.
[b] Multiple survey visits should be spread out to sample as much of the recommended survey period (see Table 7.1) as possible; it is recommended that surveys are spaced at least two weeks apart, preferably more. A dawn survey immediately after a dusk one is considered only one visit.

Table 7.1 Recommended timings for presence/absence surveys to give confidence in a negative result for structures (also recommended for trees but unlikely to give confidence in a negative result).

Low roost suitability	Moderate roost suitability	High roost suitability
May to August (structures) No further surveys required (trees)	May to September[a] with at least one of surveys between May and August[b]	May to September[a] with at least two of surveys between May and August[b]

[a] September surveys are both weather- and location-dependent. Conditions may become more unsuitable in these months, particularly in more northerly latitudes, which may reduce the length of the survey season.
[b] Multiple survey visits should be spread out to sample as much of the recommended survey period as possible; it is recommended that surveys are spaced at least two weeks apart, preferably more, unless there are specific ecological reasons for the surveys to be closer together (for example, a more accurate count of a maternity colony is required but it is likely that the colony will soon disperse). If there is potential for a maternity colony then consideration should be given to detectability. A survey on 31 August followed by a mid-September survey is unlikely to pick up a maternity colony. An ecologist should use their professional judgement to design the most appropriate survey regime.

Table 7.2 Recommended timings for presence/absence surveys.

Survey type	Start time	End time
Dusk emergence	15 minutes before sunset[a]	1.5–2 hours after sunset[b]
Dawn re-entry	1.5–2 hours before sunrise[b]	15 minutes after sunrise[c]

[a] Survey start time should be adjusted on subsequent surveys if bats are recorded already in flight at 15 minutes before sunset on the first survey (or, if only one survey had been planned, this survey may then need to be repeated).
[b] The possibility of late-emerging and early-returning species should be considered in setting times for surveys (see Section 3.5).
[c] If bats are still in flight 15 minutes after sunrise then ecologists should remain in position until all the bats have entered their roosts.

Limitations

There were no limitations to the survey.

RESULTS AND DISCUSSION

Desk study

Statutory designated wildlife areas within 5km

There were six statutory designated wildlife areas identified within 5km of the site; these are presented in Table 1 below:

Table 1: Statutory designated areas within 5km of the site

Statutory designated area	Distance from survey site (at its shortest distance)	Information on designated area
Epsom Common Local Nature Reserve (LNR)	300m south-west	As below.
Epsom and Ashtead Commons Site of Special Scientific Interest (SSSI) and Ashtead Common National Nature Reserve (NNR)	620m south-west	358ha These two commons support a wide diversity of habitat types on the undulating terrain of the London clay. The site carries four nationally rare invertebrates and several others which are uncommon in Surrey. The range of habitats present promotes a rich community of breeding birds.
Stones Road Pond SSSI	1.1km north-east	0.5ha A large, deep pond which is an important breeding locality for the great crested newt *Triturus cristatus*.
Horton Country Park LNR	1.3lm north-west	Much of the woodland on the Country Park is known to be 'ancient' coppice woodland meaning that it was present before 1600. Since the 1980's the Council with the help of Volunteers from the Lower Mole Partnership have been slowly restoring the ancient woodland by recommencing coppicing. After the country park was created in 1973 there was a great deal of tree planting and today these young plantations are being managed with some being managed to become future hazel coppice and some fire wood coppice. Managing the woodland encourages a diverse flora on the woodland floor which in turn attracts a variety of wildlife including butterflies, birds and small mammals.
Hogsmill LNR	2.5km north-east	The open space along the Hogsmill is all that remains of the farmland that ran down to the banks of the Hogsmill River before the building of the various housing developments that border the site today. The Hogsmill River has played a very long and important role in the history of Ewell both as a source of power for several mills, including the gun powder mill complexes, and as an inspiring landscape for famous artists.
Castle Hill LNR	2.8km north-west	The site is now managed as a local nature reserve. Earthworks here are believed to be the remains of a medieval hunting lodge that was at the northern end of a medieval deer park owned by Merton College, Oxford, so-called after William Merton, Lord of the Manor, who had enabled poor scholars to go to Oxford University.

