

Ecological Appraisal



Proposed Residential Development, Lanes End, West Walberton Lane,
Walberton, West Sussex

September 2019

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Executive Summary

This ecological appraisal report details the potential ecological effects of the proposed residential development at Lanes end, Arundel Road, West Walberton.

The site comprises of a single dwelling house with large garden and mature oak trees on the boundaries. The site contains habitat suitable for nesting birds, and there is a low likelihood for other protected species (great crested newts, hazel dormice and bats) to be present. The habitats on the site are not considered to be of particular ecological value, although the oak trees are worthy of protection. Additional precautions are recommended to prevent impacts to other protected species should they be present.

The proposals would not result in the loss of any ecologically significant habitats, although they could result in harm to protected species should they be present, as well as the disturbance of nesting birds. Therefore measures are recommended to ensure they are not harmed during construction. The lighting for the new development should aim to reduce potential impacts to nocturnal wildlife.

The development presents opportunities for ecological enhancements in line with local and national planning policy and biodiversity targets. This should include planting fruit or seed bearing trees and shrubs, erecting bat boxes and creating habitat for stag beetles.

Notwithstanding the recommendations for additional surveys, provided the recommended mitigation measures, and at least some of the enhancement measures are implemented in full, this should successfully mitigate the potential ecological effects and consequently the development would comply with the relevant nature conservation legislation and planning policy.

1.0 Introduction

1.1 *Background*

This document details the ecological effects the proposed construction of a new residential development at Lanes End, Arundel Road, West Walberton (see Figure 1 for the site location). We are instructed to undertake an ecological survey of the site in order to provide information regarding the ecology of the site and inform plans for its development.

1.2 *Brief Description of the Proposed Works*

The proposed development entails the clearance of the site followed by the construction of six detached dwellings with associated gardens, access and communal landscaped areas.

1.3 *Scope*

This document aims to assess the likely ecological effects of the proposed development.

The scope of this Ecological Assessment is to:

- Identify any potential biophysical changes as a result of the proposed development.
- Identify and provide a valuation of features of ecological interest on a site (such as habitats and protected species) and recommend further surveys should they be necessary.
- Assess the likely ecological effects of the development against relevant legislation and policy.
- Recommend avoidance and/or mitigation measures that are likely to be required to reduce the ecological impact of the proposals.

If no further surveys are recommended, this report can serve as full assessment of the ecological effects of the development in support of any planning application.

1.4 *Legislation and Policy Context*

1.4.1 *Relevant Legislation*

The Wildlife & Countryside Act 1981 (as amended) (1) is the primary piece of legislation by which biodiversity in the UK is protected. The most relevant areas of the Act to development related activities are:

- The identification and subsequent protection of Sites of Special Scientific Interest (SSSIs), which prohibits damaging activities
- The protection of certain species listed in Schedule 5, which prohibits killing, injury, disturbance, damage and/or destruction of breeding sites and/or resting places and sale (it should be noted that all parts of this protection do not apply to all Scheduled species)
- The protection of wild birds and their nests, which prohibits damage or destruction of nests whilst in use.
- Measures to prevent the spread of invasive plant species.

The Conservation of Habitats and Species Regulations 2010 (known as the ‘Habitats Regulations’) (2), pass two EEC Directives into UK law. The Regulations protect sites and species deemed to be of conservation importance across Europe. The most relevant parts of the Regulations to development related activities are:

- The protection of Special Protection Areas (SPAs) and Special Areas of Conservation (SACs)
- The protection of species listed within Schedule 2 of the Regulations, which prohibits killing, injury, disturbance, damage and/or destruction of breeding sites and/or resting places and sale, this confers some level of habitat protection.

In order for activities that would be likely to result in a breach of species protection under the regulations to legally take place, a European Protected Species (EPS) mitigation licence must first be obtained from Natural England.

