



Preliminary Ecological Appraisal

Land at rear of 27-43 Blenheim Road
Caversham, Reading

Ref: FA18001

July 2018

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Caversham, Reading RG4 7RT

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Prepared by:

Mike Bird

With field data provided by Richard Mould-Ryan and Lisa Malter

Calyx Environmental Ltd

July 2018

Registered Office: Unit 11, Hove Business Centre, Fonthill Road, Hove, East Sussex, BN3 6HA

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Summary

This report is based on the findings of an extended phase 1 ecology survey undertaken on 12 June 2018.

Generally, in its context the biodiversity value of the site is low-moderate, being secondary deciduous woodland bordered by large mature domestic gardens on all sides. There are two structures on site: a partially collapsed brick outbuilding with no roof and a wooden shed with a roof panel missing. Both have the potential to support nesting birds, and the wooden shed could be used as a night roost or feeding perch for bats. There are two trees with bat roost potential, one just outside of the site boundary and one within the site boundary which is proposed and recommended to be retained. Further inspection of potential bat roost features with an endoscope is recommended.

Precautionary ecological supervision is recommended for dismantling of features such as sheds, piles of rubble, dense vegetation and corrugated metal which may shelter protected species, which should be carried out during specific periods to avoid impacts on those species. A specialist contractor is recommended to eradicate invasive non-native species.

Mitigation of impacts and possible enhancement of biodiversity can be achieved at this site using bat, bird and hedgehog nest boxes and landscaping with native plants.

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1.0 Introduction

- 1.1 Calyx Environmental Ltd was instructed on 14 March by Key Land Estates to carry out a preliminary ecological assessment to support planning proposals for development of five residential houses at the land to the rear of 27 to 43 Blenheim Road, Caversham, Reading RG4 7RT.
- 1.2 Specific objectives were to identify the habitats present and the potential for species that are legally protected or of conservation concern to be present, assessing any resulting constraints to the proposals and recommending any further surveys, mitigation or compensation measures as appropriate.
- 1.3 Impacts on biodiversity from development proposals are covered by policy 118 within the National Planning Policy Framework, which requires that local planning authorities, when determining planning applications, should aim to conserve and enhance biodiversity by refusing permission if significant harm cannot be avoided, adequately mitigated, or, as a last resort, compensated for. Under the Natural Environment and Rural Communities Act 2006, local planning authorities, in applying this policy must have regard to habitats and species that are listed under Section 41 of the Act as being of principal importance in England.
- 1.4 The Reading Borough Council planning Core Strategy policy CS36 states that “Development should retain, protect and incorporate features of biodiversity or geological interest (including protected species and their habitats) found within the application site into their schemes.” Policy CS38 of the core strategy states that “The nature conservation and landscape value of woodlands will be protected and their quality enhanced, wherever possible.”
- 1.5 European protected species (which includes all bats, dormice and great crested newts as well as species with a more restricted range) are fully protected under The Conservation of Habitats and Species Regulations 2017 as well as Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Collectively, these pieces of legislation protect the animals from deliberate/intentional killing or injury, and make it an offence to damage, destroy or obstruct access to a breeding sites, or place of rest, shelter or protection. In addition, the Wildlife and Countryside Act prohibits disturbance of the animals whilst occupying places of shelter or protection and the Habitats Regulations make it an offence to disturb European species in such a way that it is likely to impair their survival, reproduction, including caring for young, hibernation, migration or significantly affect their local distribution or abundance. The Wildlife and Countryside Act also protects active birds’ nests and certain bird species (Schedule 1) from disturbance whilst near or on a nest and all species of reptile are also protected against deliberate killing or injury.
- 1.6 The Protection of Badgers Act 1992 makes various activities associated with persecution an offence. Of relevance to development, the Act prohibits damage or destruction of setts, obstruction of access to a sett or disturbance of badgers whilst occupying a sett. A sett is defined in the Act as any structure or place which displays signs indicating current use by a badger.

2.0 Methodology

- 2.1 A preliminary site survey (using an extended phase 1 habitat approach) was undertaken by Richard Mould-Ryan and Lisa Malter on 12 June 2018 (see Appendix 1 for details of qualifications and experience). A habitat plan with target notes is included at Appendix 2 and photographs are included at Appendix 3. A further site visit was undertaken by Mike Bird on 28 June 2018 to undertake additional assessment of bat roost potential.
- 2.2 In addition to the extended phase 1 survey, a desktop search for nature conservation designations was made using the government's online Multi-agency Geographic Information System at: <http://www.magic.gov.uk/>. Ordnance Survey 1:25,000 mapping and aerial imagery from Google maps and Google Earth was used to check for the presence of ponds and other water bodies in order to assess great crested newt potential. Records were not obtained from Thames Valley Environmental Records Centre as the zone of influence of the proposals will be restricted to the site and boundaries, a thorough survey of the site was possible, and it is unlikely that the record centre would hold data for this private site or surrounding private gardens. Therefore, it is not considered that a search would add significant value to the assessment. This decision was taken having due regard to best practice guidance on data searches (CIEEM, 2016a).

