

Hayne Barn, Saltwood, Hythe, Kent

Preliminary Ecological Appraisal

28th August 2018 / Ref No 2018/07/07

Client: Mr I Record



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Contents

1	Introduction	2
1.1	Background to the Scheme	2
1.2	Survey Location/Area	2
1.3	Survey Objectives	2
1.4	Limitations	2
2	Methodology	3
2.1	Desk Study	3
2.2	Scoping Survey	3
3	Baseline Ecological Conditions	4
3.1	Designated Nature Conservation Sites	4
3.2	Habitats	4
3.3	Amphibians	6
3.4	Reptiles	7
3.5	Birds	9
3.6	Hazel Dormouse	9
3.7	Badger	10
3.8	Bats	10
3.9	Other Species	10
4	Ecological constraints and opportunities, recommendations for mitigation, compensation and further survey	11
4.1	Designated Nature Conservation Sites	11
4.2	Habitats	12
4.3	Amphibians	12
4.4	Reptiles	12
4.5	Birds	13
4.6	Hazel Dormouse	13
4.7	Badger	13
4.8	Bats	14
4.9	Other Species	14
4.10	Additional Recommendations: Enhancements	14
5	References and Bibliography	16

1 Introduction

1.1 Background to the Scheme

KB Ecology Ltd has been commissioned to undertake a baseline ecological survey and a preliminary ecological appraisal with regards to a proposed development at Hayne Barn, Saltwood, Hythe Kent, in support of a planning application for the erection of five proposed Eco Lodges.

1.2 Survey Location/Area

The site is located at approximately TR 156 367. The location of the site is shown on Figure 1 and Figure 2.

1.3 Survey Objectives

The purpose of this survey is to provide a scoping assessment and to assist in demonstrating compliance with wildlife legislation and planning policy objectives.

The key objectives are as follows:

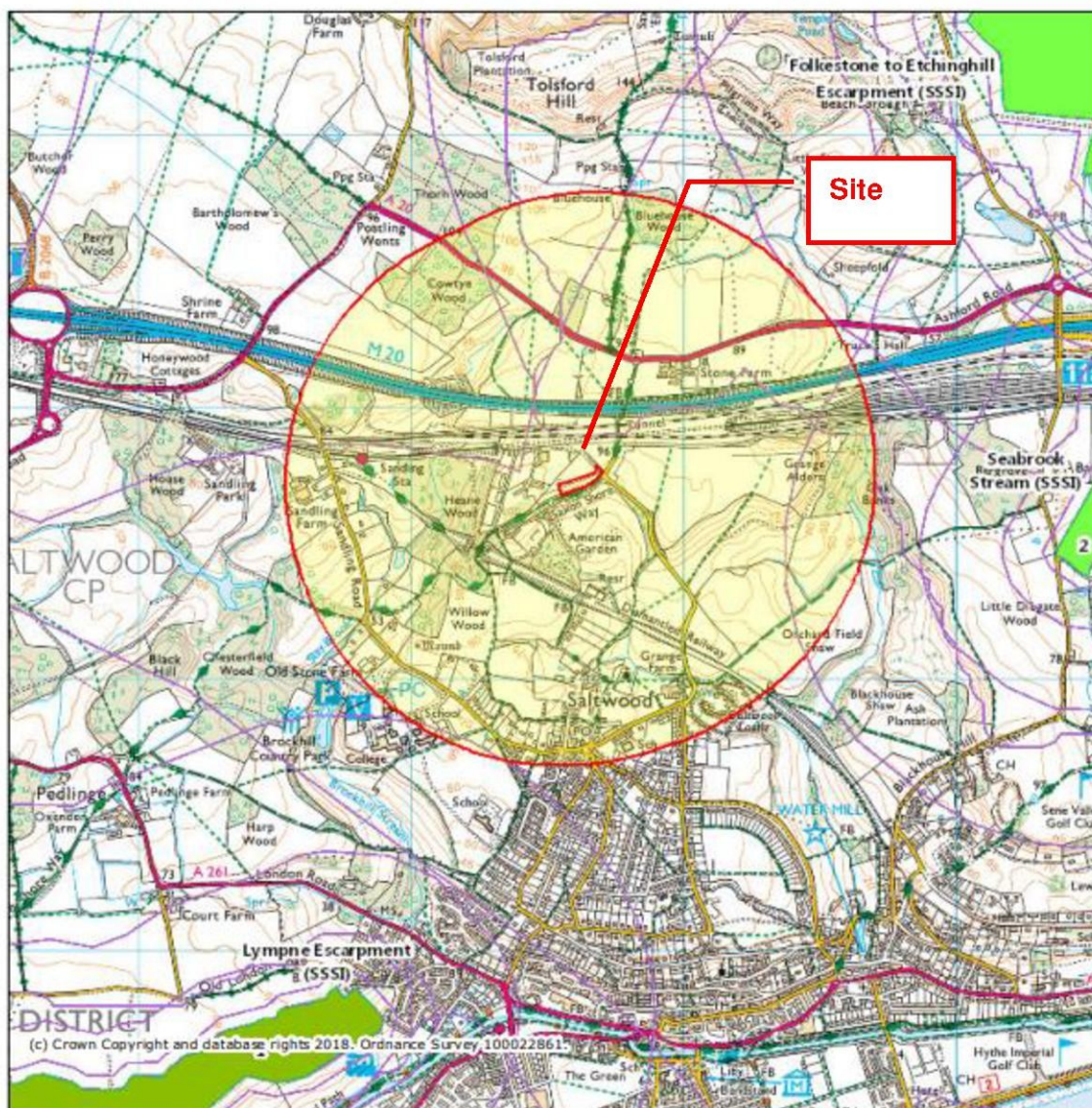
- Identify all relevant statutory and non-statutory designated sites and features of ecological significance within the site and its surroundings.
- Assess the potential for the presence of protected species and species of principal conservation importance, important habitats or other biodiversity features within the site and its surroundings.
- Provide recommendations for further surveys where assessed as necessary and suggest potential enhancements.
- Present the likely significance of ecological impacts on the proposed development.
- Provide an early indication of potential ecological mitigation and compensation requirements necessary as part of any development proposals.

A summary of wildlife legislation and policy has been included in Appendix A.

1.4 Limitations

This report has been prepared and provided in accordance with the Chartered Institute of Ecology and Environmental Management's Code of Professional Conduct and the opinions expressed are true and professional bona fide opinions. It records the potential for flora and fauna evident on the days of the site visits. It does not record any flora or fauna that may appear at other times of the year and, as such, were not evident at the time of visit.

The findings of this report represent the professional opinion of a qualified ecologist and do not constitute professional legal advice. The client may wish to seek professional legal interpretation of the relevant wildlife legislation cited in this document.