The Protection of Badgers Act 1992 (3), deals solely with the protection of badgers *Meles meles* in the UK. It prohibits killing, injuring or taking badgers, damaging, destroying or otherwise interfering with a badger sett, disturbing an occupied badger sett and sale of badgers.

The Natural Environment and Rural Communities (NERC) Act 2006 (4) requires that public bodies to have regard to the conservation of biodiversity. This means that Planning Authorities must consider biodiversity when reaching planning decisions. Section 41 of the act lists habitats and species that are conservation priorities in England.

1.4.2 *Planning Policy*

Government policy with respect to the protection of biodiversity is laid out in the National Planning Policy Framework (NPPF) (5). This places an onus on development to minimise impacts to biodiversity and where possible to provide net biodiversity gain. The NPPF provides guidance to Local Authorities in how to conserve and enhance biodiversity through local Planning Policies and when assessing planning applications.

At a local level, current planning policy within Arun District is contained within the *Arun District Adopted Local Plan* (6). This contains the following policies relevant to ecology and nature conservation;

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1.4.3 *Biodiversity Action Plans*

Biodiversity Action Plans (BAPs) were the UK's response to the 1992 Convention on Biological Diversity. The UKBAP (8) described the biodiversity of the UK and contains Action Plans for the most threatened habitats and species. It was implemented at a local level through regional and local BAPs. This proposed development falls within the area covered by the *Sussex Biodiversity Action Plan* (SBAP, 9). It should be noted that the *UK Post 2010*

Biodiversity Framework has now superseded the UKBAP, however BAPs are still used at a more local level. Species and habitats which were previously priorities within the UKBAP are now listed within section 41 of the NERC Act 2006 (4).

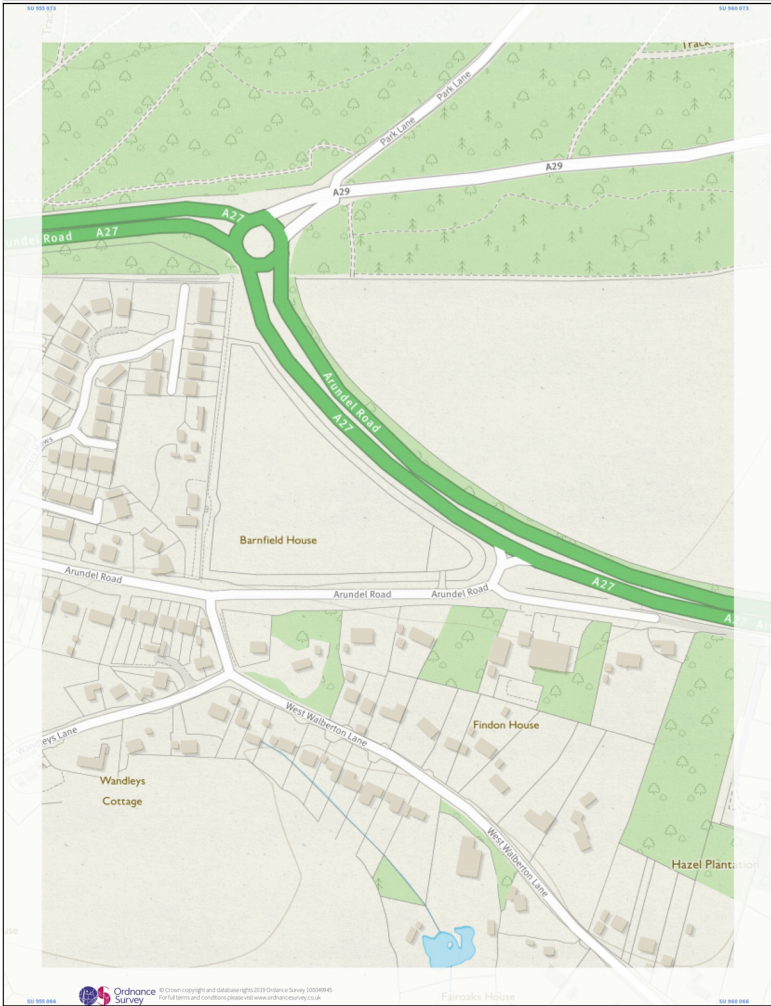


Figure 1: Site location. Contains Ordnance Survey data © Crown copyright and database right 2018.