3.0 Limitations and Constraints.

- 3.1 Due to the fact that trees and site conditions change over time, the survey on which this report is based will gradually become out of date. Therefore, this report should not be relied upon for planning decisions after 24 months from the relevant survey dates or following significant site changes, unless the assessment and recommendations are verified by an update-survey.

No access was gained to the adjacent properties. However, see specific considerations under Section 4, Protected / Notable Species Potential.

4.0 Results

- 4.1 The site is approximately 0.2ha in size and located at the rear of 27 to 43 Blenheim Road, Caversham, Reading RG4 7RT. The surrounding area comprises residential properties (mostly semi-detached two storey houses) and most have reasonable sized gardens with mature trees and shrubs. There are several areas of green space in the locality and the site is located approximately 600m from the Thames River. However the site and surrounding gardens are isolated from the wider landscape by houses and roads. The OS grid reference is SU710753. The approximate site boundaries are shown in Figure 1 below.

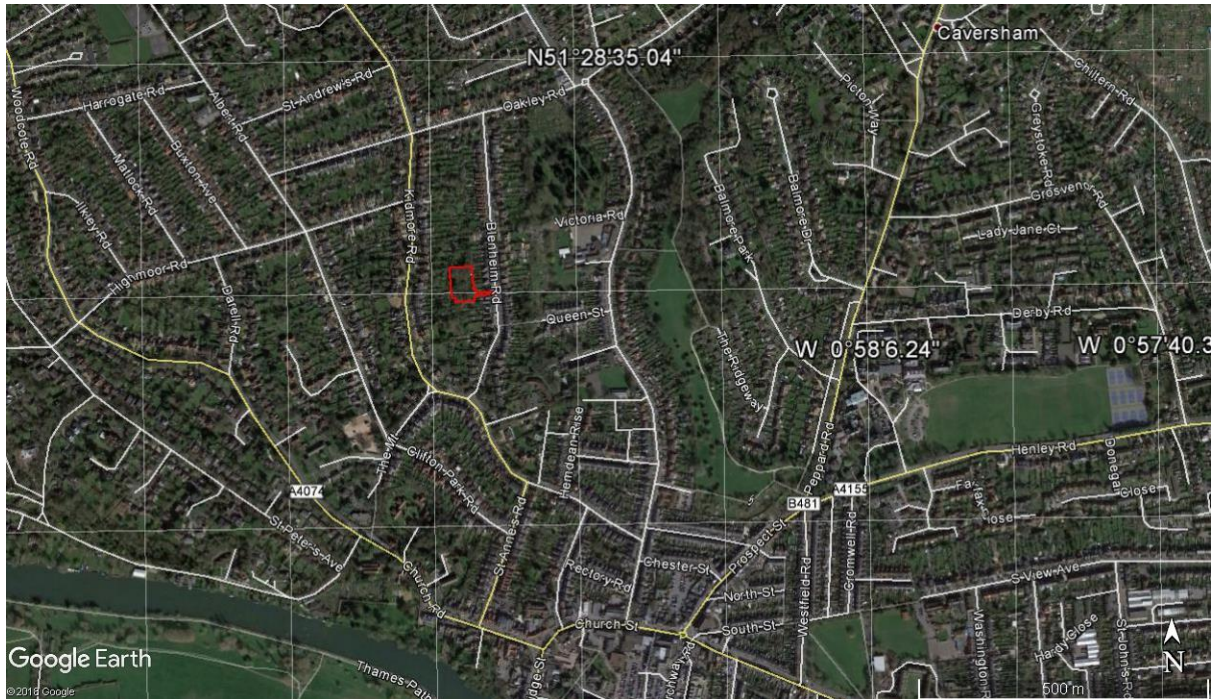


Figure 1: site and context ©2018 Google (imagery date 3/25/2017).

Designated Sites

- 4.2 The property is not within or adjacent to a designated nature conservation site. The nearest European protected sites (Thames Basin Heaths SPA and SAC) are 18km away, so no significant effects from this proposal are considered likely at this range.
- 4.3 There are two nationally designated sites within 7 km of the property. These are Harpsden Wood SSSI at 6890 m and Sulham and Tidmarsh Woods and Meadows SSSI at 6826 m. These are also considered to be sufficiently distant for any significant indirect effects to be avoided. Residential use does not fall within any of the categories listed within the impact risk zones identified by Natural England for these sites.
- 4.4 The nearest designated Local Nature Reserve sites are shown in Table 1 below. They are each separated from the property by either a road, a railway line or the River Thames and no significant impacts from development of the property on these sites is deemed likely.

Table 1:	
Clayfield Copse	1959 m, across roads
Round Copse	3302 m, across Thames and railway
Lousehill Copse	3335 m, across Thames and railway
Highwood	4603 m, across motorway and railway

- 4.5 Caversham cemetery is a designated local wildlife site, which is located approximately 134 m from the site, across Blenheim Road.

