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Ecological and Bat Potential Assessment

162 Stakes Hill Road,

Waterlooville, P07 7BS

<i>Date</i>	<i>Author</i>	<i>Version</i>
<i>30th June 2019</i>	<i>Richard Law BSc MRes CEnv CIEEM</i>	<i>1.0</i>

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Summary

Sylvatica Ecology Ltd was commissioned to carry out a Preliminary Ecological Assessment Survey at 162 Stakes Hill Road, Waterlooville P07 7BS; in relation to proposed development works.

The survey was carried out on the 15th June 2019 using standard methodology (JNCC 2010 & BS 42020). Habitats were assessed and any evidence for the presence of, or potential for, protected species was recorded.

The habitats present on site consisted of a building utilised as residential accommodation, ornamental planting, scattered broadleaved trees and a large lawn area (amenity grassland). The trees did not exhibit any ecological potential in their capacity to support roosting bats. The ornamental planting (garden) and amenity grassland (lawn) were both well maintained, therefore were of low and negligible ecological value respectively.

The residential building consisted of living space on the ground floor and first floor. The first floor encroached into the roof void area, which reduced the loft space into a small area no more than 1.5m in height, 1.5m in width and 7m in length. The roof void was utilised as a storage space and access into this area was possible. A search of evidence of the presence of bats found that there was no evidence of bats within this part of the building. There were cobwebs present throughout, particularly along the apex of the loft space. There was a layer of roof felt, but there were no gaps or tears.

Externally, the overall condition of the brickwork was good, with no gaps. There were some small gaps within the soffit boarding, particularly on the western roof apex and there were some gaps under the roof tiles and on the hanging tiles on the northern face. These gaps under the hanging and roof tiles are potential features that roosting bats could utilise. Therefore, this building had a moderate potential to support roosting bats.

The adjacent habitats consisted of a mix of private gardens, residential properties and scattered broadleaved trees/ copses. Waterlooville is situated approximately 15 miles from the south coast of England in the country of Hampshire. This location is within a

larger area of urban development which continues into Havant, Purbrook, Drayton and Portsmouth. There were areas of more open habitat, particularly eastwards. However, the A3(M) main road connecting this area with London was 2km to the east, forming a significant barrier to the dispersal of some wildlife.

This report makes the following ecological recommendations:

- Due to the presence of some gaps under the roof tiles, soffit boarding and hanging tiles, the building had a **moderate** potential to support roosting bats.
- The roof area itself was mostly used as residential dwelling, limiting the potential presence of void dwelling species. No evidence of bats was noted within the roof void.
- Evening emergence and dawn re-entry surveys are recommended. There would need to be one evening survey plus one additional evening or dawn survey at the property, covering as much of the building as possible. These would need to be carried out within the bat activity season.
- Due to the potential for breeding birds to be present, time all vegetation clearance, tree removal and external building work to occur outside the bird nesting season (March to August inclusive).
- If this is not possible, it is recommended that a suitably experienced ecologist be present to inspect the trees, vegetation and any external parts of the building for nesting birds. Should any nesting birds be found, the works at that specific location would have to be suspended until the young have fledged.
- The wildlife value of the site can be improved considerably by the incorporation of wildflower planting and the installation of a pond with emergent and macrophytic plant species.

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1 Introduction

Aim of the study

- 1.1 This report is a preliminary ecological assessment of the land within the boundary of the property located at 162 Stakes Hill Road, Waterloooville P07 7BS (NGR: SU 68712 08358). Development works are planned to be carried out, for which a planning application is to be made.
- 1.2 The aims of this habitat survey was to assess the habitats present on and adjacent to the site in accordance with JNCC methodology (2010) and BS 42020 and to identify the presence of, or the potential for, protected or otherwise notable species. Any changes to the ecological conditions on site will be highlighted
- 1.3 Recommendations on any further survey requirements may be made as a result of the findings of this habitat survey.

Site description

- 1.4 The property consisted of a building utilised as residential accommodation, ornamental planting, scattered broadleaved trees and a large lawn area (amenity grassland). The adjacent habitats consisted of a mix of private gardens, residential properties and scattered broadleaved trees/ copses. Waterloooville is situated approximately 15miles from the south coast of England in the country of Hampshire. This location is within a larger area of urban development which continues into Havant, Purbrook, Drayton and Portsmouth. There were areas of more open habitat, particularly eastwards. However, the A3(M) main road connecting this area with London was 2km to the east, forming a significant barrier to the dispersal of some wildlife.

1.5 **Figure 1 - Site Location (Red Line Boundary)**



2 Methodology

- 2.1 A survey was conducted on the 15th June 2019. Habitats were assessed in accordance with the standard Phase 1 Habitat Survey methodology, as set by the JNCC in their “Handbook for Phase 1 Habitat Survey” (JNCC 2010) and assessed in accordance to BS 42020 – a code of practice for biodiversity in planning and development.
- 2.2 Faunal species identified during the survey were noted. Any evidence for the presence of, or potential for, protected species was also noted. In particular, species considered included amphibians, bats, reptiles, mammals and breeding birds. All identified plant species were recorded.
- 2.3 An assessment of the building [externally and internally] was made for bats using standard best practise methods as set out in BCT (2016) and (Mitchell-Jones, 2004), including the following:
- droppings, particularly on sheltered areas such as window ledges, pipes or cobwebs where droppings can lie undisturbed,
 - potential access points such as broken ventilation bricks or loose slates,
 - staining from urine, faeces or fur rubbing.

