

Preliminary Ecological Assessment

20 Shinfield Road

Reading
Berkshire
RG2 7BW



Dr Stacey Dawn Waring
21-006-PEA
March 2021

SIGNED:



DATE: 26/03/2021

This report has been produced within the terms of the contract with the client and taking account of the resources devoted to it by agreement with the client.

I disclaim any responsibility to the client and others in respect of any matters outside the scope of the above.

This report is confidential to the client and we accept no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.

Contents

Executive Summary	4
1.1 Introduction	5
1.2 Objectives of the Survey and Report.....	5
1.3 Surveyor Information.....	5
1.4 Development proposals.....	5
2 Legislation.....	6
2.1 Bats And Great Crested Newt.....	6
2.2 Biodiversity Action Plan Species (BAP)	6
2.2.1 Reading Biodiversity Action Plan	7
2.3 Nesting Birds.....	7
2.4 Reptiles.....	7
3 Background	8
3.1 General Site Description.....	8
3.1.1 Surrounding Habitats	9
3.2 Habitats Within The Site	10
3.3 Grassland.....	11
3.4 Scattered Trees and Ornamental Shrubs/Bushes	11
3.5 Tall Ruderal Species and Scrub	13
3.6 Bare Ground and Hard-standing.....	14
3.7 Plant Species of Note	15
3.8 Additional Areas	15
4 Methods	17
4.1 Bats.....	17
4.2 Biodiversity Action Plan Species	18
4.3 Breeding Birds.....	18
4.4 Great Crested Newt	18
4.5 Reptiles.....	18

5	Results.....	19
5.1	Bats.....	19
5.2	Biodiversity Action Plan Species	19
5.3	Breeding birds.....	20
5.4	Great crested newt	20
5.5	Reptiles.....	20
6	Constraints/limitations.....	20
7	Conclusions	21
7.1	Bats.....	21
7.2	Biodiversity Action Plan Species	21
7.3	Breeding Birds.....	21
7.4	Great Crested Newts	21
7.5	Reptiles.....	21
7.6	Stag Beetles.....	22
8	Precautionary Method Statement.....	22
8.1	Hedgehogs, Reptiles and Great Crested Newts.....	22
8.2	Breeding Birds.....	23
8.3	Stag Beetles (Precautionary Information).....	23
9	Contingency Plan	25
10	References.....	25

Executive Summary

Eaves Ecology was commissioned by Mr Simran Luthra to conduct a preliminary ecological assessment, of land at 20 Shinfield Road, Reading, Berkshire, RG2 7BW. The central point of the site is located a grid reference SU 72819 71911. This was to support a future planning application.

The survey and report have been conducted and prepared by a qualified licensed ecologist Dr Stacey Dawn Waring. This report provides results of a preliminary ecological assessment conducted on 13th March 2021 during daylight hours, to assess the site for the potential presence of any protected species and identify habitats of conservation importance.

The site is approximately 0.05ha in area and comprises a detached house, with a car park to the front and a large mature garden to the rear. The site does not form part of any statutory or non-statutory designated nature conservation sites.

The trees within the site provide no roosting potential for bats, although the site does provide some habitats suitable for foraging bats. Due to the scale of the project, no adverse effects on local bat populations are foreseen. Further survey effort will only be required if the current property will be impacted by the works.

The West European Hedgehog is a UK BAP priority species. As these species are recorded in the local area and the site has some suitable habitats, there is the possibility that it could occur on site, certain precautions (outlined in Section 8.1) would be necessary during site clearance and construction in order to ensure that no individuals were harmed.

The habitat is suitable for some common species of garden bird (although not likely to be ground nesting) and requires that the impact of the development on nesting birds needs to be considered.

Aerial images show several waterbodies within 500m of the site, however, lack of suitable terrestrial habitat and connectivity result in the site being unsuitable for Great Crested Newts. No further survey effort is required, but precautionary measures are noted in Section 8.1.

The site provides no suitable areas for basking or foraging for reptiles and the lack of under storey further reduces the likelihood of reptiles using the site, consequently no further survey effort is required, but precautionary measures are noted in Section 8.1.

1.1 Introduction

Eaves Ecology was commissioned by Mr Simran Luthra to conduct a preliminary ecological assessment, of land at 20 Shinfield Road, Reading, Berkshire, RG2 7BW. A preliminary ecological assessment survey of the site was carried out by Dr Stacey Waring on the 13th March 2021 in order to evaluate any habitat on the site with the potential to support protected species and/or other species of conservation concern that could be relevant in respect of planning policies.

