

# Low Impact EcIA:

Land between 42 and 44 Ongar Road, Abridge, Essex

# On behalf of:

Landiplomacy

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### Summary

Land between 42 and 44 Ongar Road, Abridge (the site) was visited on 10<sup>th</sup> February 2021 in response to a proposal for development. The applicant proposes two dwellings along the site frontage.

#### Legally protected species

- All outbuildings were subject to Preliminary Roost Assessment for bats. No evidence of roosting bats was found, and there were no enclosed loft voids or external crevices that could reasonably support roosting bats. All outbuildings have <u>negligible</u> bat roost potential (BCT, 2016) and require no further survey ahead of demolition.
- There are several trees, shrubs and scrub on and bordering the site that are likely to attract nesting birds. Vegetation management/clearance will be undertaken between September and February inclusive to avoid the breeding bird season. Active nests (containing eggs or chicks) must be left undisturbed until the young have fledged.

#### Habitats

• All retained trees will be afforded protection in accordance with best practice and arboricultural advice.

#### **Enhancement opportunities**

There is scope to install bat boxes, bird boxes and incorporate new planting. These measures would contribute to Government aims under Paragraph 170(d) of the National Planning Policy Framework 2019 and Local Plan policies which require all development to demonstrate measurable biodiversity net-gain.

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### **1.0** Introduction

#### Personnel

1.1 This report has been prepared by Gemma Holmes; Consultant Ecologist at Hybrid Ecology Ltd. Gemma is a qualified ecologist with 12 years' experience in professional survey work and is an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM). Gemma holds licences to survey for great crested newt and bats in the UK (Licence numbers 2015-19096-CLS-CLS and 2016-27305-CLS-CLS respectively).

#### Brief

1.2 Landiplomacy instructed Hybrid Ecology to produce a Low Impact EcIA for 44 Ongar Road, Abridge, Essex (grid reference: TQ4704897080) in relation to two dwellings along the western boundary between number 42 and 44. A Location Plan is in Figure 1 and Survey Boundary is in Figure 2. A proposed site plan is in Appendix 1.

#### Aims

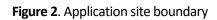
1.3 This Low Impact EcIA has been produced to advise the client/developer and relevant members of the project team as to the key ecological constraints and opportunities associated with this project and any necessary mitigation requirements to ensure legal obligations in respect of protected species, designated sites and habitats are met.

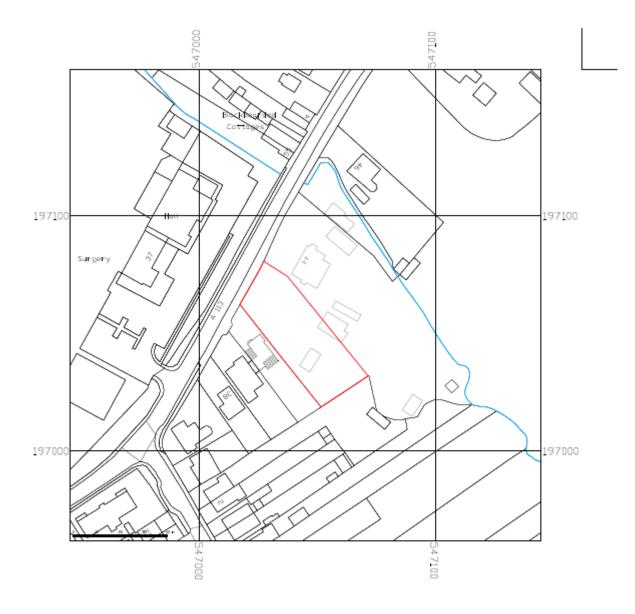
#### Limitations

- 1.4 Whilst every effort has been made to provide a comprehensive description of the site, no investigation could ensure the complete characterisation and prediction of the natural environment. Wildlife is transient and mobile, and results of a survey can reasonably vary from one day to the next or across the seasons.
- 1.5 The protected species assessment provides a view of the likelihood of protected species occurring on the site based on the known distribution of species in the local area and the suitability of the habitat. However, it should not be taken as providing a full and definitive survey of any protected species/group.
- 1.6 Biological records can be patchy, and some areas/species are under recorded, therefore absence of records for a species or group does not necessarily mean that there is a lack of ecological interest. Equally, the presence of records does not necessarily mean the habitat is still suitable for the species/group in question.
- 1.7 This report is valid for 18 months, after which point habitats are reasonably expected to have changed to warrant a re-survey.