Tree Roost Potential

- 2.4 The trees on site were all categorised according to their potential to contain roosting bats or have features which would result in the tree being suitable for roosting bats:

Low

- no cracking or flaking bark,
- no crevices splits or holes,
- smooth bark,
- very little, or no standing deadwood.

Medium

- presence of one or two holes within tree,
- low ivy cover,
- deadwood present in canopy or stem.

High

- cracks, crevices and splits,
- loose and flaking bark,
- medium / heavy ivy cover,
- hollow stems present,
- deadwood in canopy or on stems,
- twisted / snagged branches.

Limitations

- 2.5 It should be borne in mind that the behaviour of animals can be unpredictable and may not conform to standard patterns recorded in scientific literature. Therefore, this report cannot predict with absolute certainty that animal species will occur in apparently suitable locations or habitats, or that they will not occur in locations or habitats that appear unsuitable.
- 2.6 In order to minimise the likelihood of adverse effects on protected animal species, it is accepted good practice, in accordance with Natural England (NE) (formerly English

Nature) guidance for ecological surveys to be repeated should development be deferred for over 12 months from the date of initial survey.

- 2.7 A data search for designated sites and species records has not been made. This is due to the very small scale of this development project and that this site is already developed and in use. Any protected species issues (e.g. bats) and associated survey requirements will have been raised within this report.
- 2.8 The survey work and reporting has been undertaken by Richard Law BSc MRes CEnv MCIEEM. Richard has been undertaking ecological survey work within the last 15 years on a number of differing locations throughout the United Kingdom for a variety of protected species, including bats (Class 2 2015-12576-CLS-CLS) reptiles, amphibians including great crested newt (*Triturus cristatus*) (Class 1 2016-20290-CLS-CLS) and terrestrial mammals including dormice (*Muscardinus avellanarius*) (2015-13188-CLS-CLS) and birds including barn owl licence (CL29/00236). Richard is also qualified in track and sign and trailing *via* an international system of assessment (www.tracker certification.com).

3 Habitat Survey Results

- 3.1 This section describes the habitats identified during the habitat survey. All the plant species names follow the nomenclature of Stace 1997.

Ornamental Planting

- 3.2 Around the edges of the property were non-native shrubs consistent with the type purchased in garden centres. The shrubs would potentially provide nesting opportunities for birds, but would otherwise be of low ecological value.

Building

- 3.3 The residential building consisted of living space on the ground floor and first floor. The first floor encroached into the roof void area, which reduced the loft space into a small area no more than 1.5m in height, 1.5m in width and 7m in length. The roof void was utilised as a storage space and access into this area was possible. A search of evidence of the presence of bats found that there was no evidence of bats within this

part of the building. There were cobwebs present throughout, particularly along the apex of the loft space. There was a layer of roof felt, but there were no gaps or tears.

Amenity Grassland

- 3.4 The lawn area was utilised as an external leisure space and was cut short at the time of the survey. There was no matting/ clumping which would indicate that the grass was mostly kept long, therefore it can be concluded that this location was regularly cut short. This habitat type was of negligible ecological value

Scattered Broadleaved Trees

- 3.5 Three medium sized trees were present on the southern boundary close to the residential property. There were two common beech (*Fagus sylvatica*) and a single ash (*Fraxinus excelsior*). These were of moderate ecological value, mostly for their potential for nesting birds.

4 Potential for Protected Species

Bats

- 4.1 There was only a small roof void present, only small gaps between the residential areas and the roof. This would likely limit the presence of roof void species (*Plecotus* sp. for example).
- 4.2 There were gaps present under the roof tiles and under the hanging tiles on the northern roof face. There were also gaps within the soffit boarding. These would have potentially provided suitable access points for smaller bat species (e.g. the pipistrelles) to roost under the tiles and within the soffits.

4.3 Plate 1 – Gaps under the soffit boarding



4.4 Plate 2 – Gaps under the hanging tiles and roof tiles (northern roof face)



- 4.5 Plate 3 – Gaps under the roof tiles on the eastern roof face.



- 4.6 All of the trees present onsite had a negligible potential to support roosting bats.

Breeding Birds

- 4.7 The building, trees and associated garden area would provide opportunity for nesting birds. The building for the same reasons as there being bats potential (gaps under tiles etc) with the trees and ornamental scrubs having the potential for the smaller nesting birds particularly.

5 Discussion

Bats

- 5.1 All eighteen of the UK's bat species are fully protected under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and the Habitats and Species Regulations 2017. This protects bats and their roosts from disturbance and destruction in England, Scotland and Wales.
- 5.2 The site provides potential roosting opportunities for bats within the roof of the building, under the tiles and within gaps under the soffit boarding. It is recommended

that one emergence plus and additional emergence or re-entry survey are carried out within the bat activity season (June to September inclusive).