1.2 Objectives of the Survey and Report

The objective of the protected species walkover survey was to identify the potential presence of any species protected under the Wildlife and Countryside Act (1982) or the Conservation of Species and Habitats Regulations (2017) and/or Habitats of Conservation Importance.

Taking into consideration the geographical typology, region, habitat (local and wider landscape) type, habitat connectivity; species that could be encountered are:

- Bats;
- Biodiversity Action Plan Species (Hedgehog *Erinaceus europaeus*);
- Breeding birds;
- Great Crested Newt *Triturus cristatus*;
- Reptiles.

1.3 Surveyor Information

The initial bat assessment survey and report were completed by Dr Stacey Dawn Waring who has held a Class II Bat Licence (No. 2015-6768-CLS-CLS) for 9 years, Class I Great Crested Newt Licence (No. 2016-20292-CLS-CLS) for 6 years and is an Associate Member of CIEEM. She has 10 years' experience of carrying out research for the University of Berkshire and Bat Conservation Trust (4 years) and has worked with several ecological consultancies conducting bat surveys for 12 years, prior to establishing Eaves Ecology.

1.4 Development proposals

The plans for works to be conducted have been submitted to Reading Borough Council (Application 201879) and include the demolition of the existing house and erection of a new, detached building to provide 4 x 3 bedroom apartments, together with associated car parking, bin and cycle storage, access/servicing arrangements and landscaping improvement. The survey was required to identify if any bats are present and using the building and how they may be impacted by any proposed development of the building.

2 Legislation

This section briefly describes the legal protection afforded to protected species. It is for information only and is not intended to be comprehensive or to replace specialised legal advice. It is not intended to replace the text of the legislation, but summarises the salient points.

2.1 Bats And Great Crested Newt

Great Crested Newt (*Triturus cristatus*), and all species of British bat (*Vespertilionidae* and *Rhinolophidae*) are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), and receive full protection under *Section 9*. These species are also all listed as European Protected Species on *Schedule 2* of the *Conservation (Natural Habitats, etc.) Regulations 1994* which gives them full protection under *Regulation 39*. Protection was extended by the *Countryside and Rights of Way Act 2000*. Under the above legislation it is an offence to:

- kill, injure or take an individual;
- possess any part of an individual either alive or dead;
- intentionally or recklessly damage, destroy or obstruct access to any place or structure used by these species for shelter, rest, protection or breeding;
- intentionally or recklessly disturb these species whilst using any place of shelter or protection;
- or
- sell or attempt to sell any individual.

In the case of all species of British bat there is also protection under *Schedule 6* of *The Wildlife and Countryside Act 1981* (as amended) relating specifically to trapping and direct pursuit of these species.

Great Crested Newt and all species of British bat are included as priority species in the *UK Biodiversity Action Plan* and as species of principal importance for the conservation of biological diversity in England under *Section 74* of the *Countryside and Rights of Way Act 2000*.

2.2 Biodiversity Action Plan Species (BAP)

The UK Biodiversity Action Plan (UK BAP) was the Government's response to the Rio Convention on Biological Diversity signed in 1992. . As a result of new drivers and requirements, the 'UK Post-2010 Biodiversity Framework', published in July 2016, has succeeded the UK BAP. It describes the UK's biological resources and commits a detailed plan for the protection of these resources. Action plans have been developed which set priorities for important wildlife species both nationally and locally. The potential effects of any development on species listed as priorities in the UK BAP and by Local Biodiversity Partnerships (i.e. in the Reading BAP) are capable of being a material consideration in the preparation of regional spatial strategies and local development documents and the making of planning decisions

2.2.1 Reading Biodiversity Action Plan

The Biodiversity Action Plan (BAP), produced in March 2021, is an overall framework for conserving biodiversity, which means the variety of life and its processes, within Reading. It aims to ensure that by 2030 Reading will be richer in wildlife, be better connected to the wider landscape and that biodiversity loss will have been reversed. It also places biodiversity at the heart of the Council's activities.

2.3 Nesting Birds

All species of bird are protected under *Section 1* of the *Wildlife and Countryside Act 1981* (as amended). Protection was extended by the *Countryside and Rights of Way Act 2000*. Under the above legislation it is an offence to intentionally:

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

Certain species are listed on *Schedule 1* of the *Wildlife and Countryside Act 1981* (as amended) and receive protection under *Sections 1(4)* and *1(5)*. The protection was extended by the *Countryside and Rights of Way Act 2000*. There are special penalties where the offences listed above are committed for any *Schedule 1* species and it is also an offence to intentionally or recklessly:

- disturb any such bird when it is building its nest or while it is in or near a nest containing dependant young; or
- disturb the dependant young of any such bird.