Habitats

- 4.6 The predominant habitat on the site is recent secondary semi-natural woodland, with sycamore comprising the main canopy species, with an oak and birch on the boundary, contributing to the canopy plus some ash and Leyland cypress trees. Most of the trees are maturing rather than mature. It is understood from the agent (*pers comm*) that the site was cleared circa 20 years ago and this would correspond to the age of most of the trees other than a few older trees on the boundaries. There are patches within the site that have a shrub layer comprising hazel, which is multi-stemmed, indicating that they have been previously cut down and they now form a coppice. There are patches of bramble *Rubus fruticosus agg*, and a small component of holly *Ilex aquifolium* and there are patches of woodland field layer species including wood avens *Geum urbanum*, herb Robert *Geranium robertianum*, wood sedge *Carex sylvatica*, pendulous sedge *Carex pendula*, and male fern *Dryopteris filix-mas*, and ivy *Hedera helix*, but also significant open areas dominated by vegetation more typical of disturbed ground, including nettle *Urtica dioica*, ground elder *Aegopodium podagraria*, broadleaved dock *Rumex obtusifolius*, cleavers *Galium aparine*, green alkanet *Pentaglottis sempervirens*, garlic mustard *Allaria petiolate*. Dog rose *Rosa canina* and field rose *Rosa arvensis* are also present. There are also significant areas dominated by invasive cherry laurel at the southern end of the site, which is typically suppressing any other plant growth and also patches of Wilson's honeysuckle *Lonicera nitida* and Virginia creeper *Parthenocissus quinquefolia* which are highly invasive non-native species are present.
- 4.7 The site contains a significant amount of fly-tipped rubbish and piles of rubble, soil from adjacent gardens, creating areas of bare ground, and green garden waste from adjacent properties, which appears to be an ongoing problem with fresh waste in evidence as well as the presence of non-native invasive species noted above.
- 4.8 The remains of a brick building, with some dilapidated walls but no roof and partly smothered by ivy and other climbers, is present near the northeast boundary of the site (TN1 – see Appendix 2). A single-skinned wooden shed, in poor condition with gaps in walls and over a poorly fitting door and a corrugated metal roof is present between the main site and the access strip to the east (TN7 – see Appendix 2).

Protected / Notable Species Potential

- 4.9 The recent secondary woodland within the site is a common widespread habitat type that lacks the age, historical continuity or presence of deadwood habitat likely to support rare or otherwise notable invertebrates, fungi or lichens. None of the plants are protected, rare or otherwise of conservation concern.
- 4.10 This habitat type (in general) has the potential to support great crested newts, dormice, bats, badgers, breeding birds and reptiles and therefore consideration was given to these taxa in respect of this particular site as reported below.

Great crested newts

- 4.11 No suitable water bodies for breeding great crested newts are present within the site. The desk study did not reveal the presence of any waterbodies within 250m of the site¹. Whilst neighbouring gardens were not accessed to check for ponds, none could be seen from the site and it is unlikely that any small garden ponds present would support a breeding population of the species without being connected to larger more suitable waterbodies, which would be visible on mapping or in aerial images. Given this and the isolation of the site and surrounding gardens from the wider landscape by roads, the likelihood of the species using the site for terrestrial use is considered highly unlikely and no further surveys are recommended.

Dormice

- 4.12 Whilst the site contains some suitable tree and shrub species to support dormice, the site is very small at circa 0.2ha, which on its own would not be sufficient to support a population and it is isolated from other suitable habitat, within a built-up area with too many roads for there to be sufficient connectivity. Incidentally, a sample of hazel nuts was examined, with none showing evidence of opening by dormice. However, this alone is not sufficient evidence of absence. It is the small site size and its isolation from more suitable habitat, that are the main factors that have been considered and, on this basis, it is considered highly unlikely that the species would be present, and no further surveys are recommended.

Bats

- 4.13 There is a tree (TN4, tree survey T5-B2) in an adjacent garden with a bat box outside the site boundary and facing away from the site. Whilst this offers roosting potential, given the relatively low occupancy rates for bat boxes, the likelihood is considered to be no more than moderate.
- 4.14 A sycamore (TN6, tree survey T2-C1) just inside the site boundary has heavy ivy growth including larger stems which could conceivably be used as an ad hoc roost by a lone male / non-breeding female bat, but the potential is assessed to be low.
- 4.15 The other trees on site were assessed to have negligible potential for bat roosting.
- 4.16 The brick outbuilding at the northeast corner of the site (TN1) was assessed to offer low bat roost potential given the presence of gaps between bricks in the remaining sections of wall. The presence of climbing plants and surrounding vegetation would limit observation of any emerging bats during a standard emergence survey and therefore a thorough inspection of suitable gaps in the brick work was undertaken during a follow-up survey using an

¹ Research (English Nature, 2004) by English Nature (Natural England's predecessor) recommends that mitigation in the form of capturing and relocating / translocating newts from development sites at distances greater than 200-250m will hardly ever be appropriate given the low likelihood of them being encountered beyond this range.

endoscope on 28 June 2018 as an alternative to the single emergence survey recommended for low potential buildings in Collins (2016). No bats or evidence of bat use was found. No further surveys are recommended, but precautionary measures during demolition are recommended (See Section 6).