#### Figure 1. Location plan









### 2.0 Planning Policy and Legislation

#### National Planning Policy Framework (2019): Conserving and Enhancing the Natural Environment

Please note the below policies have been taken directly from the National Planning Policy Framework, which can be found here: National Planning Policy Framework - GOV.UK (www.gov.uk)

#### Paragraph 170

- 2.1 Planning policies and decisions should contribute to and enhance the natural and local environment by:
  - a) Protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
  - b) Recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
  - c) Maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
  - d) Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
  - e) Preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans;
  - f) Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

#### Paragraph 175 (d)

2.2 Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

#### Legislation: Protection of Designated Sites, Habitats and Species

Please note this section is a summary of legislation only and should not be taken as a definitive interpretation of any law. UK wildlife legislation can be found here: Legislation.gov.uk

#### **Designated sites**

#### RAMSAR

2.3 Ramsar sites are designated under the Convention on Wetlands of International Importance especially as Waterfowl Habitat. Wetlands are designated, protected and promoted in order to stem the progressive encroachment on and loss of wetlands, which are broadly defined to include marsh, fen, peatland and water.

#### Special Areas of Conservation (SAC)

2.4 Special Areas of Conservation are sites designated by Member States under the EC Habitats Directive. The aim is to establish a network of important high quality conservation sites that will make a significant contribution to conserving habitats and species considered to be most in need of conservation at an international level.

#### Special Protection Areas (SPA)

2.5 Special Protection Areas are designated under the EC Birds Directive, to conserve the habitat of certain rare or vulnerable birds and regularly occurring migratory birds. Any significant pollution or disturbance to or deterioration of these sites has to be avoided.

#### National Nature Reserves (NNR)

2.6 National Nature Reserves are statutory reserves established for the nation under the Wildlife and Countryside Act, 1981. NNRs may be owned by relevant national body (e.g. Natural England in England) or established by agreement; a few are owned and managed by non-statutory bodies. NNRs cover a selection of the most important sites for nature conservation in the UK.

#### Sites of Special Scientific Interest (SSSI)

2.7 Sites of Special Scientific Interest are areas notified under the Wildlife and Countryside Act, 1981, as being of 'special interest for nature conservation'. They represent the finest sites for wildlife and natural features in Great Britain supporting many characteristic, rare and endangered species, habitats and natural features. Notification as a SSSI is primarily a legal mechanism organised by Natural England and selected according to specific criteria. The *Guidelines for the Selection of Biological SSSIs*, published in 1989 by the Joint Nature Conservancy Council, set down the selection criteria for both biological and geological SSSIs.

#### Local Nature Reserves (LNR)

2.8 Land owned, leased or managed by Local Authorities and designated under the National Parks and Access to the Countryside Act. A site of some nature conservation value managed for educational

objectives - no need for SSSI status. Some reserves are managed by a non-statutory body. Local authorities have the power to pass bylaws controlling (e.g.) access, special protection measures.

#### Local Wildlife Site / Wildlife Sites

2.9 Local Wildlife Sites (LoWS) are non-statutory sites designated at a county level as being of conservation importance and often recognised in Local authority development plans. The aim of this identification is to protect such sites from land management changes, which may lessen their nature conservation interest, and to encourage sensitive management to maintain and enhance their importance. Although LoWSs have no statutory protection they need to be considered in the planning process through Planning Policy Guidance like PPG9 which refers to the Town & Country Planning Act 1990 Section 30. This states that nature conservation issues should be included in the surveys of local authority areas to ensure that the plans are based on fully adequate information about local species, habitats, geology and landform.

#### Regionally Important Geological / Geomorphological Site (RIGS)

2.10 Regionally Important Geological/Geomorphological Sites are non-statutory earth science sites. The RIGS networks are locally based voluntary groups drawing on both professional and interest groups identifying sites using a methodical and rational approach. RIGS are analogous to non-statutory biological sites - they are not a second tier but sites of regional or local importance in their own right.

#### Legally protected species

2.11 The Conservation of Habitats and Species Regulations (2019 EU Exit) affords protection to bats (all species), great crested newt, otter and dormouse (this is not an exhaustive list). The Wildlife and Countryside Act 1981 (as amended) is the main source of legal protection for wildlife in England and was strengthened by the Countryside and Rights of Way Act 2000. Species protection is provided under Schedules 1, 5, 6 and 8 to species including bat, great crested newt, water vole, otter and nesting birds. Badgers are protected separately under the Protection of Badgers Act (1992).