2.4 Reptiles

Common Lizard (*Lacerta vivipara*), Grass Snake (*Natrix natrix*), Slow-worm (*Anguis fragilis*), and Adder (*Vipera berus*) are listed under *Schedule 5* of the *Wildlife and Countryside Act 1981* (as amended), in respect of *Section 9(5)* and part of *Section 9(1)*. This protection was extended by the *Countryside and Rights of Way Act 2000*. Under the legislation it is an offence to:

- intentionally or deliberately kill or injure any individual of these species; or
- sell or attempt to sell any part of these species either alive or dead.

3 Background

3.1 General Site Description

The site surveyed at 20 Shinfield Road is approximately 0.05ha (540m²) in area and consists of a detached house, a tarmacked drive to the front and an established lawned garden, which extends approximately 100ft and incorporates a brick paved patio which skirts the rear of the property. The gardens are enclosed by hedgerow and mature conifers, with a shed located at the rear of the garden.

The site at 20 Shinfield Road is located in a highly urbanised area, opposite the main entrance of the University of Reading (Whiteknights Campus). The site lies approximately 1.5km to the southeast of Reading town centre and 3km north of the M4 Motorway (Figure 1). The site is located a grid reference SU 72819 71911. The location of the site is shown in Figure 1 and the extent of the planned site boundary is shown in Figure 2.

The habitats in the local area and wider landscape are described in the following Section (3.1.1) and the main habitat types found within the site boundaries are described in the Section 3.2.

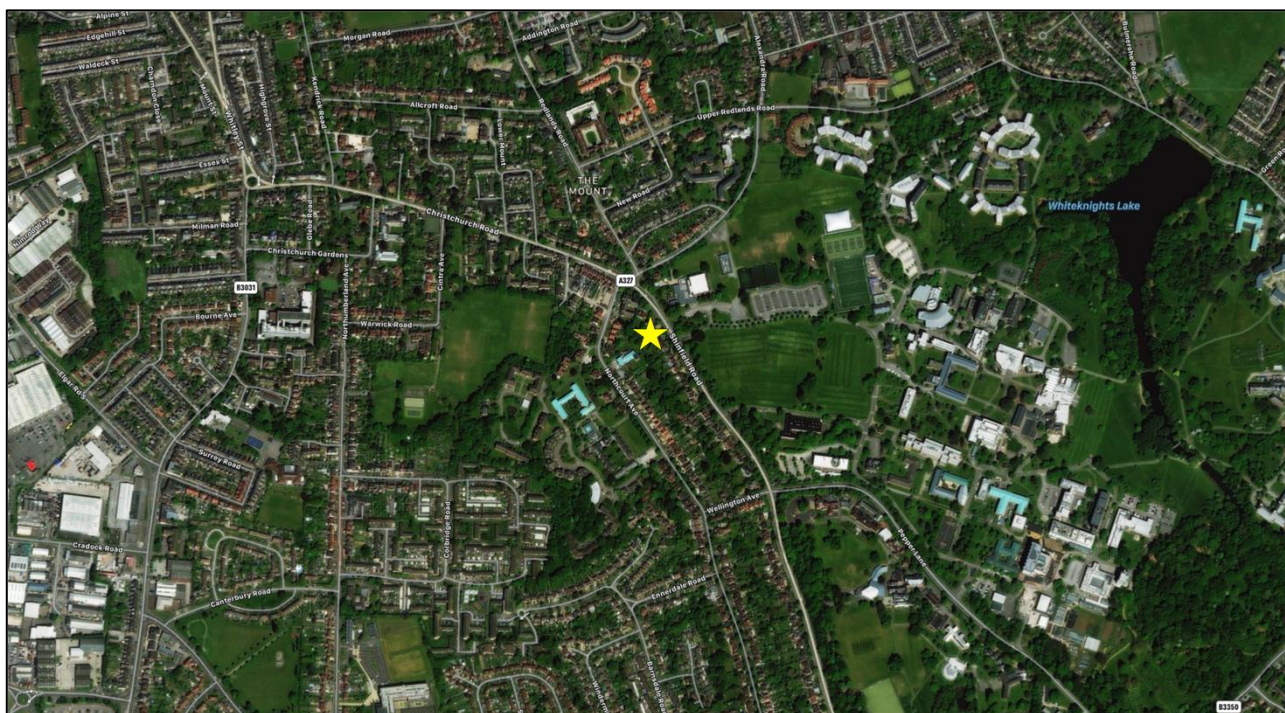


Figure 1 – Showing site location of land at 20 Shinfield Road, Reading (courtesy of Google Earth)



Figure 2 – Showing planned site boundaries of land at 20 Shinfield Road, Reading (Adapted from Hester Architect Drawings)

3.1.1 Surrounding Habitats

The site falls within the SSSI risk zones for Lodge Wood and Sandford Mill (SSSI) which lies 5km to the east, Sulham and Tidmarsh Woods and Meadows (SSSI) which are 9km to the northwest and Longmoor Bog (SSSI and LNR) which are 8km to the southeast.