Legend

- | | |
|-------------------------------------|---------------------------------|
| Limestone Pavement Orders (England) | National Parks (England) |
| Local Nature Reserves (England) | Ramsar Sites (England) |
| Moorland Line (England) | Proposed Ramsar Sites (England) |
| National Nature Reserves (England) | Ramsar Sites (Scotland) |
| National Nature Reserves (Scotland) | Ramsar Sites (Wales) |
| National Nature Reserves (Wales) | |

0 0.6 1.2
km

Projection = OSGB36

xmin = 612100

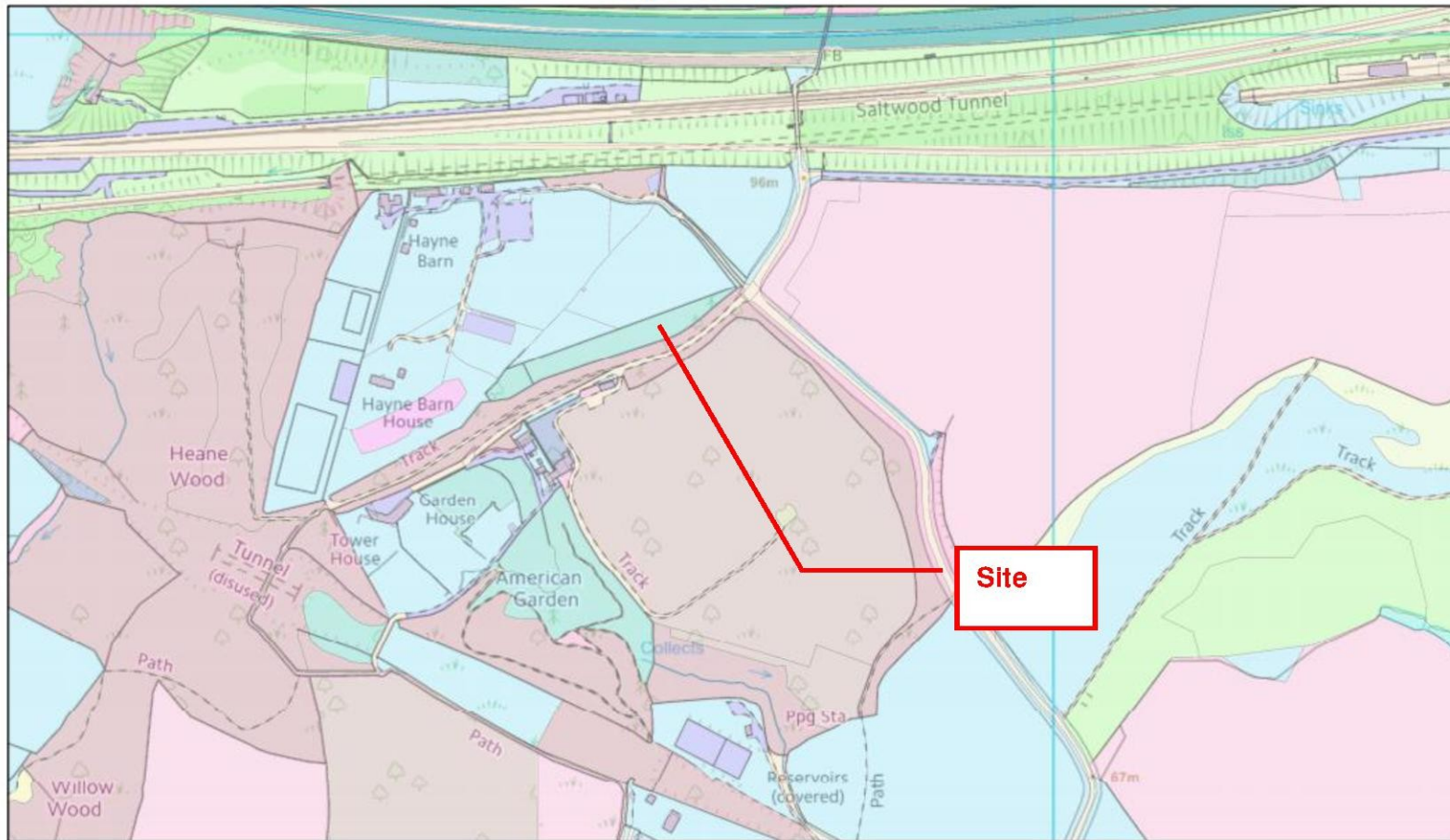
ymin = 134000

xmax = 618900

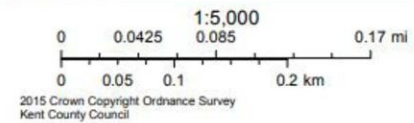
ymax = 138800

Map produced by MAGiC on 28 August, 2018.
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Figure 2 - K-LIS

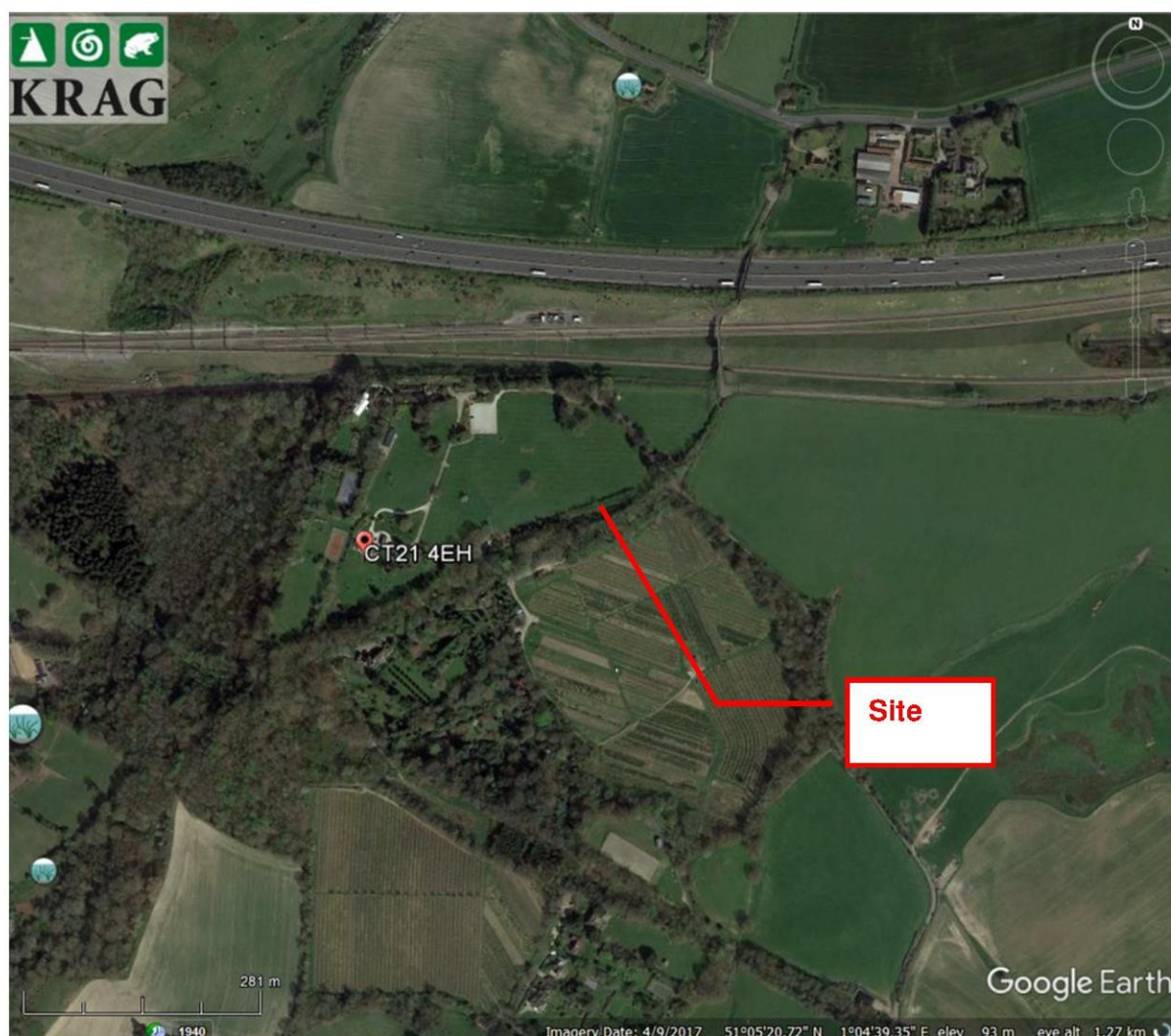


August 28, 2018



Produced by: KCC GIS Development Team
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Figure 3: indicates location of ponds from Krag data search