#### Species and Habitats of Principal Importance in England (or Priority habitats/species)

2.12 The Natural Environment and Rural Communities Act (2006) places a duty on Local Planning Authorities to conserve and enhance certain habitats and species. The species that have been designated to be of "principal importance for the purpose of conserving biodiversity" are those that are most threatened, in greatest decline, or where the UK holds a significant proportion of the world's total population. They mainly derive from lists originally drawn up for the UK Biodiversity Action Plan (UK BAP). Similarly, the list of habitats of principal importance in England also derive from the UK Biodiversity Action Plan.

### 3.0 Methodology: Desktop Study

#### Mapping exercise

- 3.1 Aerial imagery (Google Earth Pro, 2020) was used to examine the landscape context of the site in relation to significant ecological assets such as woodland, established hedgerows, grassland and any naturalised features that would allow wildlife use and dispersal.
- 3.2 Multi-Agency Geographical Information for the Countryside (MAGIC) was used to identify any land designated for nature conservation reasons within 2km of the site. Designated sites include Ramsar, Special Areas of Conservation (SAC), Special Protection Areas (SPA), Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR). MAGIC was also used to identify any areas of land mapped by Natural England as Priority Habitat within 250 metres of the site.

#### **Biological Records Search**

Essex Field Club (EFC) was instructed to carry out a search of records for protected and priority species within a 2km radius of the site. Data records are included in the protected species evaluation in Section 7.

### 4.0 Methodology: Habitats and Species

#### Phase 1 Habitat Survey

4.1 An Extended Phase 1 Habitat Survey was carried out on 10<sup>th</sup> February 2021 by ecologist Gemma Holmes (BSc Hons ACIEEM). The survey included the red line in Figure 2 and up to 30 metres beyond the site boundaries, where accessible. The weather conditions were conducive to surveying, with good visibility, no wind and no rain. The survey was undertaken in accordance with the Handbook for Phase 1 Habitat Survey (JNCC 2010).

#### Protected/priority species scoping

4.2 The survey also included an assessment of the site's potential to support any legally protected species; or Species and Habitats of Principal Importance, as identified by Section 41 of the Natural Environment and Rural Communities Act (2006). Where best practice guidelines exist, these have been used to assess the likelihood that individual species will be present, for example Bat Surveys: Good Practice Guidelines (BCT 2016) and Habitat Suitability Index for Great Crested Newt (Oldham et al, 2000).

#### **Evaluation criteria**

4.3 Ecological features (designated sites, habitats and species) were evaluated where possible in relation to a geographical context (i.e. International, National, Regional, Metropolitan, County, District, Borough, Local and Site), in accordance with CIEEM Ecological Impact Assessment Guidelines (2016). Criteria include designations, quality of habitat in relation to the site context, ability to support notable assemblages of species, contribution to habitat connectivity, dispersal opportunities or providing intrinsic ecological value.

### 5.0 Results: Desktop Study

#### Landscape context

5.1 The site is situated in a suburban setting to the north-east of Abridge in Essex. The immediate environment consists of low-medium density residential properties lining Ongar Road and a village hall/public open space directly opposite. In the wider environment there are grazing paddocks, woodland (Ape's Grove) 420 metres to the south-east and the River Roding which is 235 metres to the north-west, beyond Ongar Road.

#### **Designated sites and Priority Habitats**

#### **Designated sites**

- 5.2 The site is not the subject of a conservation designation see Appendix 2. The site is 3.2km to the southeast of Epping Forest SAC and SSSI. Magic indicates that, for new residential development in this area an Habitats Regulations Assessment (HRA) is required on the likely significant effects of recreation on Epping Forest SAC. The HRA is completed by the Local Planning Authority (Epping Forest District Council) and this ecological assessment provides information to support the HRA. It is understood that this site falls outside of the scope of the Air Pollution Mitigation Strategy.
- 5.3 All internationally designated sites, including Epping Forest are fully protected by the Conservation of Habitats and Species Regulations (Amendment) (EU Exit) Regulations 2019). Any new development must avoid having a significant adverse effect on the ecological features for which an SPA/SAC/Ramsar site was designated. Any such effect must be considered in combination with potential effects from other developments within influencing distance of the designated site.
- 5.4 Due to the small scale of the development, surrounding habitats and distance from Epping Forest, this development proposal is very unlikely to have a direct significant adverse effect upon qualifying features. It may however, contribute to cumulative impacts associated with increased visitor pressure by increasing the number of local residents. The applicant should liaise with EFDC in respect to the level of financial contribution required as mitigation for recreational impacts.