- 4.17 The wooden shed (TN7) was assessed to have negligible potential for day roosting bats due to lack of any voids or crevices. Potentially, such structures could be used as a night roosts or feeding perches for bats. However, these are typically indicated by feeding remains and droppings (brown long-eared bats for examples, which would be the mostly likely species to use the structure on this site, characteristically leave piles of moth wings below feeding perches). No feeding remains or droppings could be found despite a thorough search. Therefore, no further surveys are recommended.
- 4.18 In terms of foraging, the site is likely to support species that are widespread and common in built up areas including common and soprano pipistrelles and brown long-eared bats. The small size of the site, limited habitat and plant diversity and subsequent ability to support a diversity of prey species, lack of water, and the presence of surrounding houses and lit streets means that the site can only be considered to have relatively low bat foraging value and is highly unlikely to be important for rarer species. Therefore, no activity surveys are considered to be appropriate.

Badgers

- 4.19 No evidence of badgers using this site was found and there was an absence of animal excavations, tracks, foraging signs, droppings, or latrines. A small area of wire fencing that had been dug under by an animal was observed on the western border of the site connecting to a residential garden, but no caught hairs indicative of badger were noted. Whilst surrounding land was not accessed, given that this comprises residential gardens, subject to greater disturbance and offering less cover than the site and given the lack of any field signs within the site (which is highly likely to be used by the species if setts were nearby), it is considered highly unlikely that there are any badger setts close enough to the site to be damaged by the proposals or for badgers to be disturbed within setts. Therefore, no further surveys are recommended at this stage. However, as badgers are highly mobile species and new setts can be dug in new areas very rapidly, further checks should be made prior to any site clearance or construction (See Section 6).

Birds

- 4.20 The shed (TN7) has an old bird's nest from current or previous season and the dilapidated brick structure (TN1) has the potential to provide nesting sites as do all of the trees and shrubs and an open-fronted bird nest box was found at TN5. Low numbers of birds were heard singing including blackcap *Sylvia atricapilla*, wood pigeon *Columba palumbus*, robin *Erithacus rubecula*, blue tit *Cyanistes caeruleus* and song thrush *Turdus philomelos* (UK BAP, BOCC, and Red List). The site is surrounded by mature gardens which also provide suitable habitat for these species.

Reptiles

- 4.21 The site contains little suitable reptile habitat and no reptiles were discovered during either of the site visits. There are three possible areas that could potentially be used as refuges or hibernation sites for common reptiles using adjacent gardens (TN3, TN8 and TN9), but these would potentially hold only low numbers and are not considered to be significant in conserving local reptile populations. Basic precautions are recommended to ensure compliance with legal requirements before any site clearance (see Section 6).

Other notable species

- 4.22 Common toads (UK BAP) could potentially use the features at TN1 and TN2 as hibernacula and therefore precautions are recommended prior to site clearance (see Section 6). Dismantling these features should be done under precautionary ecological supervision between September and October.
- 4.23 Hedgehogs (UK BAP) could potentially use areas of dense ground vegetation as hibernation sites and they could forage within the site (although the home range of this species is very extensive, and the site would form only a very small proportion of this). Precautionary measures and mitigation are recommended in Section 6.

5.0 Assessment

- 5.1 The proposal will involve the loss of less than 0.2ha of young recent secondary woodland dominated by non-native sycamore with a very limited diversity of woodland flora, lacking in aged / veteran trees, deadwood and colonised by non-native invasive species. Review of historic mapping (OS County Series 1882) shows that prior to housing, the land was open agricultural land with no evidence of woodland or obvious hedgerows through the site.
- 5.2 In terms of planning policies, the NPPF 118 requires that development proposals avoid, adequately mitigate or, as a last resort, compensate for any significant harm to biodiversity and, in particular includes a presumption that planning consent should be refused if it would result in the loss or deterioration of irreplaceable habitats, with ancient woodland being specifically mentioned. As this is very recent woodland not ancient and, in principle, could be replaced, compliance with this policy therefore revolves around whether there would be any significant harm to biodiversity that cannot be avoided, adequately mitigated or, as a last resort, compensated for. In addition, Reading Borough Council Core Strategy policy CS36 states that "Development should retain, protect and incorporate features of biodiversity interest and CS38 state that "The nature conservation and landscape value of woodlands will be protected and their quality enhanced, wherever possible". Therefore, the degree of biodiversity interest and nature conservation value of the woodland is also pertinent to determining the significance of these policies.
- 5.3 The NPPF requires that local planning policies identify and map local ecological networks, including designated sites, corridors and stepping stones and, accordingly, Policy DM17

within the adopted Sites and Detailed Policies document states that green links, as shown on the proposals map², “shall be maintained, protected, consolidated, extended and enhanced”. A check of the proposals map was made in preparing this report and this site was not shown as forming a component of such a network.