Non-statutory designated wildlife areas within 2km

Within the 2km radius, a single block of 'ancient replanted woodland' was identified 1.8km south-west of the site at Newton Wood.

Report review

The 'Birchdene site' is located adjacent east of the [application] site. This site was subject to a planning application with Epsom and Ewell Borough Council to demolish three buildings and erect a new three storey building comprising 13 flats with associated parking and landscaping (Reference 16/01145/FUL).

In May 2017, ACD Environmental Ltd. carried out emergence bat surveys at the Birchdene site. A small roost of common pipistrelle *Pipistrellus pipistrellus* was identified in one of the three buildings. Subsequently, the building was demolished under a Bat Low Impact Class Licence (BLICL) and mitigation measures were implemented.

Walkover survey

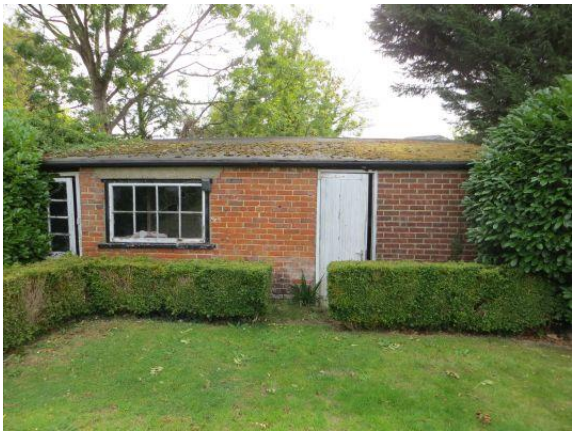
Habitats on the site

The site as a whole comprised a number of dominant 'habitat types', taken from those listed in the Handbook for Phase 1 Habitat Survey[7].

- Introduced shrub (ornamental planting);
- Amenity grassland (frequently mown lawn);
- Buildings (main property and garden shed); and
- Hardstanding (around the main property).

Photographs of the site are shown in Table 2 below:

Table 2: Photographs of the site

	
Main property with amenity grassland and introduced shrub habitats. Photographer facing north-west.	Garden shed, south-east of the garden area. Photographer facing south.

Habitat evaluation

Under NERC 2006, 56 habitats are listed under Section 41 as being 'Habitats of Principal Importance in England' and consequently require conservation priority and planning consideration.

None of the habitats on the site are classed as a habitat of 'Principal Importance' under NERC.

Protected species

The habitats and site as a whole were considered with respect to their potential to support protected species.

Mammals - badger

There were no signs of badger *Meles meles* activity at the site, or adjacent to the stable block. Signs typically include setts, hair, latrines, footprints and snuffle holes.

Mammals - bats

The buildings were assessed for bat roost evidence and potential.

Main property

The main property was surveyed externally. The property is a brick-built structure with a pitched, tiled roof with hip and ridge tiles. There are hanging tiles on the southern elevation of the house on the upper part of the building and around dormer windows.

A lead-roofed extension exists to the eastern elevation of the main property and a small garage to the north. These structures are both well-sealed.

The main property is assessed as having a number of potential bat roost features (PRF); these include numerous gaps under hanging and roof tiles and gaps under flashing.

The main property is assessed as having 'high' potential to support a bat roost, based upon the PRFs. As such, further surveys are recommended.

The garage and extension are assessed as having 'negligible' bat roost potential since these structures are well sealed with no gaps for potential entry or exit points for bats. As such, no further surveys are recommended.

Garden shed

The garden shed is located to the south-east of the garden. It is a brick-built structure with bitumen roof and ply ceiling lining. The western elevation is wooden and completely open to the elements.

External and internal inspection did not show any bats or previous use by bats. As such the garden shed is assessed as having 'negligible' potential to support a bat. No further surveys are recommended.

Photographs of the buildings are shown in Table 3.

Foraging habitat

The garden area is considered to provide suitable habitat for foraging.

Trees

There were no trees identified on the site considered to be suitable for roosting bats due to lack of potential bat roosting features.

Table 3: Photographs of the buildings and bat roost features (PRFs)

Gaps under hanging tiles. Southern elevation of main property.

Gaps under hanging tiles around dormer window. Southern elevation of main property.

Gaps under roof tiles and flashing. Main property.

Inside the garden shed.