There are numerous large areas of green space within close vicinity of the site. These include areas of woodland and parkland including; Whiteknights University Campus (200m east), Maiden Erlegh Park (2km southeast) and The Cowsey (2km south), which contain areas of Deciduous Woodland (Priority Habitat) and Woodpasture and Parkland (BAP Priority Habitats). There are also areas containing both Deciduous Woodland (Priority Habitat) and Ancient and Semi-Natural Woodland at Redhatch Copse (1.5km southeast) and High Wood (2km northeast).

There are numerous waterbodies including Whiteknights Lake within the University of Reading Campus and a large pond within Leighton Park School Grounds (all within 1km). The River Kennet also lies 1.5km west of the site. All of these habitat types combined increase the areas ability to support species of conservation importance.

However, connectivity between foraging habitats in the local vicinity is highly fragmented due to the built-up nature of the area. Not only are local foraging/commuting sites not interconnected, there is no connectivity with the wider landscape. As such the area surrounding the site is deemed to be poor for the majority of species covered by the legislation mentioned in Section 2. However, some species can be found within a highly urbanised environment.

3.2 Habitats within the Site

The property can be roughly divided into three sections. There is the tarmacked driveway/parking area at the front of the property (Figure 3), the house (Figures 3 and 4) and the garden to the rear (Figures 4 and 5).

The majority of the property boundary is lined with tall shrubs, bushes and young trees. There are two large trees at the front of the site which have Tree Preservation Orders placed on them (TPO Ref: 193/06). So these may need consideration when determining access to the site for construction vehicles. It should be noted the survey was carried out when most trees and flowering plants were not in flower/leaf. However, the site did have a large number of evergreen shrubs and trees.



Figure 3 – view from site boundary showing bushes, tarmacked driveway/parking and detached house



Figure 4– rear view of the house with the lawn section of garden



Figure 5— full view of garden from the rear of the house

3.3 Grassland

The large proportion of the garden on site was laid to lawn. The areas of lawn were dominated by Perennial Rye Grass (*Lolium perenne*). There were no areas of natural/improved grassland within the site.

3.4 Scattered Trees and Ornamental Shrubs/Bushes

A specific tree survey is required for the planning application, which will be conducted by an appropriately qualified Arborist. Consequently, in this report a general overview of the trees will be given and discussed in relation to how protected species may be impacted.

The site contains a number of individual trees distributed throughout the site (Figures 6a to 6d). A large majority of the trees are located on the site boundaries, close to the fence line. Tree species recorded included; Green Leylandii (*x Cuprocyparis leylandii*), Lawson Cypress (*Chamaecyparis lawsoniana*) Sycamore (*Acer pseudoplatanus*), Hawthorn (*Crataegus monogyna*), Fig Tree (*Ficus carica*) ornamental Acer (possibly Japanese), Crab Apple (*Malus sylvestris*) and Hazel (*Corylus avellana*). There are also a number of Laurel and Conifer trees of which a species couldn't be determined.

Shrubs line almost the entire boundary of the site, with a wide variety of ornamental plants. Some of the species notes included Buddleia, Laurel, Berberis, Camellia, Euonymus, Fatsia, Lonicera, Viburnum and Holly.

The majority of trees are young trees or self-seeded saplings, with several large coniferous trees towards the end of the rear garden. Whilst none of these are suitable for roosting bats, the numerous trees along with the continuous boundary of shrubs, provide potential nesting habitat for birds (Figures 3 and 6). In a number of trees old birds' nests can be seen (Figure 6b).