2.0 Methodology

2.1 *Desk Study Methodology*

Available online resources such as the MAGIC (Multi-Agency Geographical Information for the Countryside) and NBN (National Biodiversity Network) websites were interrogated for relevant information. In addition, a search of information on protected sites and species within 1km of the site was requested from the Sussex Biological Records Centre (SxBRC).

2.2 *Field Survey Methodology*

The survey was carried for and on behalf of PJ Developments Ltd on 14th August 2019. The survey followed CIEEM's Preliminary Ecological Appraisal guidance (10). The survey consisted of a site walkover (loosely based on the "Phase 1" methodology (11), modified to suit the situation) with all accessible areas of the site and adjacent land (where relevant) covered. The habitats present were generally described, with attention paid to their potential to support protected species. A general search for evidence of protected species was also undertaken.

2.3 *Assessment Methodology*

2.3.1 *Introduction*

The methodology for the assessment of the likely ecological effects of the proposed development is based on the principles of CIEEM's *Guidelines for Ecological Assessment in the UK, 2nd Edition* (12). Although this assessment does not constitute a formal Ecological/ Environmental Impact Assessment, the CIEEM guidelines provide a useful framework for assessing ecological impacts at any level.

2.3.2 *Valuation*

Features of ecological interest are valued on a geographic scale. Value is assigned on the basis of legal protection, national and local biodiversity policy and cultural and/or social significance.

2.3.3 *Identification of Potential Ecological Impacts in Absence of Mitigation*

A development may have ecological effects beyond its site boundaries, therefore the CIEEM guidelines require that the 'zone of influence' be identified. Due to the relatively small size of this development, for the majority of ecological features, the zone of influence is considered unlikely to extend beyond the footprint of the works and immediately adjacent habitat.

Without mitigation, the proposed development may result in the following biophysical changes during construction and/or operation:

- Loss of and damage to habitats within or adjacent to the footprint of the development and construction zone.
- Any loss or damage of habitats could result in death and/or injury to protected species should they be present.
- Disturbance of immediately adjacent habitats and any wildlife using them.

2.4 *Limitations*

This survey comprised a single walkover. As such it is only possible to gain a snapshot of the ecology of the site and it is possible that some seasonal species could be missed, particularly given the timing of the survey. Additionally, much of the site had been recently disturbed at the time of the survey, and this may have made it difficult to detect some species. However, given the habitat types present on the site it is considered highly unlikely that any ecological features of significance would be missed.

The ecology of a site can change quickly over time. Therefore this survey is considered valid for two years from the date of the report.

3.0 Ecological Baseline

3.1 *Site Context*

The proposed development site is a small piece of land approximately 700m north of Walberton, bounded by West Walberton Lane, the main route into the village to the South, and Arundel Road. The surrounding land is a mosaic of residential properties with large gardens, pastoral farmland with small fields and hedgerows, and woodland. The busy A27 is approximately 200m to the north. This site itself as a private residential dwelling with large garden and trees to the north and south boundaries .

Towards the southwest of the site, is grassland (target note 2). The species composition is relatively similar, although the abundance of each species changes to favour the those more suited to the wetter conditions. Additional species include common fleabane *Pulicaria dysenterica*, marsh thistle *Cirsium palustris* and various mosses. Areas of the grassland to the north and south of the site have been succeeded to dense bramble.

The Southern boundary of the site is marked by a native-species Trees which has been previously managed. The dominant species is Ash, with oak, silver birch, hazel *Corylus avellana*, willows and bramble also present.