2 Methodology

2.1 Desk Study

Internet-based resources were consulted to identify designated nature conservation sites within 1km of the site and habitats of potentially high ecological importance and sensitivity within 500m of the site (e.g. ancient woodlands, ponds).

A data search was carried out with the Kent Reptile and Amphibian Group Krag^{1, 2}.

2.2 Scoping Survey

The site and its immediate surroundings were considered in terms of habitats, protected species and species of principal conservation importance during a walkover survey undertaken on 21st August 2018 by Katia Bresso CEnv MCIEEM, a qualified professional consultant ecologist with over 15 years of experience³, licensed bat surveyor (Class Licence CL19, Level 3, Registration Number: 2016-27133-CLS-CLS⁴) and Registered Consultant of the Bat Mitigation Class Licence (BMCL) (formerly Bat Low Impact Class Licence) WML-CL21 with Natural England (since May 2015), licensed dormouse surveyor (Class Survey Licences Registration Number 2016-22060-CLS-CLS) and licensed great crested newt surveyor (Class Licence CL08, Level 1, Registration Number: 2015-16268-CLS-CLS and licence 2017-30955-SCI-SCI for box traps). Evidence of the use of the site by species was recorded (i.e. field signs).

The habitat survey was undertaken in general accordance with Phase 1 Habitat Survey (JNCC 2010), i.e. within the survey area every parcel of land is classified, recorded and mapped in accordance with a list of ninety specified habitat types using standard colour codes to allow rapid visual assessment of the extent and distribution of different habitat types.

The survey and report aim at following the guidance and recommendations in the 'British Standard Biodiversity Code of Practice for Planning and Development (BS 42020: 2013)'.

All trees were also checked for potential for roosting bats (from the ground only, using binoculars and an endoscope^{5, 6}).

¹ Please note that absence of records should not be taken as confirmation that a species is absent from the search area.

² Due to the scale of the project, it was judged disproportionate to undertake a costly data search with the Kent and Medway Biological Record Centre KMBRC as the data would be unlikely to be relevant to this site.

³ Katia Bresso is a Suitably Qualified Ecologist with regards to Code for Sustainable Homes assessment and BREEAM

⁴ This licence allows the holder to disturb or capture bats using: torches, endoscopes, hand nets, static hand-held nets, mist nets for development surveys (can be used for a maximum of 3 days at any one site), acoustic lures and to disturb but not handle hibernating bats.

⁵ Teslong 5.5mm Inspection NTS200 Digital Endoscope with 3.5 Inch full color LCD Screen

⁶ Please note that it is possible some bat roosting features may have been missed as the survey was undertaken whilst the trees were in full leaves

3 Baseline Ecological Conditions

3.1 Designated Nature Conservation Sites

The site is not part of, nor directly adjacent to, any statutory designated sites and none are located within 1km of the site.

One local wildlife site⁷, 'Saltwood Valley', is present 800m to the East of the site.

3.2 Habitats

The site is surrounded by the large formal gardens of Hayne Barn House to the West and North with a railway line beyond the northern boundary. Arable land is present to the South and East and woodland further away.

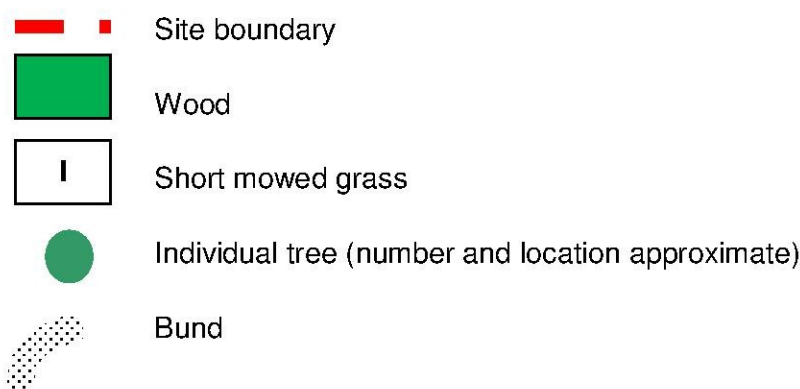
The Integrated Habitat System (IHS) classification of the Kent Habitat Survey 2012 describes the site as:

- *Broadleaved, mixed, and yew woodland;*
- *Improved grassland.*

Indeed, it consists of juvenile coniferous species, historically planted as Christmas trees, with a group of self-seeded sycamore saplings and some bramble. Some small open grassy areas are present where trees have failed. A grass path (regularly cut) runs along the South boundary on the other side of which is an area of mature trees with ash, sycamore and oak on a steep embankment (outside the site). To the East is an area of open grass with a grassed bund made of rubble and earth and mature trees (pine, hawthorn, beech) along the main access to Hayne Barn House.