- 5.4 In determining if a development proposal might harm biodiversity, local planning authorities must have regard to the list of habitats of principle importance in England, as listed under Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006. This includes a broad habitat type of Lowland Mixed Deciduous Woodland.
- 5.5 The definition of Lowland Mixed Deciduous Woodland given in Maddock (2008) is vague, but it potentially covers a very wide spectrum of woodland types. Certainly, the definition includes recent secondary semi-natural woodland (which simply means woodland that has developed on previously cultivated land since 1600 and therefore can include some long established high value woodlands), but the description of the definition in Maddock states “many are ancient woods” and reference is made to community and stand types that are comprised mainly of native species (although these may contain non-native tree species). Therefore, there must be some doubt whether the definition is intended to cover young sycamore woodlands on recently abandoned sites such as this one.
- 5.6 Even where woodland does clearly fit within the definition of Lowland Mixed Deciduous Woodland, given the wide spectrum of woodland types covered, the relative conservation value of the woodland needs to be considered in order to properly have regard to it as required under the NERC Act. Only then can it be considered whether the loss of such woodland would cause significant harm to biodiversity conservation and appropriate weight be given when determining a planning application. It should be noted that the NPPF does to state that all loss of Section 41 habitats must be avoided, just that significant harm to biodiversity should be avoided, adequately mitigated or, as a last resort compensated for. The exception to this is where such habitat is effectively irreplaceable (eg. ancient or very old woodland).
- 5.7 Best practice advice on evaluating the importance of habitats and other features of biodiversity interest is given in CIEEM Guidelines on Ecological Impact Assessment (CIEEM, 2016b), which advises that importance of an ecological feature should be considered within a defined geographical context, ranging from international to local. On this basis, the woodland on site is considered to be only of value within the local neighbourhood.
- 5.8 Other factors to be used in evaluation, as set out in the guidance, include naturalness, habitat diversity, habitat connectivity, value to species of conservation concern, whether there are rich assemblages of flora or fauna present, presence of plant communities or associated fauna that are typical of valued natural / semi-natural vegetation types. In addition, size and age of habitat are well-established factors strongly correlated with the biodiversity of an area of habitat. On these criteria, the site is assessed to be only of low value: it has low naturalness, being dominated by non-native sycamore, with non-native

² <http://reading.addressscafe.com/app/exploreit/default.aspx>

invasive shrubs present. Habitat diversity is very poor, both in terms of species, structure and lack of deadwood habitat to support fungi and invertebrates. There is some connectivity for mobile species able to use tree canopies to move through the landscape, but connectivity is poor for land-based woodland specialists that would have difficulty moving through an urban landscape of roads, gardens and fences. Potential for species of conservation concern is limited (see previous section) and there are certainly no rich assemblages of flora or fauna present or those typical of valued natural / semi-natural vegetation types. The size of the site is very small at under 0.2ha and the woodland is of a very young age. Based on above assessment, the woodland habitat within the site is considered to be only of low value with no substantive wildlife conservation importance.

- 5.9 As the site is surrounded by existing residential development, this further limits its value due to pressure, as evidenced from fly-tipping and disturbance to wildlife from noise and lighting.
- 5.10 It is also important to consider likely future baseline conditions in the absence of the project. There is currently no management of the woodland and little prospect of future management (as it has no economic value for timber, offers little in the way of suitable produce for small-scale sustainable woodland industries and, given its relatively low conservation value, location and access, it is highly unlikely that there would be a willingness by a nature conservation organisation to manage it for wildlife. In the absence of management, the cherry laurel and other non-native invasive plants are liable to colonise more of the site shading out any woodland flora. The cherry laurel, in particular, is likely to outcompete the hazel and become the dominant shrub species. The canopy layer is liable to become dominated by a small number of sycamore trees as they mature and increase in size. Therefore, under current conditions, this relatively low-value habitat can be expected to deteriorate into a stand of sycamore trees with non-native understorey, dominated by cherry laurel and supporting little else.
- 5.11 The proposal would involve the loss of most of this habitat and therefore there would be a minor reduction at the local level on this common habitat type, but given that such woodland is widespread and there are efforts by the government to increase the creation of new woodland³, no overall net loss of habitat and no significant impact on the conservation of species reliant upon woodland habitat would be expected.
- 5.12 Whilst development of the site inevitably limits the space for habitat, the mature boundary trees on the southwest corner would be retained along with some of the trees and shrubs along the northern boundary. Provision of nest boxes for birds, incorporation of integral bat boxes into new houses and provision for insect habitat and hibernacula, in conjunction with appropriate landscape planting to encourage invertebrates, with subsequent benefits for other species within the food web would help compensate for any localised impact on the species likely to be using the current habitat and in the long term provide a managed habitat that is more diverse than the current habitat is likely to become in the absence of

³ <https://www.gov.uk/government/news/tree-champion-to-expand-englands-woodland>

management, under which conditions, non-native invasive plants would be expected to dominate.

- 5.13 In terms of impacts on species, no significant harm to the conservation of protected or otherwise notable species is considered likely at the population level. The tree with a bat box is on neighbouring property will be retained and the box faces away from the site towards an existing property, so no significant impacts are likely if the box is used. Adequate mitigation or precautionary measures to ensure compliance with legal requirements, which apply to individual animals, would be necessary for some species (see next section).