- 5.3 Should bats be found to be roosting within the roof void there will be a requirement the application for a European Protected Species (EPS) licence, with suitable a suitable mitigation scheme put in place.
- 5.4 By following the recommendations for vegetation and demolition timing outside the bird-nesting season (see below) the work will also avoid the main bat breeding season (May till September). The optimum period for works in maternity bat roost is from the approximately October until approximately May (Mitchell Jones, 2004).

Breeding Birds

- 5.5 Breeding birds are protected, making it an offence to intentionally (or recklessly) kill, injure or take any wild bird, take, damage or destroy the nest of any wild bird while that nest is in use or being built, or take or destroy an egg of any wild bird. Any vegetation and tree clearance should avoid the breeding season (March to August inclusive).
- 5.6 If this were not possible, a suitably experienced ecologist would be required to check areas of vegetation subject to clearance immediately prior to works being carried out. If birds were found to be breeding at this time, clearance works would not be permitted to proceed until the young had fledged the nest.

6 Recommendations for Ecological Enhancement

- 6.1 Planting more native species in any areas proposed for soft landscaping, or creating a wildflower area to further argument the poor semi-improved grassland and installing a small pond will enhance the ecological value of this site. A list of these recommended plant species is available in Tables 1 & 2. These plants have been chosen to fit in to be both ornamental within the limited space of the property increasing the overall biodiversity value by enhancing the sites wildlife value over the course of the year.

6.2 Additional habitat can be incorporated that is suitable for invertebrates including stag beetles. This would normally take the form of a loggery, which would be buried vertically into the ground. A group of five logs together would be suitable for this location and can be installed in a discrete location behind a larger shrub/ hedge. The ecological benefits to invertebrates and stag beetles [particularly] will be substantial. The logs do not to be any more than 0.5m above ground to a depth of the same, so to ensure stability. The materials for the loggery can be obtained from any felled timber from the site.

6.3 **Table 1: List of Recommended Plant Species for Wildflower Area**

Species Name	Common Name
<i>Angelica spp</i>	Angelica
<i>Borago officinalis</i>	Borage
<i>Nepeta spp</i>	Catmint
<i>Allium shoenoprasam</i>	Chives
<i>Foeniculum vulgare</i>	Fennel
<i>Mentha spp</i>	Mint
<i>Rosmarinus officinalis</i>	Rosemary
<i>Thymus spp</i>	Thyme
<i>Origanum vulgare</i>	Wild majoram
<i>Echinacea purpurea</i>	Coneflower
<i>Tagetes spp</i>	French marigold
<i>Solidago canadensis</i>	Golden rod
<i>Sedum spectabile</i>	Ice plant
<i>Colchicum autumnale</i>	Meadow saffron
<i>Aster novi-belgii</i>	Michaelmas daisies
<i>Centranthus rubra</i>	Red valerian
<i>Verbena bonariensis</i>	Verbena

<i>Linaria purpurea</i>	Purple toadflax
<i>Lavendula spp</i>	Lavender
<i>Pulmonaria spp</i>	Lungwort
<i>Primula vulgaris</i>	Primrose
<i>Viola odorata</i>	Sweet violet
<i>Erysimum cheiri</i>	Wallflower
<i>Eranthis hyemalis</i>	Winter aconite
<i>Anemone nemorosa</i>	Wood anemone
<i>Alyssum saxatile</i>	Yellow alyssum

6.4 **Table 2: List of Recommended Plant Species for Pond**

Species Name	Common Name
<i>Iris pseudocarus</i>	Yellow flag
<i>Lychnis flos cuculi</i>	Ragged robin
<i>Lythrum salicaria</i>	Purple loosestrife
<i>Mentha aquatic</i>	Water mint
<i>Carex pendula</i>	Pendulous sedge
<i>Ceratophyllum demersum</i>	Hornwort
<i>Hottonia pulustis</i>	Water violet
<i>Menyanthes trifoliata</i>	Bogbean
<i>Nuphar luteum</i>	Yellow water-lily
<i>Stratiotes aloides</i>	Water soldier
<i>Veronica beccubunga</i>	Brooklime
<i>Fontinalis antipyretica</i>	Willow moss
<i>Myosotis palustris</i>	Water forget-me-nots
<i>Mimulus luteus</i>	Yellow musk

<i>Hydrocharis morsus ranae</i>	Frogbit
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7 References

BCT (2016) Bat Survey Guidelines for Professional Ecologists – Good Practice Guidelines.

BS 42020 Biodiversity – Code of Practice for Planning

Mitchell-Jones, A.J. & McLeish, A.P. (Eds) (2004). Bat Workers' Manual (3rd Ed.). JNNC, Peterborough.

JNCC (2010) Handbook for Phase 1 Habitat Survey: A technique for environmental audit. Joint Nature Conservation Committee, Peterborough.

Stace C. (1997) New Flora of the British Isles (second edition). Cambridge University Press.

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Wildlife and Countryside Act (1981) The Stationary Office, Norwich.