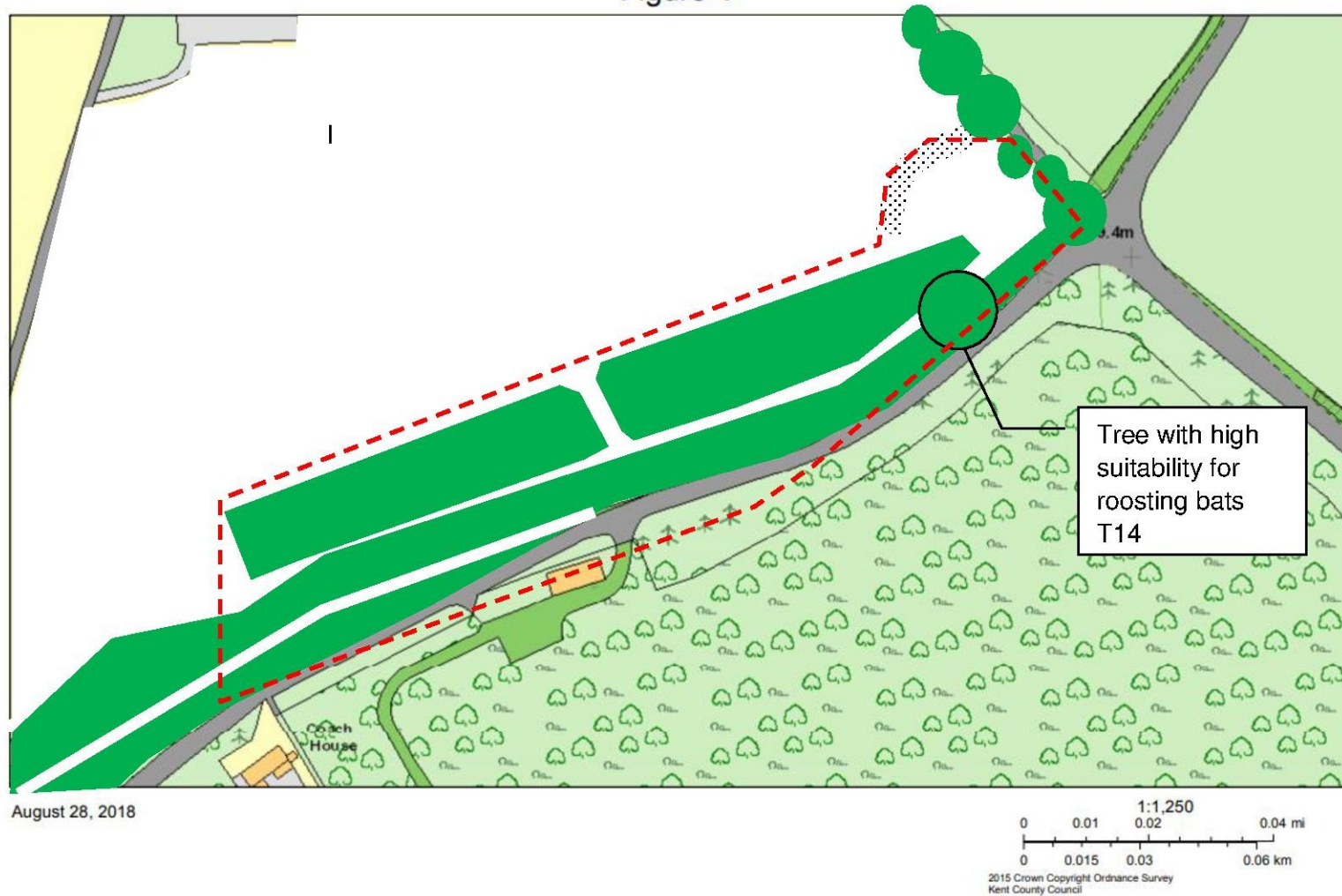
Plates are present in Appendix B. Figure 4 below shows the location of the habitats.

Legend of Phase 1 habitat survey map hereafter:

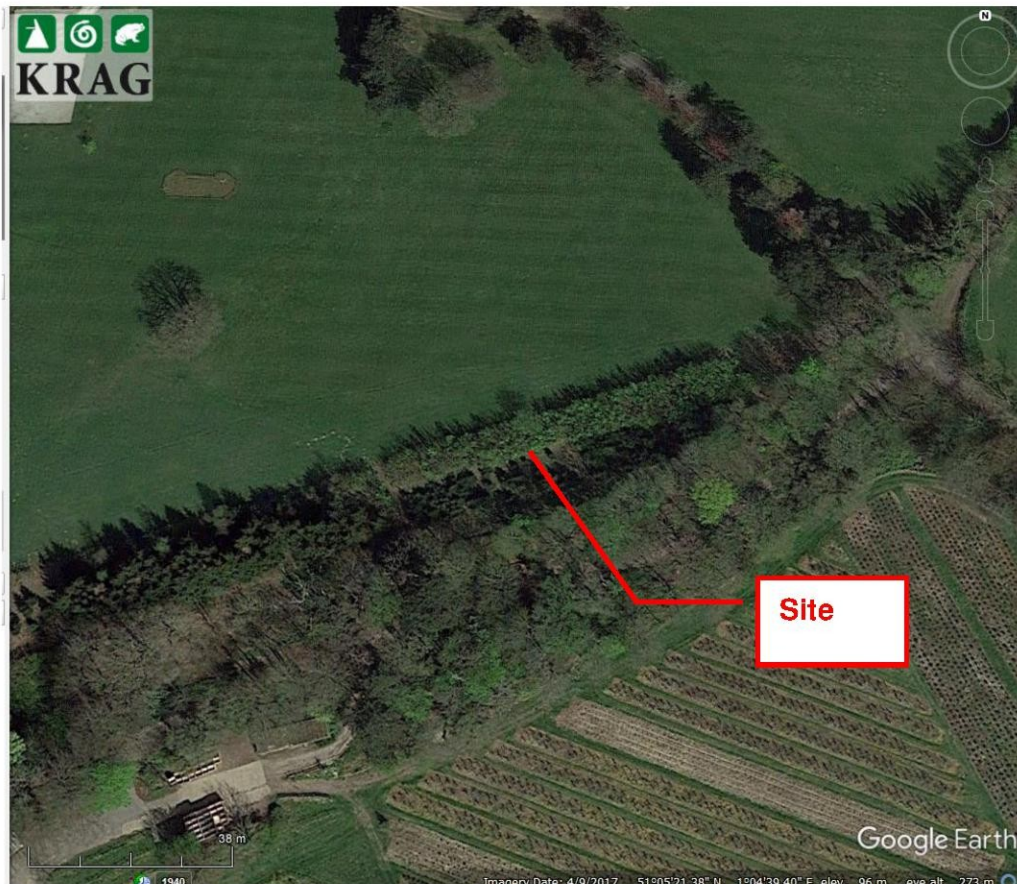


⁷ In Kent, there are over 460 Local Wildlife Sites, covering a total area of over 27,500 hectares, (roughly 7% of the county). They range from a 0.13 hectares churchyard important for its orchids, to grazing marsh sites of over 1,000 hectares.

Figure 4



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3.3 Amphibians

The data search carried out with Krag (Enquiry No: CES/18/152) revealed that the closest recorded Great Crested Newt *Triturus cristatus* site is located at a historical record located at Frogholt, 2.14 km to the E (record id: 3699).

Great crested newts favour areas of high pond density and occupancy levels can exceed 40% of ponds when conditions are favourable. Krag's database risk assessment indicates that the likelihood of presence of great crested newts *in the overall area* is 'Possible'⁸, with only ten ponds present within 1km.

The 'Great Crested Newt Mitigation Guidelines' (English Nature 2001) state the following: *'Great crested newts have been found to move over considerable distances (up to 1.3km from breeding sites). However, the vast majority of newts will inhabit an area much closer to the pond, and the exact distribution and migration patterns of newts on land depends on a variety of factors. The quality of terrestrial habitat near to breeding ponds is important, as are the lack of barriers to dispersal (such as fast-flowing rivers, or very busy roads). The distribution of ponds and hibernation opportunities may also influence movements. [...] Several studies have been conducted which reveal a great deal of variation, but great crested newts commonly move between ponds that are within around 250m of each other.'*

In *Advice for land managers*, Natural England (2007) states:

⁸ Likelihood of Presence Scores are described using the following categories:
Unlikely<Possible<Likely<High
Preliminary Ecological Appraisal
Hayne Barn, Saltwood, Hythe
KB Ecology Ltd- August 2018

'Great crested newt may disperse several hundred metres, sometimes over 1km, from the breeding pond, though at most sites the majority of the population is normally found within around 100m of it.'