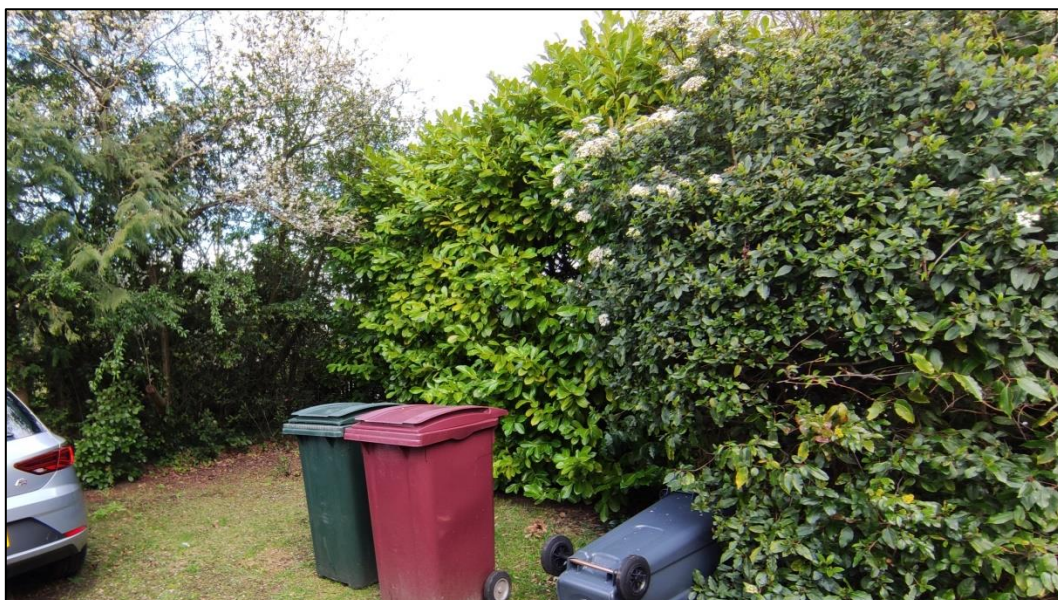


Figure 6a – Example of the trees and shrubs located at the front boundary of the site



Figure 6b – Example of the trees and shrubs located within the rear garden of the site



Figure 6c – Example of the trees and shrubs located within the rear garden of the site



Figure 6d – Example of the trees and shrubs located within the rear garden of the site

3.5 Tall Ruderal Species and Scrub

There are very small patches of tall ruderal species and scrub within the site boundaries. The areas that do exist are mostly along the boundaries with neighbouring gardens. Species recorded in this area were Elder (*Sambucus nigra*), Broad-leaved dock (*Rumex obtusifolius*), Common nettle (*Urtica dioica*) and Rosebay Willow-herb (*Epilobium angustifolium*). Scrub species included Bramble (*Rubus fruticosus*), Common Ivy (*Hedera helix*) and Holly (*Ilex aquifolium*). The scrub was patchy in areas closer to the house (Figure 7a) and in the area surrounding the shed (Figure 7b) and provided very poor under-storey habitat. However, there were also small areas of dense scrub (Figure 7c) which did provide good low level structure and protection.



Figure 7a – area between trees and shrubs with minimal scrub or tall plants



Figure 7b – around the shed there are some scattered scrub plants under the trees



Figure 7c – small area of denser scrub, which would provide much more cover in summer

3.6 Bare Ground and Hard-standing

There were two main areas where hard-standing could be found around the site. The largest area consisted of the tarmacked car park at the front of the property (Figures 3 and 8a). Secondly there was a patio that wrapped around the rear of the property that consisted of a mix of paving slabs and concrete (Figure 8b). There was only one area where bare-ground could be found and this was at the very end of the rear garden near the shed (Figure 7b). This was due to the shade provided by the trees within the area. At the time of the assessment there was a high level of leaf litter, however, this is periodically removed. The area is also used by people and dogs for recreation, combined with the lack of vegetation the site is ecologically poor at ground level.



Figure 8a – Showing hard-standing area at the front of the property



Figure 8b – Showing hard-standing area at the rear of the property

3.7 Plant Species of Note

No plant species of note were recorded within the site.

3.8 Additional Areas

There are some features in the rear garden worth mentioning, as they may provide habitats for some of the species under consideration within this report. These include large piles of old garden/green waste (Figure 9a and 9b), which include leaf litter, grass clippings and tree trimmings. There is also a reasonably size gap underneath the shed that has signs of being used by small mammals (Figure 9c).



Figure 9a – Showing pile of garden/green waste next to the shed



Figure 9b – Showing pile of garden/green waste next to the shed and under Leylandii



Figure 9c – Showing gap under the shed that had signs of use by small mammals

4 Methods

A preliminary ecological assessment was carried out on 13th March 2021 to evaluate the site for its potential to support protected species in addition to other species of conservation importance that could be relevant in respect of planning policies.