#### **Priority Habitats**

5.5 There are no Priority Habitats on the site. The closest Priority Habitat is floodplain grazing, to the north of Ongar Road and ancient woodland (Ape's Grove) 420 metres to the south-east.

<u>Sites evaluation</u>: The LPA will be required to provide a Habitats Regulations Assessment in respect of Epping Forest. This report provides the information to demonstrate there will be no direct impact on qualifying features of Epping Forest. Mitigation is required in respect of recreational impacts, which could be dealt with via a financial contribution.

### 6.0 Results: Phase 1 Habitat Survey

Photographs from the site visit are provided in Appendix 3. For full details on legally protected species, please refer to Section 7. Latin names appear in the text once.

#### **Buildings/hard standing**

- 6.1 The site contains several outbuildings and is adjacent to number 44 Ongar Road which is retained. All buildings on and adjoining the site were inspected for completeness.
- 6.2 The house (off-site) is a detached modern property with rendered walls and a pitched, tiled roof aligned north-east/south-west. There is a loft space that has mostly been converted into a bedroom, only small loft voids remain. The property is in a good state of repair with no observable external crevices or possible access points into the loft. Metal soffits are well-sealed to external walls and all roof and ridge tiles are intact. A terrace extends to the south-east towards a swimming pool.
- 6.3 The detached garage (off-site) is to the north-east of the house and has been partly converted. The age and construction style is the same as the house. There is no enclosed loft void and dormer windows are present on the first floor. The garage is in a good state of repair with no observable external crevices or possible access points into the loft.
- 6.4 There are several outbuildings on the site, all are simple timber structures with no enclosed loft voids and timber clad walls.
- 6.5 In the development footprint there is a hard standing area currently used for parking vehicles.

#### **Individual trees**

6.6 There are a small number of trees and shrubs on the site boundaries, they include leylandii, silver birch, hawthorn and cherry laurel. There is a row of mature crack willow trees to the north-east of the site, beyond a stream and dense bramble scrub. A mature oak tree overhangs the site to the south.

#### Hedgerow

6.7 There is an ornamental photinia hedgerow along the site's northern boundary, bordering a gravel access road.

<u>Habitats evaluation</u>: The habitats are typical of a managed garden environment and are ecologically significant at <u>Site Level</u> only. Retained trees should be protected in accordance with best practice, using Heras fencing or similar to define a construction exclusion zone.

 Hongar Road

 Tiget notes

Figure 3. Target notes (please note the red line boundary is larger than the application site)

Target note (TN)	Description
1	Hard standing and leylandii hedge.
2	Retained house, off-site.
3	Row of crack willow trees beyond wet ditch.
4	Timber outbuilding overhung by a mature oak tree.
5	Timber outbuilding.
6	Timber outbuilding.
7	Off-site trees including silver birch.

### 7.0 Results: Protected/Priority Species Scoping

#### Bats

#### Data records:

7.1 The closest bat records returned are for common pipistrelle (1km), serotine (1.1km) and Leisler's bat (1.1km).

#### Habitat requirements:

7.2 Bats roost in buildings, trees and underground sites. Buildings with large, uncluttered loft voids, external crevices (e.g. hanging tiles, fascias, weatherboarding) and missing roof tiles are often suitable, particularly when a building is close to a foraging resource – e.g. woodland or water. Trees with cavities, woodpecker holes, hazard beams and flaking bark are also suitable for roosting.

#### Assessment:

- 7.3 All buildings on and adjacent to the site were thoroughly inspected for areas that could reasonably support bats (e.g. voids or crevices) and for field signs such as droppings.
- 7.4 The small loft void in the house (off-site) is of modern construction style and comprises modern timbers and lining. No light was seen to spill in from the outside indicating that it is well-sealed. Externally the house is in a good state of repair with no missing/slipped roof or ridge tiles and all external cladding including soffit boxes are well-sealed to external walls. The detached garage is the same age and construction style as the house but lacks a loft void. All external features including roof tiles, ridge tiles and soffits are well-sealed with negligible opportunities for wildlife ingress. The pool house is single storey but in a similar state of repair with negligible wildlife potential. The house, garage and pool house have negligible bat roost potential (BCT, 2016) and require no further survey.
- 7.5 The timber outbuildings all lack loft voids and external crevices. No evidence was found to indicate recent use by bats and conditions are sub-optimal at best. The outbuildings have negligible bat roost potential (BCT, 2016) and require no further survey.
- 7.6 No trees were found on or bordering the site with potential bat roost features.
- 7.7 It is likely that small numbers of bats will forage over the site as there are connections to off-site woodland, the stream and boundary trees. The proposed development will not result in the severance or removal of habitats that would be used by foraging/commuting bats and the Favourable Conservation Status of bats will not be affected.