No ponds are present on site or within 250m and only one pond is present within 500m, but on the other side of the railway line and M20 corridor which is expected to act as a barrier to amphibian movement. Thus great crested newts are not expected to be present on site.

3.4 Reptiles

The Krag datasearch revealed that the closest recorded reptile is Grass Snake, located at Saltwood Reservoir, 0.4 km to the S (record id: 55526). The likelihood of reptiles to be present *in the overall area* is judged as per table below:

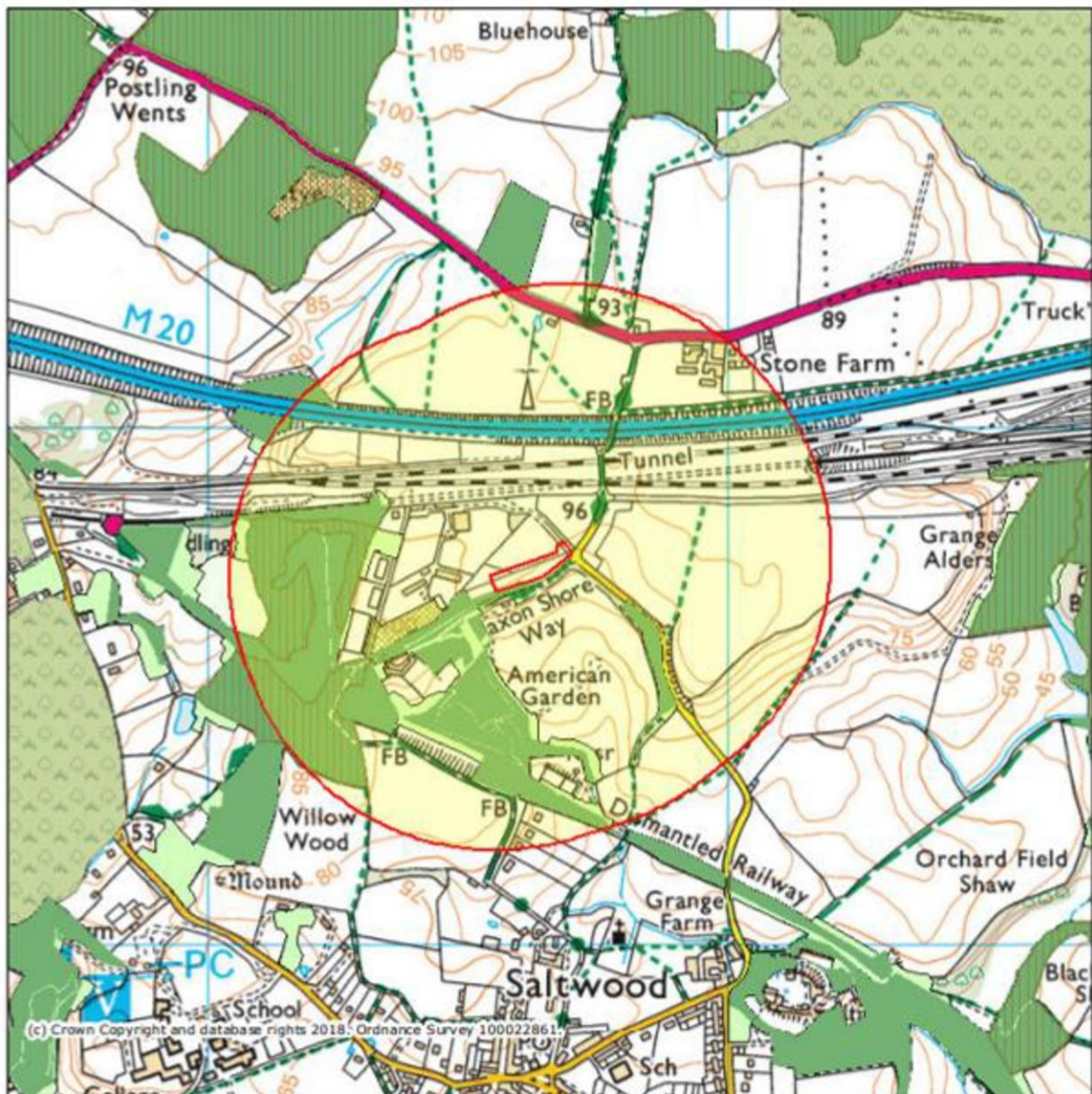
Reptiles		
	Likelihood of Presence	
	Score	Dist (km)
Viviparous Lizard:	Likely	1.20
Slow-worm:	HIGH	0.40
Sand Lizard:	unlikely	31.69
Grass Snake:	HIGH	0.40
Adder:	Likely	1.75
Smooth Snake:	n/a	n/a

Reptile survey effort in local area is considered to be above average.

A small number of reptiles could be present along the grassy areas and paths on site, although none were seen during the site visit. The rubble and earth bund could be used by hibernating reptiles.

Common reptiles are afforded limited legal protection under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). They are also listed as species of principal conservation importance (See Appendix A).

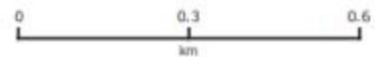
For more information, guidance from Natural England is available at <https://www.gov.uk/reptiles-protection-surveys-and-licences>



Legend

Ancient Woodland (England)

- Ancient and Semi-Natural Woodland
- Ancient Replanted Woodland
- Priority Habitat Inventory - Deciduous Woodland (England)
- Forestry Commission Legal Boundary (England)



Projection = OSGB36

xmin = 613900

ymin = 135500

xmax = 617400

ymax = 138000

Map produced by MAGiC on 28 August, 2018.

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3.5 Birds

It is considered that the site has high potential to support breeding birds within the trees.