6.0 Recommendations

- 6.1 In order to compensate for the loss of the small area of low value woodland, landscaping proposals should incorporate a range of herbaceous and woody plants (native but also carefully selected non-native species) to provide a tiered complex structure to the landscaped and garden areas of ground cover, shrubs, climbers, hedges and trees and provide a range of nectar sources to attract insects.
- 6.2 To prevent further spread within this or other sites, or release into the wild, and ensure compliance with legal requirements, non-native species must be carefully removed and disposed of under a method statement (which could be secured as a condition of planning consent).
- 6.3 In order to avoid impacts on nesting birds and ensure compliance with legal requirements, tree felling / vegetation clearance should take place between 1 September and end of February (outside of the main bird nesting season). The open fronted nest box should either be removed during this period or only after it has been checked by a wildlife specialist and found to be free of any active nests. The shed should be demolished outside of the nesting season unless it has first been checked by an experienced wildlife specialist, and found to be free of any nests.
- 6.4 Whilst the likelihood of it being used by bats is considered to be very low, demolition of the remaining walls of the dilapidated brick building should be undertaken under the supervision of wildlife specialist with a further endoscope check by a an appropriately licenced bat specialist prior to works commencing. The structure and climbing plants must be thoroughly checked for any signs of bird nesting if this is within the nesting season.
- 6.5 Rubbish, including piles of brash and other plant matter and rubble piles should ideally be removed between April and the end of September to avoid any risk of disturbing hibernating / torpid animals, including reptiles, amphibians and hedgehogs that may be using them. If removal outside of this period is unavoidable, they should be removed under the supervision of a wildlife specialist after they have first checked for presence as far as possible.
- 6.6 A pre-works site check should be made by a wildlife specialist for any fresh signs of badger activity prior to any tree felling operations, site clearance or ground works.

- 6.7 The above precautionary measures could be incorporated into a single method statement, secured by a condition of planning consent.
- 6.8 Compensatory measures for the loss of habitat should be incorporated into the proposals, including bird nesting boxes, integral maintenance-free bat tubes within the proposed house which is nearest to the retained trees on the southwest boundary.
- 6.9 Landscape proposals should include herbaceous plants, shrubs and appropriately-sized tree species / varieties (native and carefully selected non-natives) to attract insects and provide food and nesting sites for birds and insect habitat boxes should be installed within gardens.
- 6.10 To maintain potential hibernation sites for hedgehogs, a hedgehog nest box should be installed within shrub planting or a hedge and to enable movement through the site, any solid fences should include holes (minimum 13 x 13cm) at ground level.
- 6.11 The above details can be included as a wildlife habitat compensation plan and/or incorporated into a landscape scheme, secured as a condition of planning consent.

References

Maddock, A (ed) 2008 -Updated 2011. *UK Biodiversity Action Plan Priority Habitat Descriptions*. BRIG UK Biodiversity Action Plan, <http://jncc.defra.gov.uk/page-5155>

CIEEM (2016a) *Guidelines for Assessing and Using Biodiversity Data*. Chartered Institute of Ecology and Environmental Management (CIEEM).

CIEEM (2016b) *Guidelines for Ecological Impact Assessment in the UK and Ireland— Terrestrial, Freshwater and Coastal*, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester

CIEEM (2017) *Guidelines for Preliminary Ecological Appraisal*, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester.

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

English Nature (2004) *An Assessment of the Efficiency of Capture Techniques and the value of different habitats for the great crested newt Triturus cristatus*, Report Number 576.

Reading Borough Council Adopted Core Strategy Document (2015) [available at: <http://www.reading.gov.uk/media/1046/Core-Strategy-Adopted-January-2008/pdf/Core-Strategy-Adopted-Jan08-Altered-Jan15.pdf>].

Appendix 1: Qualifications and Experience

Richard Mould-Ryan BSc, MCIEEM

Richard is a countryside manager and ecologist with a BSc in Geography and over 25 years' experience working for local authorities, now working on a freelance basis. He has experience of habitat management, evaluation of planning applications for impact on biodiversity including assessment of ecological surveys and reports, with training in survey methods for a wide range of species.