#### Outcome: No impacts predicted. Further survey is not required.

#### **Great crested newt**

#### Data records:

7.8 No great crested newt records were returned from EFC.

#### Habitat requirements:

- 7.9 Great crested newt (GCN) require both terrestrial and aquatic habitats. They return to aquatic habitat to breed March-June, using small to medium ponds with no fish and suitable marginal vegetation including watercress and float grass (Froglife 2001).
- 7.10 Terrestrial habitat includes refuges and foraging and dispersal opportunities as well as hibernation sites such as rubble piles or mammal burrows. It is rare to find GCN over 250 metres from a breeding pond (Cresswell & Whitworth 2004).

#### Assessment:

- 7.11 There are no natural ponds on the site. There is one pond 235 metres to the east of the site.
- 7.12 Garden environments can attract great crested newt if there are clusters of ponds within 250 metres and there is access to suitable terrestrial habitat, which can include a combination of rough grassland, scrub, log piles and buried rubble. Since the site is largely mown grassland, it lacks these habitat features and is unlikely to be attractive to great crested newt. Furthermore, there is only one pond within 250 metres which reduces the likelihood of great crested newt being present locally. Recent research (Cresswell (2004)) found that, at distances greater than 200-250m, capture operations in relation to great crested newt mitigation will hardly ever be appropriate, demonstrating their limited numbers at this distance from a breeding pond.

#### Outcome: No impacts predicted. Further survey is not required.

#### Dormouse

#### Data records:

7.13 No dormouse records were returned within 2km of the site.

#### Habitat requirements:

7.14 The hazel dormouse requires wooded habitats, usually semi-natural woodland containing hazel coppice and oak, and a rich understorey cover through which to disperse safely between trees (English Nature 2006).

#### Assessment:

7.15 The habitat on site is unsuitable for this species. The development will not result in the loss of or disturbance to ancient woodland, continuous dense scrub or native, species rich hedgerows with onward connectivity.

#### Outcome: No impacts predicted. Further survey is not required.

#### Otter and water vole

#### Data records:

7.16 No water vole or otter records were returned within 2km of the site.

#### Habitat requirements:

7.17 Both species require flowing water, deep enough to support foraging behaviour and with connectivity into the wider landscape.

#### Assessment:

7.18 The stream which flows along the northern boundary is culverted at the road and is covered with dense bramble on the site side. The water at the time of the survey was shallow and no observable burrows or suitable vegetation structure for water vole were identified on exposed areas of banks. No areas of the stream banks were identified as possible otter holts, nor is the aquatic environment suitable for this species, with shallow water, lack of fish and disrupted connectivity from culverting.

#### Outcome: No impacts predicted. Further survey is not required.

#### Reptiles

#### Data records:

7.19 No reptile records were returned from EFC.

#### Habitat requirements:

7.20 Reptiles (common lizard, slow worm, grass snake and adder) require mosaic habitats with features in which to bask, forage and shelter. These habitats need to have onward connectivity for dispersal. Suitable habitats include grassland with scrub edges or small woodland coppices (Edgar et al. 2010).

#### Assessment:

7.21 The habitats on and immediately adjoining the site are well-maintained and lacking in diversity, structure and shelter. Whilst the occasional reptile (e.g. slow worm) in garden environments cannot be ruled out, any reptile presence on this site is likely to be transient presence of limited numbers at best.

#### Outcome: No impacts predicted. Further survey is not required.

#### Birds

#### Data Records:

7.22 Records exist locally for Schedule 1 listed birds including redwing, fieldfare and red kite. Records for the Priority Species yellowhammer and house sparrow were also returned.

#### Habitat requirements:

7.23 Nesting birds use a wide range of habitats including buildings, scrub and woodland between March and August inclusive (note some species including pigeon will nest all year round).

#### Assessment:

7.24 There is no habitat on site suitable for supporting Schedule 1 listed bird species (i.e. species with elevated legal protection). Nesting birds are likely to be attracted to trees, boundary shrubs and scrub.

Outcome: Further survey is not required. Any work that could impact an active nest (e.g. tree work) will be undertaken between September and February inclusive, to avoid the nesting period. If this is not possible, an ecologist can carry out a check for active nests immediately prior to work commencing. Any active nests found must be left undisturbed until the young have fledged, this can take up to 3 weeks (species dependent).