Garage to the north of the main property. Photographer facing east.

Extension to the east of the main property. Photographer facing west.

Mammals - other

There were no signs of mammals using the site during the walkover survey.

Birds

There was no evidence of the buildings being previously used by nesting birds. The introduced shrub habitats in the garden area have potential to support nesting birds.

Herpetofauna

The habitats on the site are considered sub-optimal for common reptile species such as slow worm *Anguis fragilis*, common lizard *Zootaca vivipara,* and grass snake *Natrix natrix*. Likewise for great crested newt (GCN).

Invertebrates

The limited habitats on the site are unlikely to support invertebrates due to lack of suitable food plants.

Flora

No rare or protected flora was identified during the walkover survey.

Invasive plant species such as Japanese knotweed *Fallopia japonica* were not identified at the site during the walkover survey.

EVALUATION AND RECOMMENDATIONS

Table 4 below includes an evaluation of the desk study and walkover survey, together with recommendations for further survey. The Table represents the site as a whole, within the redline boundary.

Table 4: Survey evaluation and recommendations

Ecological Receptor	Evaluation	Recommendations / Comments
Designated wildlife areas	The desk study identified six statutory designated wildlife sites within 5km of the site: Epsom Common LNR [300m south-west], Epsom and Ashtead Commons SSSI and Ashtead Common NNR[620m south-west]; Stones Road Pond SSSI [1.1km north-east], Horton Country Park LNR [1.3lm north-west], Hogsmill LNR [2.5km north-east]; and Castle Hill LNR [2.8km north-west]. Within 2km of the site, a single block of 'ancient replanted woodland' was identified 1.8km south-west, at Newton Wood. Due to the small-scale nature of the proposals and distance, adverse impacts to statutory and non-statutory designated wildlife areas are assessed as being negligible.	No further assessment recommended.
Report review	A review was undertaken of a report by ACD Environmental Ltd. of the adjacent (east) Birchdene development, 2017, with respect to bats. A single small common pipistrelle bat roost was found in one of the three properties which were demolished as part of the development. Mitigation was undertaken under a BLICL. Since a bat roost existed adjacent to the [application] site, it is evident that there is suitable foraging habitat in the vicinity.	See section under 'Mammals -bats'.
Habitats	The main habitats on the site comprise: • Introduced shrub (ornamental planting); • Amenity grassland (frequently mown lawn); • Buildings (main property and garden shed); and • Hardstanding (around the main property).	No further assessment.

Ecological Receptor	Evaluation	Recommendations / Comments
	None of these habitats are listed as a habitat of Principal Importance under Section 41 (S41) of NERC. The S41 list is used to guide decision-makers in implementing their duty under Section 40 of NERC, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.	
Mammals - badger	There were no signs of badger on or adjacent to the site. Badgers and their setts are protected under the Protection of Badgers Act 1992. Protection also extends to include disturbance.	No further surveys recommended.
Mammals – bats	Buildings were assessed for their potential to support a bat roost. The main property (with garage and extension) and garden shed. The main property was assessed as having 'high' potential to support a bat roost due to the many potential bat roost features such as gaps under hanging tiles and roof tiles, and gaps under flashing. The attached garage and extension were both assessed as having 'negligible' potential to support a bat roost due to the buildings being well sealed. The garden shed was assessed as having 'negligible' potential to support a bat roost. Full access inside and outside of the building did not identify any bats or evidence of previous use by bats. There was also a lack of potential bat roost features. The garden area is considered to offer suitable habitat for foraging bats. There were no trees identified on the site considered to be suitable for roosting bats due to lack of conducive features. All species of bat are afforded full legal protection under Schedule 5 of the WCA. They are also listed under Schedule 2 of the Habitats Regulations. Some species of bat are also listed in Section 41 of NERC as a species of Principal Importance.	Further bat surveys are recommended for the main property. For buildings with 'high' bat roost potential, three surveys are required if these are earmarked for demolition or conversion. The BCT Guidelines recommend two emergence and a single re-entry survey. The optimum months for emergence and re-entry surveys are from May to August, spread across the season. Emergence surveys commence ¼ hour prior to sunset to up to 2 hours after sunset; re-entry surveys commence 2 hours prior to sunrise, to sunrise. Surveys are undertaken using electronic bat detectors and observation aids. The number of surveyors is determined by having to gain sufficient vantage points around buildings. If bats are discovered using the building as a roost, works can only proceed under the auspices of a European Protected Species (EPS) licence granted from Natural England. Mitigation would be required to offset the loss of roost(s).