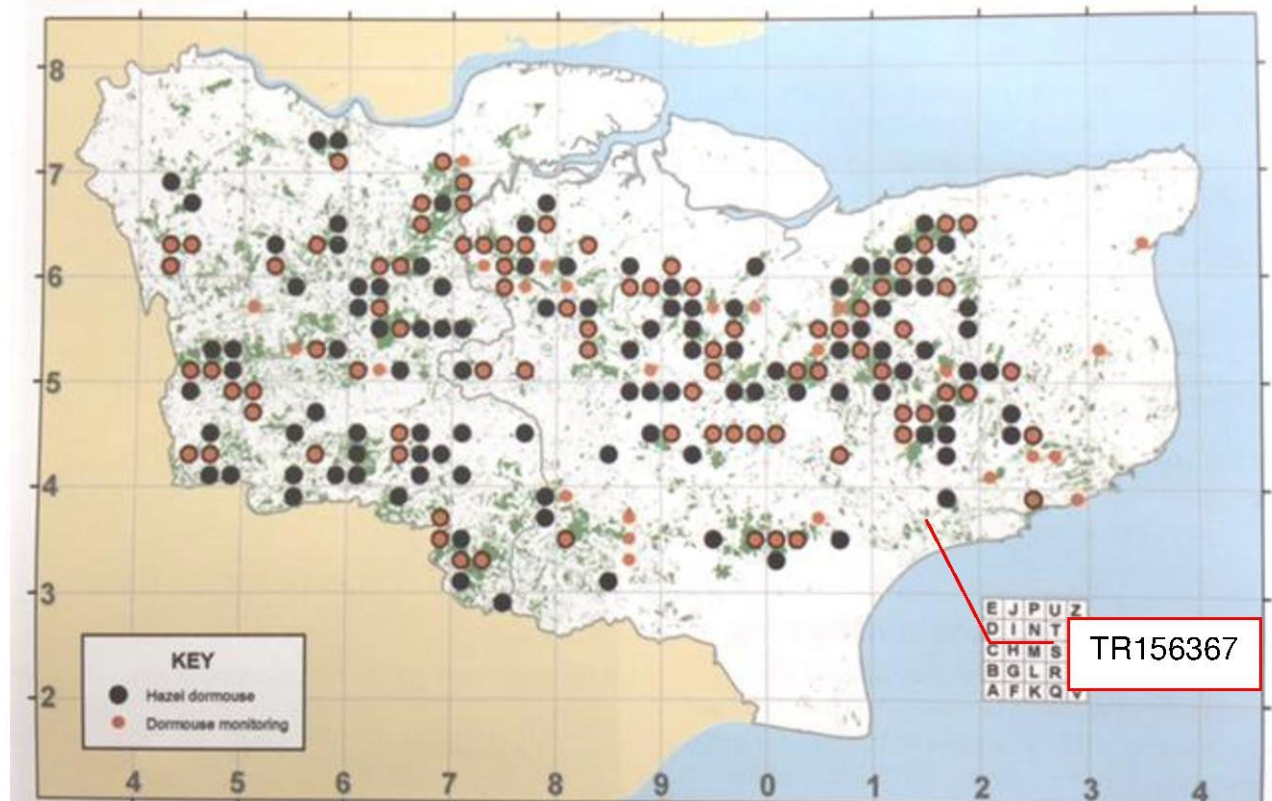
All species of bird whilst actively nesting are afforded legal protection under the Wildlife & Countryside Act 1981 (as amended) and special penalties are available for offences related to birds listed on Schedule 1. Some species are also listed as species of principal conservation importance, including sky lark, common cuckoo, house sparrow, tree sparrow and song thrush (See Appendix A).

For more information, guidance from Natural England is available at <https://www.gov.uk/wild-birds-protection-surveys-and-licences>

3.6 Hazel Dormouse

It is considered that the trees have potential to support the hazel dormouse *Muscardinus avellanarius* due to connection to suitable woodlands (some ancient⁹), although the species is not known near-by. No nests or signs of dormice were found during the site visit.

Map showing known presence of dormice in Kent (from Mammals of Kent, 2015):



The dormouse is afforded full legal protection under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). It is also listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 and are therefore a "European Protected Species" (EPS). The dormouse is also listed as species of principal conservation importance (See Appendix A).

For more information, guidance from Natural England is available at <https://www.gov.uk/hazel-dormice-protection-surveys-and-licences>

⁹ Land that has had continuous woodland cover since at least 1600 AD

3.7 Badger

No setts or signs of badgers *Meles meles* were identified during the survey.

3.8 Bats

None of the trees present on site offered suitability for roosting bats (but an oak tree, T14, present on the steep embankment to the south of the site did offer high suitability due to the presence of cavities).

The surrounding area is likely to be used by foraging and commuting bats.

All species of bat are afforded full legal protection under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). They are also listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017 and are therefore a “European Protected Species” (EPS). Some species of bats (noctule, soprano pipistrelle, brown long-eared bat, barbastelle) are also listed as species of principal conservation importance.

The legislation makes it a criminal offence to:

- Deliberately capture, injure or kill a bat;
- Intentionally or recklessly disturb a bat in its roost or deliberately disturb a group of bats;
- Damage or destroy a bat roosting place (even if bats are not occupying the roost at the time);
- Possess or advertise/sell/exchange a bat (dead or alive) or any part of a bat;
- Intentionally or recklessly obstruct access to a bat roost.

For more information, guidance from Natural England is available at

<https://www.gov.uk/bats-protection-surveys-and-licences>

3.9 Other Species

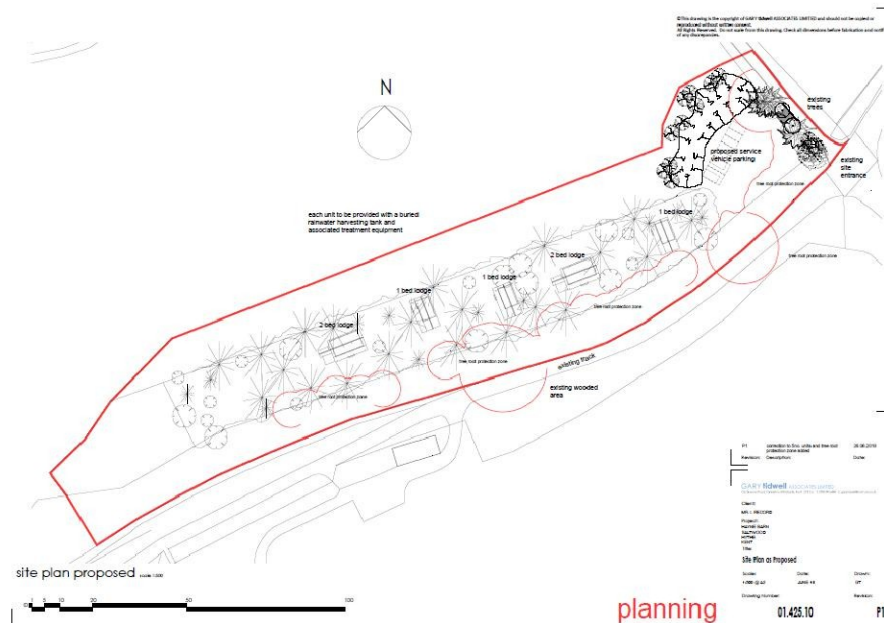
It is considered that the surroundings have potential to support hedgehogs (*Erinaceus europaeus*), which are a Species of Principal Importance under Section 41 of the NERC Act (2008 updated list).

Common mammal species such as rabbit (*Oryctolagus cuniculus*), mole (*Talpa europea*), field vole (*Microtus agrestis*) and fox (*Vulpes vulpes*) are likely to be present on site.

All mammals are afforded protection against unnecessary suffering by the Wild Mammals (Protection) Act 1996 (see Appendix A).

4 Ecological constraints and opportunities, recommendations for mitigation, compensation and further survey

It is expected that the lodges will be installed without foundations and with minimum tree clearance within the plantation copse. A small number of trees will be lost to allow for a new 3m wide access to the East (from the existing access road).



Should the scope of the proposed works be amended following the completion of this scoping survey, or be deferred for an extended period of time, there may be a requirement to update this scoping report and its recommendations.

4.1 Designated Nature Conservation Sites

A site check report was generated for the site using the Impact Risk Zones on the Magic website¹⁰:

¹⁰ The Impact Risk Zones (IRZs) dataset is a GIS tool which maps zones around each SSSI according to the particular sensitivities of the features for which it is notified and specifies the types of development that have the potential to have adverse impacts.

Natural England uses the IRZs to make an initial assessment of the likely risk of impacts on SSSIs and to quickly determine which consultations are unlikely to pose risks and which require more detailed consideration. Publishing the IRZs will allow LPAs, developers and other partners to make use of this key evidence tool.