Two relatively large mature oak trees are present on the site boundary to the south of the site (target note 6), both of which have some ivy *Hedera helix* cover.

The Trees on the southwest corner (target note 7) marks the boundary between the site and adjacent gardens. It contains a mixture of native and non-native species including cherry laurel *Prunus laurocerasus*, *leylandii*, yew *Taxus baccata*, holly.

A number of large log piles are present, most of which have been created fairly recently, although one in the southeast of the site (target note 8) appears to be older, created from previous management of the hedgerows.

3.4 *Protected or Notable Species*

3.4.1 *Introduction*

SxBRC returned a number of records of protected species within the 1km of the site boundary. The majority of these are dependent on specific habitat types, such as those found on the designated sites within the search area, and therefore would be unlikely to occur on the habitats present on the site. However, species which could occur within the habitat types found on, or adjacent to, the site are considered in greater detail below.

3.4.2 *Great crested newts*

SxBRC returned seven records of great crested newts within 1km of the site relating to two or three different sites within the area, the nearest approximately 275m to the north. There were no recorded great crested newt mitigation schemes registered on MAGIC within the vicinity of the site. Current advice from Natural England advises that, other than in specific circumstances, it is not usually necessary to survey any ponds more than 250m from a site (14). No other ponds were identified within 250m during the site visit, or using Ordnance Survey mapping and aerial imagery.

3.4.3 Reptiles

SxBRC returned records of common lizard *Zootoca vivipara*, slow worm *Anguis fragilis*, grass snake *Natrix (natrix) helvetica* and adder *Vipera berus* from within the search area. Habitats on the site are not suitable for reptiles, particularly where they have a complex physical structure where the grassland grades in to scrub and bracken cover.

3.4.4 Hazel Dormouse

SxBRC returned a record of hazel dormouse *Muscardinus avellanarius*, approximately 700m to the north. Habitats on this site are generally of low suitability for this species, which is primarily arboreal.

3.4.5 Bats

SxBRC returned more than 200 records of bats from within the search area, including serotine *Eptesicus serotinus*, Daubenton's bat *Myotis daubentonii*, whiskered/Brandt's bat *Myotis mystacinus/brandtii*, Natterer's bat *Myotis nattereri*, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared bat *Plecotus auritus*, as well as a number of unidentified species.

Potential roost locations on the site are limited to the mature oaks at the northern and south end (target note 6). No high potential roost features such as rot holes, woodpecker holes, or splits etc, were noted. However both have some ivy cover and consequently are assessed as of being of low bat roosting potential in accordance with published guidance (17). The general area is likely to be of high quality for foraging bats with many potential roosts site present.

3.4.6 *Nesting birds*

Scrub and trees on the site and along the boundary are suitable for a variety of common bird species to nest. A number of nests from previous seasons were noted during the survey.

3.5 *Ecological Valuation*

In their current condition, the habitats on the site are not particularly noteworthy and no rare plant species were noted. The surrounding area is relatively rural and such habitats are likely to be commonplace. Therefore they are not considered to be of value outside of the zone of influence. The mature oak trees on the site are relatively old and are therefore considered to be of local ecological value.

The site has some potential to support protected species. Although the potential for great crested newts, bats or hazel dormouse to be present cannot be conclusively ruled out at this stage. Therefore it is not possible to provide a valuation for these species without additional survey work.