Taking into consideration the geographical region and habitat type, species that could be encountered are:

- Bats (a separate report has been compiled after a full assessment of the house)
- Biodiversity Action Plan Species (e.g. Hedgehog);
- Breeding Birds;
- Great Crested Newt
- Reptiles

In addition, observations of any important plant communities, plant species of note or other valuable ecological features will have been recorded and detailed. Details of the initial survey method for each species are given below.

4.1 Bats

An Initial Bat Assessment was also completed on the 13th March 2021. The full method details and results are described in a separate report, submitted to support the planning application.

Any trees within the site and around the boundary edge were observed (from the ground) looking for potential roosting features suitable for bats, including; spaces that appear suitable for bats and potential access points. Bats will roost in cavities created by woodpeckers, rot or storm damage, but they prefer cavities that go upwards into the tree. They also make use of spaces behind flaking or peeling bark. Bats will not use cracks or cavities exposed to the elements, and so cavities that are likely to fill with rainwater are unsuitable for bats.

Sometimes a bat's occupation of a cavity will be revealed by the presence of scratch marks, oil stains from the bat's fur or droppings around the hole. However, small numbers of bats may not leave claw marks or oil stains, and droppings can be washed away. Therefore, further surveys are recommended if there is any doubt.

To assess the value of the trees to bats, trees are classified into categories as set out within the Bat Survey Good Practice Guidelines (Hundt, 2016). These categories include:

- **Category 1* Trees** – trees with multiple highly suitable features capable of supporting larger roosts;
- **Category 1 Trees** – trees with definite bat potential, supporting fewer suitable features as Category 1* Trees;

- **Category 2 Trees** – trees with no obvious potential but of a size and age where elevated surveys may result in suitable features being found; and
- **Category 3 Trees** – trees with no obvious potential to support bats.

4.2 Biodiversity Action Plan Species

The habitats present on site were assessed for the likelihood of presence for species of regional and national importance, including hedgehogs and common toads.

4.3 Breeding Birds

Habitats were assessed for their suitability for nesting birds. This could include ground nesting species, such as Skylark (*Alauda arvensis*), birds that favour scrub and birds that nest in trees.

4.4 Great Crested Newt

Initial surveys centre on identifying suitable habitat. If there are ponds on site then Great Crested Newt (*Triturus cristatus*) could be using these for breeding. Additionally, if breeding ponds are within 500 metres of the site (that are not isolated by unsuitable habitat or physical barriers), the species could potentially be using terrestrial habitat on the site.

A desktop survey was also conducted using the DEFRA MAGIC Map, to determine if there are any known/historic Great Crested Newt breeding ponds or applications for EPS Licences in the local area.

4.5 Reptiles

The site was assessed for reptiles, with particular attention paid to those features that provide suitable basking areas (*e.g.* south-facing slopes), hibernation sites (*e.g.* banks, walls, piles of rotting vegetation) and opportunities for foraging (rough grassland and scrub).

5 Results

The following results are based on the habitats found during the preliminary ecological assessment and the ability of the surrounding area to support certain species.

5.1 Bats

Bats are known to use the area due to recorded sightings due to surveys conducted within the local vicinity. There have also been five EPS Licence applications within a 1km radius of the site.

The trees within the site boundary all fall into Category 3 of the Bat Survey Good Practice Guidelines, consequently further surveys of the trees in relation to bats is not necessary. Whilst bats may use the gardens in the area for foraging, the scale of the development would not have an adverse impact on local foraging opportunities. The Initial Bat Assessment of the house within the site, found it had very low potential to support roosting bats.

5.2 Biodiversity Action Plan Species

The site provided some habitat for the West European Hedgehog (*Erinaceus europaeus*). There are piles of old leaf litter, there is a moderate level of structural under storey and there is a gap large enough under the wooden shed to allow a hedgehog to fit underneath it. Consequently, there are several areas within the site which provide suitable habitat for foraging, nesting and hibernating. There are also numerous gaps in the fences surrounding the property and signs of mammal tracks between the site and neighbouring gardens (Figure 10). During the survey, two piles of hedgehog droppings were found close to the shed, confirming that they at least pass through the garden.



Figure 10 – Tracks between the site and neighbouring garden indicating use by small mammals

5.3 Breeding birds

Due to human/dog disturbance and lack of suitable habitat within the site, the likelihood of ground nesting birds is very low here. However, there is evidence of previous nests within the trees and the trees, shrubs and scrub provide canopy coverage and structural protection. Consequently, nesting birds need to be taken into consideration. Generally, timing of works will need to avoid disturbance during the nesting and breeding period (March – August) and additionally, the development will need to consider opportunities to compensate for lost bird breeding habitat.