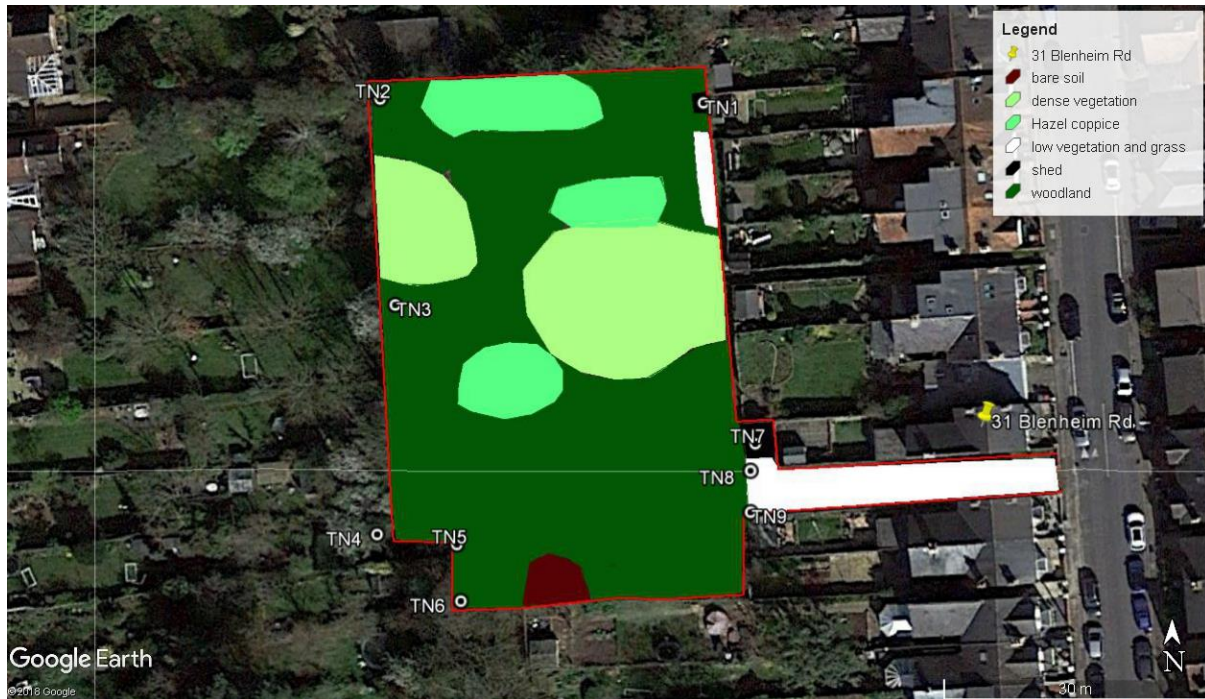
Lisa Malter BSc, MSc, MEd, Grad CIEEM

Lisa is an assistant ecologist who holds a BSc in Biological Sciences, an MSc in Species Identification and Survey Skills, and an MEd in Secondary Science Education. She has experience as a field ecologist surveying amphibians, badgers, bats, birds, dormice, insects, otters, reptiles, vegetation and water voles and as a research technician for Bournemouth University on tree condition and ground flora surveys in the New Forest.

Mike Bird BSc(Hons), MSc, MCIEEM

Mike is an experienced and qualified ecologist and arboriculturist, with over twenty-five years of experience in arboriculture and fifteen in ecology. He holds a BSc (Hons) in Environmental Land Management, an MSc in Ecology and Management of the Natural Environment and an HND in Arboriculture. He has worked in local authority planning both as a tree officer and as a biodiversity officer. Between 2008 and 2012 he was the Principal Officer in charge of the Trees and Ecology team at Basingstoke and Deane Borough Council. He left local government in early 2013 to start an environmental consultancy practice, which became incorporated as Calyx Environmental Ltd in August 2013. He specialises in advance bat survey techniques, radio tracking and tree climbing to find tree roosts and is registered under the class 4 survey licence to enable handling of bats, endoscope use, and capture with harp traps and acoustic lures.

Appendix 2: Habitat Plan, Vegetation List and Target Notes



Target Notes

TN1	Brick outbuilding partly collapsed, roof missing. Partly covered in ivy and Virginia creeper with fallen masonry, logs and branches. Shallow gaps in mortar between bricks on south and west external walls but heavily shaded. North and east external walls covered by climbing plants. Low bat roost potential, possible bird nesting site, possible herptile hibernaculum.
TN2	Pile of rubble approximately 4 x 3 m x 0.5 m high, in heavy shade. Many hazelnuts opened by wood mouse/bank vole/squirrels/birds beneath upper blocks. Possible herptile hibernaculum.
TN3	Large pile of vegetation tipped from adjacent garden. 3 x 5 m x 1 m high, quite recent, some woody. Low potential as herptile refuge.
TN4	Small wooden bat box on west side of large sycamore. Moderate bat roost potential.
TN5	Open-fronted wooden bird nest box on west side of large hazel.
TN6	Significant ivy growth on large sycamore (T2-C1) to be retained. Larger ivy stems on east side of trunk at c. 4 m height. Low potential bat roost feature.

TN7	Wooden shed covered in Virginia creeper with large gap above door. Corrugated metal roof with some gaps. One bird's nest from current or previous season. Only suitable for night roosting /feeding perch but no field signs to support this. Negligible potential for other roosts.
TN8	Corrugated metal sheet well bedded into vegetation on east facing bank in full sun, loose earth beneath. Possible refuge for common reptiles.
TN9	Collapsed corrugated iron bank revetment with space beneath. Possible reptile hibernaculum.