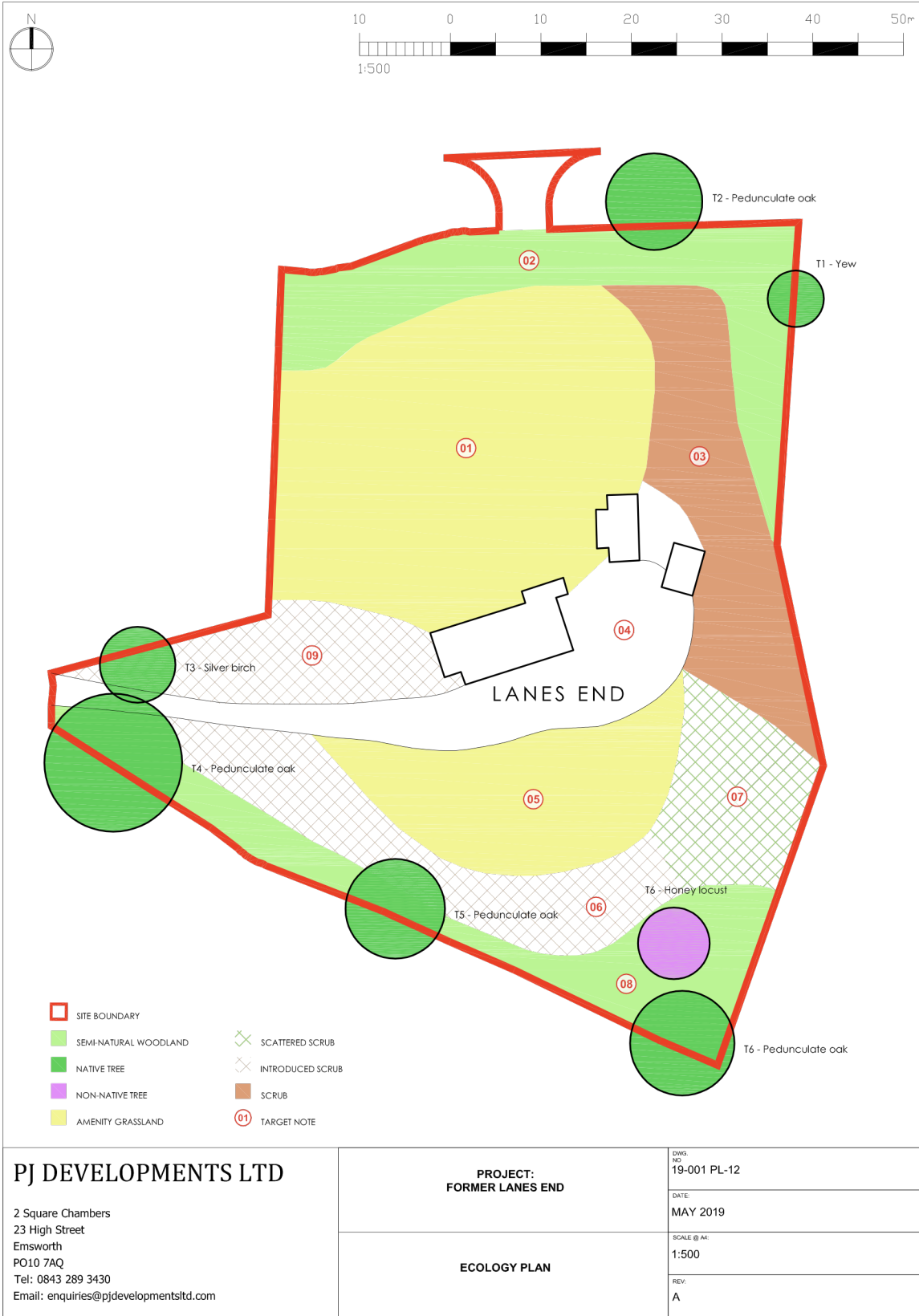


Figure 2.1: Habitats present within the survey area. See main text for the target note descriptions

4.0 Assessment of Likely Impacts in Absence of Mitigation

4.1 *Introduction*

The CIEEM guidelines (12) require that the potential impacts of the proposals should be considered in absence of mitigation. In order for a significant adverse effect to occur, the feature being affected must be at least of local value. However in some cases, features of less than local value may be protected by legislation and/or policy and these are also considered within the assessment. Although significant effects may be identified at this stage of the assessment, it is often possible to provide appropriate mitigation.