#### Badger

#### Data records:

7.25 No badger records were returned from EFC.

#### Habitat requirements:

7.26 Badger is a widespread, common mammal and is legally protected due to persecution rather than rarity or conservation significance. Badger requires habitats in which to build their setts and in which to forage. Badgers preferentially choose sloping banks (road verges, railway embankments, woodlands) with easy-dig substrate for sett building where foraging habitat is available.

#### Assessment:

7.27 No badger setts, or any other signs alluding to use of the site by badger were identified on the site.

#### Outcome: No impacts predicted. Further survey is not required.

#### Legally protected plants/invertebrates

#### Data Records:

No records for notable plants or insects were returned for the site. The site does not contain any significant invertebrate habitat, and there are no habitats on the site that could reasonably support rare or notable plant species.

#### Outcome: No impacts predicted. Further survey is not required.

<u>Species evaluation</u>: With the exception of nesting birds, there is not a reasonable likelihood of protected or priority species being present and further survey is not required. The species presence is considered to be important at <u>Site level</u> only.

### 8.0 Ecological Constraints and Opportunities

#### Nesting birds

8.1 All nesting birds receive basic legal protection from killing and injury. Nesting birds are likely to use the tree, shrubs and boundary scrub. Any work that could impact an active nest will be carried out between September and February inclusive unless a check for active nests has been completed by an ecologist immediately beforehand and the habitat in question deemed clear of inactive nests. Any active nests (e.g. supporting eggs, chicks or young) found must be left undisturbed with a suitable undisturbed buffer until the young have fledged.

#### **Opportunities**

8.2 Biodiversity net-gain is now mandatory under Paragraph 170(d) of the National Planning Policy Framework (2019) and recommended in Local Plan policies.

#### New planting

8.3 Where possible, any trees removed should be replaced. This could include planting small trees such as apple, cherry, hazel and amalanchier. Night-scented shrubs such as honeysuckle and nightshade would improve foraging opportunities for bats.

#### Habitat boxes (Recommended boxes are provided in Appendix 4)

- 8.4 There is scope to install habitat boxes around the site to improve opportunities for wildlife, specifically Priority Species including Daubenton's bat, soprano and Nathusius's pipistrelle, and birds including dunnock, spotted flycatcher and house sparrow. It is recommended that the following features are included in the development:
  - Two bat roost features (either externally mounted or integrated) such as bat bricks, tiles or tubes could be installed on retained trees or new buildings, above 2 metres, away from external lighting, with a clear 1 metre drop below and a clear flight line towards vegetation.
  - Two sparrow terraces on a northern or eastern wall underneath the eaves.
  - Two open-fronted bird boxes targeting dunnock, robin, spotted flycatcher and grey wagtail could be installed in sheltered positions in boundary shrubs/trees or on buildings.

### 9.0 Conclusions

- 9.1 The survey has established ecological constraints to developing the site and identified opportunities that new development could bring.
- 9.2 The site is not designated for any conservation reason and does not contain any Priority Habitat. A financial contribution is likely to be required for mitigation in relation to recreational pressure on Epping Forest.
- 9.3 Since no evidence of, or potential for legally protected species was found on the site, there is not a reasonable likelihood of presence to warrant any further survey requirement. Mitigation measures are required to ensure any nesting birds on site are given appropriate protection in accordance with wildlife legislation. Trees will be retained wherever possible or their loss will be fully compensated for. All retained trees will be protected in accordance with best practice.
- 9.4 The development presents an opportunity to implement enhancement measures such as bat roost boxes and bird nesting features, which will increase the wildlife value of the site post-development. These measures will also ensure compliance with the requirement for measurable "biodiversity net-gain" and provide new habitat opportunities in accordance with Paragraph 170(d) of the National Planning Policy Framework 2019 and Local Plan policies.

#### References

BCT, 2018. Bats and Artificial Lighting https://www.bats.org.uk/news/2018/09/new-guidance-on-bats-and-lighting

BCT, 2016. Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edition). The Bat Conservation Trust, London. http://www.bats.org.uk/pages/batsurveyguide.html? sm au =ijVSrSJrZMIR1Psj

BSI, 2013. BS 42020:2013 Biodiversity. Code of practice for planning and development. British Standards Institute. Available at: http://shop.bsigroup.com/ProductDetail/?pid=0000000030258704

BS 5837, 2012. Trees in Relation to Design, Demolition and Construction – Recommendations.