Vegetation

Genus	species	common name
<i>Aegopodium</i>	<i>podagraria</i>	ground elder
<i>Agrostis</i>	<i>stolonifera</i>	creeping bent
<i>Agrostis</i>	<i>capillaris</i>	common bent
<i>Allaria</i>	<i>petiolata</i>	garlic mustard
<i>Allium</i>	<i>ursinum</i>	ramsons
<i>Anthriscus</i>	<i>sylvestris</i>	cow parsley
<i>Arrhenatherum</i>	<i>eliatum</i>	false oat grass
<i>Arum</i>	<i>maculatum</i>	lords and ladies
<i>Buddleja</i>	<i>davidii</i>	buddleja
<i>Calystegia</i>	<i>sp</i>	bindweed
<i>Carex</i>	<i>sylvatica</i>	wood sedge
<i>Carex</i>	<i>pendula</i>	pendulous sedge
<i>Cirsium</i>	<i>vulgare</i>	spear thistle
<i>Dryopteris</i>	<i>felix-mas</i>	male fern
<i>Gallium</i>	<i>aparine</i>	cleavers
<i>Geranium</i>	<i>robertianum</i>	herb robert
<i>Geum</i>	<i>urbanum</i>	wood avens
<i>Hedera</i>	<i>helix</i>	ivy
<i>Ilex</i>	<i>aquifolium</i>	holly
<i>Lapsana</i>	<i>communis</i>	nipplewort
<i>Lonicera</i>	<i>nitida</i>	Wilson's honeysuckle
<i>Lonicera</i>	<i>periclymenum</i>	honeysuckle
<i>Parthenocissus</i>	<i>quinquefolia</i>	Virginia creeper

<i>Pentaglottis</i>	<i>sempervirens</i>	green alkanet
<i>Plantago</i>	<i>lanceolata</i>	ribwort plantain
<i>Poa</i>	<i>trivialis</i>	rough meadow grass
<i>Ranunculus</i>	<i>repens</i>	creeping buttercup
<i>Ribes</i>	<i>uva-crispa</i>	gooseberry
<i>Rosa</i>	<i>canina</i>	dog rose
<i>Rosa</i>	<i>arvensis</i>	field rose
<i>Rubus</i>	<i>fruticosus agg</i>	bramble
<i>Rumex</i>	<i>obtusifolius</i>	broad leaved dock
<i>Senecio</i>	<i>jacobaea</i>	ragwort
<i>Spirea</i>	<i>sp</i>	spirea
<i>Tanacetum</i>	<i>parthenium</i>	feverfew
<i>Urtica</i>	<i>dioica</i>	nettle
Trees		
<i>Acer</i>	<i>pseudoplatanus</i>	sycamore
<i>Corylus</i>	<i>avellana</i>	hazel
<i>Fraxinus</i>	<i>excelsior</i>	ash
<i>Prunus</i>	<i>laurocerasus</i>	cherry laurel
<i>Quercus</i>	<i>robur</i>	pedunculate oak
<i>Prunus</i>	<i>spinosa</i>	blackthorn
<i>Salix</i>	<i>caprea</i>	goat willow
<i>x Cupressocypar</i>	<i>leylandii</i>	Leyland cypress

Appendix 3: Photos



Photo 1: TN1 remains of brick building



Photo 2: TN1 gaps in bricks



Photo 3: TN2 showing woodland floor strewn with debris



Photo 4: TN3 garden waste dumped over the fence



Photo 5: TN4 bat box on sycamore outside site boundary



Photo 6: interior of site

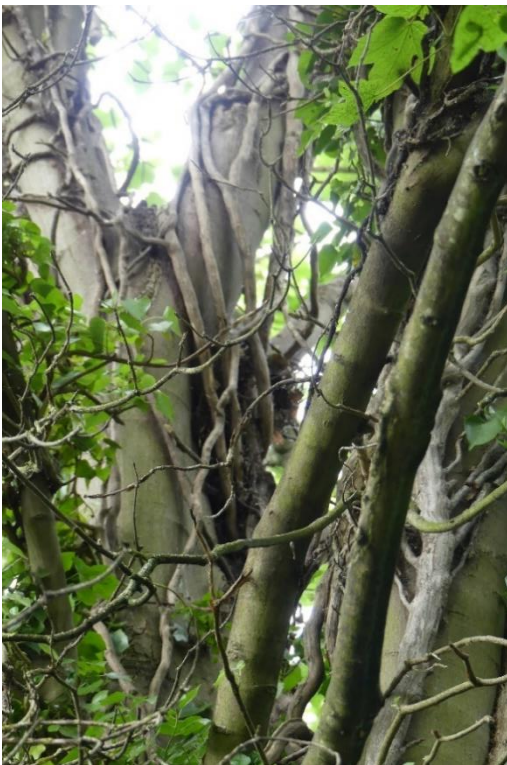


Photo 7: TN6 sycamore with mature ivy



Photo 8: bare ground a southern end of site with cherry laurel in top left corner



Photo 9: TN7 wooden shed and TN8 corrugated sheet (left foreground) covered in Virginia creeper



Photo 10: TN7 wooden shed interior with bird nest on right



Photo 11: TN9 collapsed corrugated iron revetment with ground elder



Photo 12: main area of hazels