4.2 *Site Preparation and Construction Activities*

The habitats on the site are not considered to be ecologically valuable and therefore there will be no significant ecological effects as a result of their loss. To oak trees on the site are considered to be of local ecological value. Although these will be retained as part of the development.

Habitats on the site are suitable for great crested newts, bats and hazel dormice, although the likelihood of them being present is considered low. If site clearance took place when any of these species were present, they could be killed or injured as a result, and their resting places could be damaged or destroyed. These species are protected under the

Habitats Regulations and Wildlife & Countryside Act and therefore this could result in a legal offence. Great crested newt, hazel dormice and a number of bat species are Priority Species in the SxBAP, and therefore any impact upon them as a result of the development would contravene relevant planning policy.

Habitat on the site is suitable for a variety of nesting birds. The nests and eggs of all wild birds in the UK are protected under the Wildlife & Countryside Act, which prohibits disturbance of nesting birds and damage or destruction of active nests and eggs. Therefore, site clearance whilst nesting birds are present could result in a legal offence.

4.3 *Site Operation*

The development will result in an increase in the number of dwellings, Although the proposals are for only six houses, which is unlikely to be significant on its own, in combination with other developments within the area, it could result in a significant effect.

Increased lighting on the site could disrupt the behaviour of nocturnal wildlife such as bats, particularly if they are roosting in the oak trees on the site boundary.

5.0 Mitigation, Compensation and Enhancements

5.1 *Introduction*

This chapter contains recommendations for further works needed to fully assess the ecological impacts of the proposals and to mitigate any potential adverse effects. In addition, recommendations for the enhancement of nature conservation and biodiversity on the site are included.

5.2 *Further Survey*

5.2.1 Reptiles

It is unlikely that reptiles are present on the site, as it is predominately maintained residential garden which is unlikely to be suitable for reptiles, as such a full reptile survey is not recommended at this stage.

5.2.2 *Great crested newts*

At the time of the walkover survey, the site appeared unsuitable for great crested newts. Consequently a full great crested newt survey is not recommended at this stage.

5.2.3 *Bats*

The trees to the north and south of the site which have been identified as having low bat potential. These will be retained as part of the development. Although there is the potential for impacts to occur during and after construction, the implementation of appropriate mitigation measures should ensure they are not damaged and therefore bats are not adversely affected. Consequently a bat survey is not considered necessary to ensure the development would comply with relevant legislation and policy.

5.2.4 *Hazel dormice*

Generally the site is of very low potential for hazel dormice, it would be possible to ensure the development complies with relevant legislation through the implementation of appropriate mitigation, such as an unlicensed Method Statement incorporating Reasonable Avoidance Measures (RAMs), and therefore a survey would not be required.

5.3 *Mitigation Measures*

5.3.1 *Retention and protection of existing trees*

The oak trees on the site should be retained and protected during construction using standard arboricultural tree protection measures. As much as possible of the remaining trees should be retained, although sections could be removed to create site access. These measures would also mitigate the potential for impacts to bats and dormice.

5.3.3 *Reptiles*

If reptiles are found to be present on the site it would be necessary to implement measures to protect them from harm. This may involve their capture and relocation to a retained areas of suitable habitat on the site, or a suitable off-site receptor area.

5.3.4 *Great crested newts*

If great crested newts are identified, it would be necessary to design and implement mitigation measures to protect them from harm during construction, and ensure the development does not adversely affect their conservation status. It is likely to be possible to retain habitat on the site for great crested newts to use. It would be necessary to obtain an EPS mitigation licence from Natural England prior to undertaking any works that could affect great crested newts.

5.3.5 *Hazel dormice*

It would be possible to mitigate any potential impacts to dormice through the implantation of RAMs. These are likely to include: a suitably qualified ecologist searching the affected areas for the presence of dormice prior to any clearance; carrying out the works at an appropriate time of year; and the presence of an ecologist on the site to supervise the works. If a dormice was found at any point, the works would stop and an EPS licence would be required for the works to continue.