<http://www.naturalengland.org.uk/ourwork/planningdevelopment/impactriskzonesgistoolfeature.aspx>

28/08/2018

Site Check Report generated on Tue Aug 28 2018
You selected the location: Centroid Grid Ref: TR15603671
The following features have been found in your search area:

SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)

1. DOES PLANNING PROPOSAL FALL INTO ONE OR MORE OF 2. IF YES, CHECK THE CORRESPONDING DESCRIPTION(S) BELOW. LPA SHOULD CONSULT THE CATEGORIES BELOW? NATURAL ENGLAND ON LIKELY RISKS FROM THE FOLLOWING:

All Planning Applications	
Infrastructure	Pipelines, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals.
Wind & Solar Energy	
Minerals, Oil & Gas	Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.
Rural Non Residential	
Residential	
Rural Residential	
Air Pollution	Any industrial/agricultural development that could cause AIR POLLUTION (incl: industrial processes, livestock & poultry units with floorspace > 500m ² , slurry lagoons > 200m ² & manure stores > 250t).
Combustion	General combustion processes >20MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.
Waste	Landfill. Incl: inert landfill, non-hazardous landfill, hazardous landfill.
Composting	Any composting proposal with more than 75000 tonnes maximum annual operational throughput. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.
Discharges	
Water Supply	Large infrastructure such as warehousing / industry where total net additional gross internal floorspace following development is 1,000m ² or more.
Notes	
GUIDANCE - How to use the Impact Risk Zones	/Metadata_for_magic/SSSI IRZ User Guidance MAGIC.pdf

The type of development proposed is not listed as being a category for which the LPA should consult Natural England. The proposal is not judged detrimental to any protected sites.

4.2 Habitats

Trees to be retained should be protected during any construction work and guidance is given in the 'BS 5837:2012 Trees in relation to design, demolition and construction. Recommendations' document. This standard requires a tree protection plan to be developed which involves erecting physical barriers to prevent damage to existing trees, with an exclusion area around the trees. It also looks at defining a root protection area and requires consideration when compulsory work is carried out within the root protection area.

4.3 Amphibians

No further work is recommended with regards to amphibians, and great crested newts in particular.

4.4 Reptiles

The following precautionary mitigation strategy is proposed to minimise any potential impacts: it is recommended to prepare the development site using habitat manipulation as below:

- Should it need to be impacted, the existing rubble and earth bund should first be trimmed and dismantled outside the reptile hibernation period (taken to be November to March inclusive);
- The locations of the new lodges and any other work areas should be mowed using hand held machinery only¹¹ (to 15cm height minimum), during sunny conditions in order to force the animals out of the area;
- A second cut should be given to ground level, 2 days following the first cut, during sunny conditions.

¹¹ strimmer, brush-cutter

4.5 Birds

Although a breeding bird survey is not deemed to be necessary, on the basis that the site contains suitable habitat for breeding birds, consideration must be given to the timing of the clearance works, if any is to take place.

The effect on birds can be avoided by undertaking any vegetation clearance outside of the nesting season (which extends from March – August inclusive¹²) or only after a survey has confirmed the absence of nesting birds¹³. New hedgerow/trees/scrub planted and bird nesting boxes erected as part of the proposed development can replace the habitat lost.

4.6 Hazel Dormouse

Only minimal tree clearance is expected needed. Prior to this taking place, there will be a need to re-check the vegetation for dormice nests prior to cutting back, as per standing advice from Natural England / DEFRA:

Survey methods

You need to be a suitably experienced ecologist with a [dormice licence](#) to survey for dormice. You do not need a licence just to search for evidence of dormice such as hazelnut marks.

You can limit surveys to visual searches for nests and opened nuts if the work only involves losing a small amount of habitat, for example:

- 
- gaps in hedgerows
 - removing a small amount of bramble scrub

For more damaging projects and licence applications, acceptable methods for surveying dormice are:

- using nest tubes
- using nest boxes

You can combine using either nest tubes or nest boxes with checking hazelnuts for dormouse marks.

Once you've found dormice, assume they're present in all suitable habitat on the site.

<https://www.gov.uk/hazel-or-common-dormice-surveys-and-mitigation-for-development-projects>

4.7 Badger

No further work is recommended with regards to badgers.

¹² It should be noted however that certain species are known to breed throughout the year (e.g. collard dove) and remain protected.

¹³ Inspection by a qualified ecologist must first be completed a maximum of 48hrs before clearance works commence. If during the inspection a nest considered to be in use is discovered, works must be delayed until the young have fledged.

4.8 Bats

No further work is recommended with regards to bats. However, as lighting can be detrimental to roosting, foraging and commuting bats¹⁴, the recommendations from the Bat Conservation Trust, titled Bats and Lighting in the UK, should be considered, when designing any lighting scheme for the proposed development (see Appendix C).

4.9 Other Species

There is some potential for hedgehogs to be present on site. Therefore any areas where mammals could be sheltering should be hand searched prior to disturbance. Excavations should not be left open for animals to fall into, or planks of wood should be placed to enable any animals which may fall into such a hole to escape.

4.10 Additional Recommendations: Enhancements

Ecological enhancements should where possible be incorporated into the proposed development to contribute towards the objectives of planning legislation below:

On 27 March 2012, the UK Government published the National Planning Policy Framework (NPPF) which states that "opportunities to incorporate biodiversity in and around developments should be encouraged"(Para 118).

Biodiversity enhancements for the site could include the following:

- Provision of hedgehog nesting boxes¹⁵.
- Provision of ready-made bird boxes (sparrow terrace timber boxes or house martin nests for instance¹⁶ or mix of open-fronted and hole-nesting boxes and constructed from woodcrete)¹⁷.
- Installation of ready-made bat boxes on trees (such as Kent Bat Box¹⁸)¹⁹.
- Provision of bat friendly planting²⁰
- Provision of owl boxes in trees²¹
- Provision of reptile / amphibian hibernacula²².
- Provision of brash/log piles²³.

¹⁴ http://www.bats.org.uk/pages/bats_and_lighting.html

and

<http://www.batsandlighting.co.uk/index.html> for more information

¹⁵ <http://www.hedgehogstreet.org/pages/hedgehog-homes.html>

¹⁶ to benefit these declining urban bird species

¹⁷ In order not to damage trees, free-hanging nesting boxes can be hung from a loop or hook over a branch. This method avoids the use of nails. It is also helpful to avoid predation.

¹⁸ http://www.teach-organic.org.uk/uploadedfiles/CMS/pdf/bat_box.pdf

¹⁹ It is highly recommended to install bird boxes near bat boxes to avoid birds from using the bat boxes to the detriment to bats.

²⁰ More information can be found here

http://www.bats.org.uk/publications_download.php/231/Encouraging_bats_English_2010.pdf

²¹ More information can be found here <http://www.barnowltrust.org.uk/infopage.html?id=56>

²² http://www.rspb.org.uk/advice/gardening/reptiles_amphibians/hibernacula.aspx

²³ Brash and log piles will be at least one meter high and two metres in diameter. They will comprise a mix of large and small diameter material. The centre of the pile will be compacted, but the outer part will be un-compacted. They will be located in sunny positions. They will be topped up periodically (for example every five years) with further material.