5.4 Great crested newt

There are no ponds suitable for Great Crested Newts within the site, and whilst aerial images show a number of waterbodies within 500m of the site, the highly urbanised area, severely reduces the connectivity between suitable areas and thus, the likelihood that newts could safely travel this distance to reach the site. There are no ponds within the 250m radius required for urban areas and the lack of suitable terrestrial habitat within the site make it highly unlikely that the site will be used by Great Crested Newts.

5.5 Reptiles

The habitats within the site boundaries provide no areas suitable for use by reptiles. The trees ensure the area is in constant shade and the bare-ground beneath the trees provides no suitable basking or foraging areas. The site is also highly urbanised and as such makes the area in general much less suitable.

6 Constraints/limitations

A preliminary ecological assessment, such as this, is only able to act like a 'snapshot' to record any flora or fauna that is present at the time of the survey. It is therefore possible that some species may not have been present during the survey, but may be evident at other times of the year. For this reason, habitats are assessed for their potential to support some species, even where no direct evidence (such as droppings) has been found.

7 Conclusions

The site is small in size and whilst there are several tree, shrub and scrub species, the areas of good under-storey habitats are too small for regular use by the majority of protected species.

7.1 Bats

The property within the site has very low potential to support roosting bats and the planned development will not have a negative impact on local bat populations. Consequently no further survey effort is currently required.

7.2 Biodiversity Action Plan Species

The National Biodiversity Network (NBN) shows that there are records for West European Hedgehog within 1km of the site. There is evidence of hedgehogs using the garden for at least foraging, and some areas that could provide suitable conditions for nesting and hibernation. Consequently, precautions should be taken to ensure that no individuals are harmed. Details are given in Section 8.1.

7.3 Breeding Birds

There is suitable habitat for birds within the site, however, the numbers of birds that are using the site are likely to be small and therefore the long-term impacts on populations would not be significant. Further survey for breeding birds is not considered necessary, however, precautions (outlined in Section 8.2) must be taken so as not to damage or destroy nests.

7.4 Great Crested Newts

There are no records (NBN) or EPS Licence applications for Great Crested Newt in this area. Though there are some ponds within 500m, the highly urbanised area makes travelling this distance unlikely. There are no ponds within a 250m radius there is almost no suitable terrestrial habitat on the site. As a precaution, certain steps can be taken to ensure that no individuals of this species are harmed during development (outlined in Section 8.1), but they are not essential and no further surveys are required.

7.5 Reptiles

As with GCN, there are no records of reptiles in the local area. The lack of suitable habitat and connectivity with the wider landscape means the use of the site by reptiles is highly unlikely. As a result no further survey effort is required. The only area where care may be needed is in the piles of garden waste, as it could be used by Slow Worms (*Anguis fragilis*). However, steps to prevent disturbance of hedgehogs will also ensure no harm will come to these animals if present.

7.6 Stag Beetles

Whilst, there were no areas within the garden, that appeared to have habitat suitable for Stag beetles to breed (good amounts of well rotting wood), upon researching the other species, it was noted that there have been 28 reports of Stag Beetles within a 1km radius. Consequently, I will include some information in Section 8.3, so that if any larvae are found whilst clearing the garden, precautions can be taken.

8 Precautionary Method Statement

Prior to the start of works all contractors will be required to read this PWMS and acknowledge that this has been completed and the information understood. Should any contractor be unclear on any of the issues the ecologist should be contacted immediately.

8.1 Hedgehogs, Reptiles and Great Crested Newts

There are no obvious and immediate implications for reptiles and amphibians, however a cautious approach should be adopted to minimize disturbance. If any animals are found, work must cease immediately and mitigation measures must be undertaken. This must be carried out on the advice of a suitably qualified ecologist.

- Prior to the clearance of any potential reptile, amphibian and mammal refuge sites (including any rubble, sheeting, mud and leaf/vegetation piles, wooden sheds), new habitat/hibernaculum piles will be created away from any new buildings/works and within the shrubs or scrub. This can be created at any time of year and would provide potential refuge sites on which any animals found during clearance works can be placed.
- Any piles of vegetation due to be removed from the site should also be checked carefully for Hedgehogs during the destructive search of habitat piles.
- Where green waste piles, debris or other features on site, that may be used by any of the above mentioned species, are to be removed, a 'destructive search' approach will be used. This requires the gradual and careful (no forks or machinery) removal of the feature with on-going inspection for great crested newts, other amphibians, slow-worms and hedgehogs. The materials would be removed from the development site and re-stacked elsewhere as required.
- Clearance of any potential refuges should ideally be undertaken between mid-march and mid-June on a warm (above 13°C), dry day with little wind. In this way, the majority of amphibians would be in breeding ponds and therefore would be less likely to be in terrestrial refuges where they may be at risk of harm.
- Should any great crested newts, other amphibians, widespread reptiles or any other animals be found, the ecologist should be contacted so they can be removed and placed in a safe area;
- Trenches, pits or holes dug on site that are to be left over night will be covered over or have a ramp placed in them so that any wildlife that falls in can climb out safely;