BTO, 2015. Birds of Conservation Concern 4: the population status of birds in the UK, Channel Islands and Isle of Man. British Birds. https://www.britishbirds.co.uk/wp content/uploads/2014/07/BoCC4.pdf

CIEEM, 2015. Guidelines for Ecological Report Writing. Chartered Institute of Ecology and Environmental Management, Winchester. Available at: http://www.cieem.net/data/files/Publications/Ecological Report Writing 23.12.2015.pdf

CIEEM, 2016. Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester. Available at: <u>http://www.cieem.net/data/files/Publications/EcIA\_Guidelines\_Terrestrial\_Freshwater\_and\_Coastal\_Jan\_2016.pdf</u>

Conservation of Habitats and Species Regulations, 2017. Available at: http://www.legislation.gov.uk/uksi/2010/490/pdfs/uksi\_20100490\_en.pdf

Cresswell and Whitworth, 2004. An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt Triturus cristatus.

English Nature, 2001. Bat Mitigation Guidelines.

English Nature, 2006. The Dormouse Conservation Handbook, 2nd edition. English Nature. Available at: https://ptes.org/wp-content/uploads/2014/06/Dormouse-Conservation-Handbook.pdf? sm au =ijVSrSJrZMIR1Psj

Froglife, 2001. Great Crested Newt Conservation Handbook. Suffolk: Froglife. Available at: <u>http://www.froglife.org/wp-content/uploads/2013/06/GCN-Conservation-Handbook\_compressed.pdf</u>

Froglife, 2001. Advice Sheet 10. Surveying Reptiles. Available at: <u>http://www.froglife.org/wp-content/uploads/2014/01/FAS\_10.pdf</u>

Harris, S., Cresswell, P., Jefferies, D., 1989. Surveying Badgers. London: The Mammal Society. Available at: <a href="http://www.mammal.org.uk/sites/default/files/Surveying%20Badgers%20%201989%20-%20Whole%20Book.pdf">http://www.mammal.org.uk/sites/default/files/Surveying%20Badgers%20%201989%20-%20Whole%20Book.pdf</a>

HM Government, 2018. National Planning Policy Framework. London: Department for Communities and Local Government. Available at: http://planningguidance.communities.gov.uk/blog/policy/

HM Government, 2015a, as amended. Protected species and sites: how to review planning proposals. Available at: <a href="https://www.gov.uk/guidance/protected-species-and-sites-how-to-review-planning-proposals">https://www.gov.uk/guidance/protected-species-and-sites-how-to-review-planning-proposals</a>

JNCC, 2004b. Common Standards Monitoring Guidance for Reptiles and Amphibians. JNCC. Available at: <a href="http://incc.defra.gov.uk/pdf/CSM">http://incc.defra.gov.uk/pdf/CSM</a> reptiles amphibians1.pdf

JNCC, 2010. Handbook for Phase 1 habitat survey: A technique for environmental audit. JNCC. Available at: <a href="http://jncc.defra.gov.uk/PDF/pub10">http://jncc.defra.gov.uk/PDF/pub10</a> handbookforphase1habitatsurvey.pdf? sm au =ijVN1vPTstvVv1Dt

JNCC, 2014, as amended. Protected areas designations directory. JNCC. Available at: http://jncc.defra.gov.uk/page-1527

Natural Environment and Rural Communities Act (NERC Act), 2006, as amended. Available at: <u>http://www.legislation.gov.uk/ukpga/2006/16/contents</u>