Ecological Receptor	Evaluation	Recommendations / Comments
	Under the Habitats Regulations it is an offence to: • Deliberately capture, injure or kill a bat. • Deliberately disturb a bat in a way that would affect its ability to survive, breed or near young (or hibernate or migrate) or significantly affect the local distribution or abundance of the species. • Damage or destroy a breeding site or resting place. This is an 'absolute' offence and need not be deliberate or intentional. • Possess, control, transport, well, exchange or offer for sale/exchange any live or dead bat or any part of a bat. Under the WCA, it is an offence to: • Intentionally or recklessly disturb a bat at a place of shelter or protection. • Intentionally or recklessly obstruct access to a place of shelter or protection. • Sell and advertise. Bats are classed as 'European Protected Species' and mitigation will typically be undertaken under the auspices of a licence from Natural England.	
Mammals - other	There were no signs of any mammals using the site. All wild mammals are protected under the Wild Mammals (Protection) Act, 1996.	No further surveys recommended.
Birds	There were no signs of previous nesting activity at the buildings, although the garden's introduced shrub does provide suitable habitat for nesting birds. All wild birds whilst actively nesting are afforded legal protection under the WCA. Special protection is also afforded to birds listed on Schedule 1 of the WCA which makes it an offence to disturb these species at nest or the dependent young.	Vegetation removal is recommended to be undertaken outside of the nesting season. The nesting season is deemed to be from mid-March to mid-August. If this is not feasible, then a nesting bird survey should be undertaken prior to clearance works. If nesting activity is observed, then a 7m buffer zone should be set up around the nesting habitat until the chicks have fledged.
Herpetofauna (reptiles and amphibians)	The habitats on the site are considered sub-optimal for herpetofauna, which includes terrestrial habitat for GCN. There are no waterbodies on the site.	No further surveys recommended.

Ecological Receptor	Evaluation	Recommendations / Comments
	Common reptiles are afforded protection under Schedule 5 of the WCA from deliberate injury, killing and trade. They are also listed under Section 41 of NERC as species of Principal Importance. GCN is afforded full legal protection under Schedule 5 of the WCA. It is also listed under Schedule 2 of the Habitats Regulations. This species is also listed under Section 41 of NERC as a species of Principal Importance.	
Invertebrates	The limited habitats on the site are unlikely to support invertebrate species due to lack of food plants. Some invertebrate species are protected under Schedule 5 of the WCA, are s41 priority species, and are also listed within Red Data Books to denote their conservation status.	No further surveys recommended.
Flora	The limited habitats on the site do not support any rare or protected flora. No invasive plant species were identified on the site such as Japanese knotweed.	No further surveys recommended. Currently, no further action is required for invasive species.

ECOLOGICAL ENHANCEMENTS

Introduction

The proposed development is considered unlikely to be adversely detrimental to any designated areas, protected species or habitats, provided the recommendations are followed in Table 4.

However, a number of considerations and enhancements are recommended with respect to the overall biodiversity of the site.

Landscape planning

The following enhancements are recommended if new landscaping is undertaken.

- For any new lawned areas, it is recommended that a species rich amenity grass mix is used.
- New planting of shrubs and trees should comprise native species and / or be of benefit to wildlife.

Nesting birds

Due to the potential loss of nesting habitat from vegetation removal on the site, it is recommended that, if feasible, at least one sparrow terrace is fitted to the new-builds. An example is the Schwegler Terrace 1SP, as shown below.

The terrace can be fixed on to the surface of a suitable wall or incorporated into the wall. It is suitable for all types of houses in built-up areas. Due to its weight (15kg), it is not suitable for fences or garden sheds. Ideally place the terrace two metres or more above the ground. Either install on the surface of the wall using the plugs and screws provided, or install directly into the wall. Cleaning is advisable but not necessary. The front panel can be removed by turning the screw hook.

These terraces are available from www.nhbs.com