- In the unlikely event that significant numbers of amphibians or reptiles were discovered, works would need to stop until the situation has been further assessed, and if necessary, a mitigation strategy developed and an application made for a site licence.
- Once all works are complete, hedgehog highways should be created, by simply leaving suitably size gaps in the fences between the site and adjoining gardens.

8.2 Breeding Birds

- The timing of vegetation clearance and building demolition will be sensitive to nesting birds. If possible, it is proposed that operations within the working area would preferably be started outside of the breeding season (March –August) to minimise the risk of disturbance to breeding birds that have already commenced nesting.
- If demolition and clearance works are performed during the period MarchAugust a detailed inspection of the buildings and ground clearance areas should be made by the consulting ecologist (SQE) to ensure no nesting birds will be disturbed.
- Once the demolition and clearance works commences birds are unlikely to start nesting within the working areas. However, in order to avoid accidental harm to nesting birds, a 10m buffer zone will be marked around any nest using high visibility fencing to ensure that the nest is not disturbed, damaged or destroyed whilst in use.
- If any ground nesting birds are found to be nesting within or close to the working areas during the pre-inspection survey or clearance, a 15m standoff from the nest will be marked out and observed, within which no operational activity would be permitted until the breeding attempt had concluded

8.3 Stag Beetles (Precautionary Information)

- Stag beetles are legally protected in the UK. They are classed as a ‘priority species’, listed on Schedule 5 of the Wildlife and Countryside Act 1981. If stag beetles or their larvae are thought to be present at a site where an application for planning has been submitted, and are likely to be disturbed or destroyed whilst work is carried out at the site, it’s recommended that someone with an understanding of the insects’ requirements be present to see that any larvae or adults are carefully translocated to a suitable natural or purpose-built habitat close by.
- Stag beetles are relatively widespread in southern England and live in the Severn valley and coastal areas of the southwest. Elsewhere in Britain they are extremely rare or even extinct.
- Female stag beetles prefer light soils which are easier to dig down into and lay their eggs. Newly emerging adults also have to dig their way up through the soil to reach the surface, therefore areas like the North and South Downs, which are chalky, have very few stag beetles. They also

prefer areas which have the highest average air temperatures and lowest rainfall throughout the year.

- Male beetles appear to have huge antlers. They are actually over-sized mandibles, used in courtship displays and to wrestle other male beetles. Adult males vary in size from 35mm – 75mm long and tend to be seen flying at dusk in the summer looking for a mate.
- Female beetles are smaller at between 30-50mm long, with smaller mandibles. They are often seen on the ground looking for somewhere to lay their eggs.
- The beetle most often mistaken for a female stag beetle is the lesser stag beetle. However, lesser stags are black all over with matt wing cases, while female stag beetles have shiny brown wing cases. Lesser stag beetles tend to have a much squarer overall look.



A fully-grown stag beetle larva (grub) can be up to 110mm long. They're fairly smooth skinned, have orange head and legs and brown jaws. They are nearly always found below ground and can be as deep as half a metre down.



9 Contingency Plan

In the unlikely event that any of the species mentioned in this report are found during completion of the proposed works, all work must stop immediately and advice sought from Dr Stacey Dawn Waring (contact details can be found at the beginning of this report) or another suitably qualified ecologist.

10 References

Bat Surveys Good practice Guidelines – Bat Conservation Trust 2016

Bat Workers Manual – Mitchell-Jones & McLeish 2004

Bat Mitigation Guidelines – Natural England 2006

The Conservation and Habitat Regulations 2017

Beebee, T. & Griffith, R. (2000) Amphibians and Reptiles. HarperCollins, London.

IEEM (2016) Guidelines for Preliminary Ecological Appraisal (CIEEM <http://www.cieem.net/>)

Joint Nature Conservation Committee JNCC (2016). Handbook for Phase 1 Habitat survey: a technique for environmental audit (revised reprint). Joint Nature Conservation Committee, Peterborough.

Langton, T. Beckett, C. and Foster, J. (2001). Great Crested Newt Conservation Handbook. Froglife.