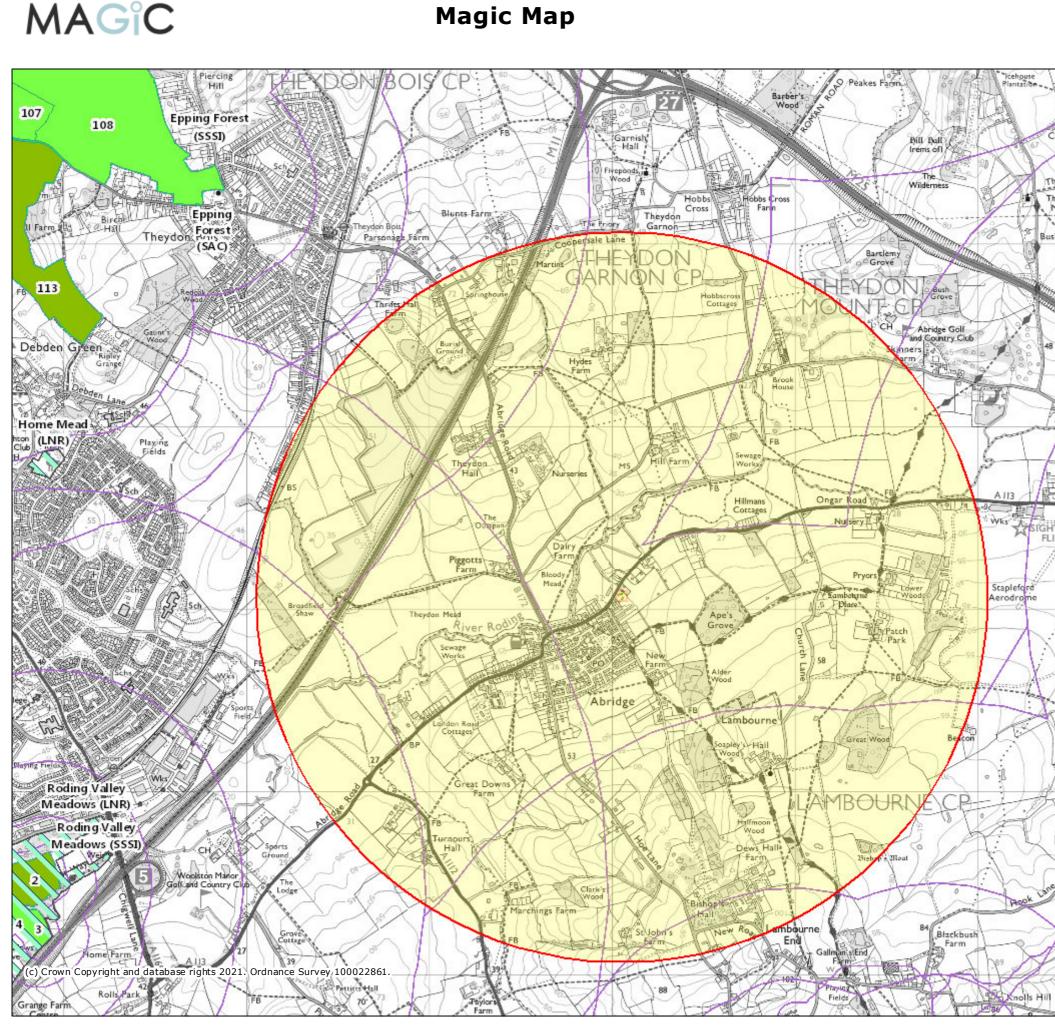
Protection of Badgers Act, 1992. Available at: http://www.legislation.gov.uk/ukpga/1992/51/pdfs/ukpga\_19920051\_en.pdf

Appendix 1. Proposed site plan



Appendix 2. Magic map showing designated sites

## **Magic Map**



### Legend

- Local Nature Reserves (England)
- National Nature Reserves (England)
- Ramsar Sites (England)
- Proposed Ramsar Sites (England)
- SSSI Impact Risk Zones to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)
- Special Areas of Conservation (England)

Potential Special Protection Areas (England)

Possible Special Areas of Conservation (England)

Special Protection Areas (England)

Biosphere Reserves (England)

Sites of Special Scientific Interest Units (England)

Favourable Condition

Unfavourable Recovering

Unfavourable no change

Unfavourable Declining

Part Destroyed

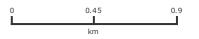
Destroyed

Not Assessed

Sites of Special Scientific Interest (England)

Projection = OSGB36 xmin = 542000 ymin = 195100 xmax = 551200 ymax = 199700

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#### Appendix 3. Photographs



a) Development site containing amenity lawn, hard standing and leylandii hedge.



b) Western end of the site.



c) Outbuilding to south of the site.



d) Outbuilding to south of the site.



e) View across the site from the south.



f) Crack willow tree line to the east of the site.

#### Appendix 4. Bat and bird boxes



a) Harlech crevice bat roost box for trees. Woodcrete Bat Box that provides good insulation and minimal condensation, ideal for roosting bats. Recommend purchasing a minimum of 2 - 3 and facing in different directions (Available here - <u>https://gardenature.co.uk/product/harlech-woodstone-bat-box</u>)



b) Sparrow terrace for buildings. Recommend installing above 2 metres and facing north or east. (Available here - <u>http://www.wildlifeservices.co.uk/nestboxes/sparrowterrace.jpg</u>)



c) Open fronted nest box (Available here - <u>https://www.nhbs.com/vivara-pro-barcelona-woodstone-open-nest-box</u>)