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5.3.6 *Nesting birds*

In order to prevent disturbance of nesting birds, any clearance of trees, bushes or thick scrub on the site should be carried out outside of the bird nesting season (typically March to August). If this is not possible, any vegetation to be removed should be thoroughly searched for the presence of active nests immediately prior to clearance. If any active nest are found they should be retained *in situ* with a suitable buffer of undisturbed vegetation until the nestlings have fledged.

5.3.7 *Lighting design*

The lighting design for the development should seek to minimise disruption to nocturnal wildlife, particularly bats. External lighting throughout the development (in communal areas an external security lighting on the houses) should be low level and full cut-off so that the boundaries of the site, and the mature oaks, are not illuminated.

5.4 *Recommendations for Ecological Enhancements*

5.4.1 *Introduction*

The proposals also present the opportunity for ecological enhancements as required by Planning Policy. Therefore the following recommendations are made in order to maximise this opportunity and have been informed by the BAPs (where relevant). Not all of these need to be implemented in order to comply with the relevant policy.

5.4.2 *Planting of seed-bearing tree and shrub species.*

Landscaping around the new development should incorporate a variety of native seed, fruit or berry-bearing tree and shrub species. These will provide a valuable food source for a variety of bird species including song thrush *Turdus philomelos* (an SxBAP Priority Species) house sparrow *Passer domesticus*, dunnock *Prunella modularis*, all of which are NERC Act S.41 species and have been recorded within the vicinity, as well as a variety of other common bird species.

5.4.3 *Bat boxes*

A number of bat boxes should be erected on the site with at least one box on each of the six new dwellings. A number of suitable designs are available which can either be incorporated into the walls of the houses, or fixed to the outside. The designs selected should be suitable for a variety of species, particularly pipistrelles, *Myotis* species such as the Natterer's bat and the brown long-eared bat. Soprano pipistrelle and brown long-eared bat are SxBAP Priority Species and a Species of Principal Importance under the NERC Act.

5.4.4 *Stag beetle habitat*

The stag beetle *Lucanus cervus* is a large woodland beetle species which is a Priority Species in the SxBAP and a Species of Principal Importance under the NERC Act. They are reliant on rotting deadwood for larval development and therefore at least two stag beetle "loggeries" should be constructed on the site. These should comprise a number of partially buried logs or tree stumps (i.e. part of the logs should be above ground, whilst some should be below) which provide habitat for the larvae.

6.0 Summary and Conclusions

6.1 *Summary*

This ecological appraisal report details the potential ecological effects of the proposed residential development at Lanes end, Arundel Road. The proposals entail the clearance the site and construction of the six new dwellings.

The site comprises a single detached dwelling and gardens and mature oak trees on the boundaries. The site contains habitat suitable for nesting birds, and there is a low likelihood for other protected species (great crested newts, hazel dormice and bats) to be present. The habitats on the site are not considered to be of particular ecological value, although the oak trees are worthy of protection, and additional precautions are recommended to prevent impacts to other protected species should they be present.

The proposals would not result in the loss of any ecologically significant habitats, although they could result in harm to protected species should they be present, as well as the disturbance of nesting birds. Therefore measures are recommended to ensure they are not harmed during construction. The lighting for the new development should aim to reduce potential impacts to nocturnal wildlife.

The development presents opportunities for ecological enhancements in line with local and national planning policy and biodiversity targets. This should include planting fruit or seed bearing trees and shrubs, erecting bat boxes and creating habitat for stag beetles.

6.2 *Residual Impacts*

Provided the mitigation measures recommended in Section 5.3 of this report, and at least some of the enhancement measures outlined in Section 5.4 are implemented in full, this should successfully mitigate the potential ecological effects identified within Chapter 4. Consequently the development would comply with the relevant nature conservation legislation and planning policy.

7.0 References

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