- Planting of hedges with dormouse friendly species (using native species)²⁴.
- Establish wildflower plug/bulb planting²⁵.
- Consider using grid mesh system (or Ground Reinforcement Grids) with topsoil and seeding with a wildflower species mix, to car parking areas and new access drives to retain some vegetation as well as drainage, or Gravel turf²⁶.

Priority should be given to species present on the Kent BAP species list, which include great crested newt, common toad, viviparous lizard, slow-worm, grass snake, adder, house sparrow, tree sparrow, hedgehog, noctule, soprano pipistrelle, brown long-eared bat, brown hare, water vole, harvest mouse, dormouse, otter as well as many more species (see <http://www.kentbap.org.uk/habitats-and-species/priority-species/>).

²⁴ Possible species, which also provide food for dormice and grow relatively quickly, include bramble *Rubus fruticosus* agg., hawthorn *Crataegus monogyna*, honeysuckle *Lonicera* species, and hornbeam *Carpinus betulus*. Other species include hazel *Corylus avellana*, oak *Quercus* species, blackthorn *Prunus spinosa* and ivy *Hedera helix* (English Nature, 2006).

²⁵ Spring flowering bulbs and plugs of nectar rich flowering plants should be embedded into amenity grassland to increase the biodiversity and amenity value of the grassland and to provide early sources of nectar for insects. Suitable bulbs include Snake's head fritillary *Fritillaria meleagris*, Ramsons *Allium ursinum*, Snowdrop *Galanthus nivalis*, Primrose *Primula vulgaris*, Bluebell *Hyacinthoides non-scriptus*, Wild daffodil *Narcissus pseudonarcissus*, Lesser celandine *Ranunculus ficaria*

²⁶ http://www.schotterrasen.at/e_index.htm

5 References and Bibliography

- Joint Nature Conservation Committee (2003). *Handbook for Phase 1 Habitat Survey: A Technique for Environmental Audit*. JNCC, Peterborough.²⁷

Websites Visited:

- <http://webapps.kent.gov.uk/KCC.KLIS.Web.Sites.Public/ViewMap.aspx>
- <http://www.magic.gov.uk/magicmap.aspx>
- <http://www.kentbap.org.uk/species/>

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²⁷ http://www.jncc.gov.uk/pdf/pub90_HandbookforPhase1HabitatSurveyA5.pdf

Appendix A – Wildlife Legislation & Policy

The following is a summary of wildlife legislation and planning policy which affords protection to plants and animals and seeks to conserve, enhance and restore biodiversity. This section is provided for general guidance only. While every effort has been made to ensure accuracy, this section should not be relied upon as a definitive statement of the law.

For further information, please see:

<https://www.gov.uk/protected-species-and-sites-how-to-review-planning-proposals>
and

<https://www.gov.uk/government/policies/protecting-biodiversity-and-ecosystems-at-home-and-abroad/supporting-pages/species-protection>

Commonly encountered protected species

Many species of plants, invertebrates and animals receive protection under the legislation detailed above. However, of these, the following are the most likely to be affected by development in the southeast:

Species	Legislation
Bats (all species) Dormice Great crested newts Otters Sand lizards and smooth snakes	The Wildlife and Countryside Act 1981 (as amended) & The Conservation of Habitats and Species Regulations 2017. These make it an offence to: • Deliberately or recklessly capture, injure or kill any wild animal of a European protected species • Deliberately or recklessly disturb wild animals of any such species • Damage or destroy their breeding site or resting place • Keep, transport, sell or exchange, or offer for sale or exchange, any live or dead animal, or any part of, or anything derived from these species. Disturbance of animals includes in particular any disturbance which is likely • to impair their ability: -to survive, to breed or reproduce, or to rear or nurture their young, or -in the case of animals of a hibernating or migratory species, to hibernate or migrate; • to affect significantly the local distribution or abundance of the species to which they belong.
Breeding birds	The Wildlife and Countryside Act 1981 (as amended). This makes it

Species	Legislation
(in particular barn owls)	illegal to intentionally kill, injure or take any wild bird and to take, damage or destroy the nest (whilst being built or in use) or eggs.
Adders, grass snakes, common lizards and slow worms	The Wildlife and Countryside Act 1981 (as amended) (intentional killing and injuring only). This makes it illegal to kill or injure these animals.
Water voles	The Wildlife and Countryside Act 1981 (as amended). This makes it illegal to intentionally damage, destroy or obstruct access to any structure or place which water voles use for shelter or protection; it is also an offence to intentionally disturb water voles while they are using these places.
White clawed crayfish	The Wildlife and Countryside Act 1981 (as amended). This makes it an offence to: - intentionally, or recklessly, kill or injure any of the above species, and/or; - sell, or attempt to sell, any part of the species, alive or dead. Advertises that he buys or sells, or intends to buy or sell.
Badgers	The Protection of Badgers Act 1992. This makes it an offence to: - Willfully killing, injures or takes, or attempts to kill, injure or take, a badger. - Cruelly ill-treating a badger, digging for badgers, using badger tongs, using a firearm other than the type specified under the exceptions within the Act. - Interfering with a badger sett by damaging, destroying, obstructing, causing dog a dog to enter a sett, disturbing an occupied sett - either by intent or by negligence. - Selling or offering for sale a live badger, having possession or control of a live badger. - Marking a badger or attaching any ring, tag, or other marking device to a badger.

The Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 (as amended) implements the Birds Directive (1979) and the Berne Convention (1979) into national legislation. The Wildlife and Countryside Act 1981 (as amended) includes a number of Schedules which are reviewed (usually every five years) on which details of the protected species, and their level of protection, are detailed. A detailed summary of the sections of the Wildlife and Countryside Act, along with the

protection afforded under them can be found within Paragraphs 118-122 of ODPM Circular 06/2005 (Circular06/2005)

Full details of the legislation can be found at www.jncc.gov.uk/page-3614 and details of the species listed on the Schedules can be found at:

- Birds www.jncc.gov.uk/PDF/waca1981_schedule1.pdf
- Animals www.jncc.gov.uk/page-1815
- Plants www.jncc.gov.uk/page-1816

There are no licensing functions within the Wildlife and Countryside Act for development activities which may affect a species protected under The Wildlife and Countryside Act 1981 (as amended) and works need to proceed following good practice and if appropriate rely on the 'incidental result of an otherwise lawful operation defence'. However, with regards to the water vole, where translocation of animals is proposed, Natural England does not feel this could be considered the incidental result of other activities and so would not be covered by the defence in the legislation. If there is no alternative to translocation, Natural England may be able to issue a licence to trap and translocate the water voles for the purpose of conservation.

The Countryside and Rights of Way Act 2000

The Wildlife and Countryside Act 1981 was amended by the Countryside and Rights of Way Act (CRoW Act) in 2000. The CRoW Act strengthened the protection afforded to species listed within the Schedules of the Wildlife and Countryside Act by adding 'reckless' to several of the offences and increased the penalties for wildlife offences.

In addition, Section 74 of the CRoW Act introduced a new duty on Government Ministers and Department to further the conservation of biodiversity for habitats and species of principal importance. This was superseded by Sections 40 and 41 of the Natural Environment and Rural Communities (NERC) Act of 2006. Section 40 provides that every public authority must, in exercising its functions, have regard to the purpose of conserving biodiversity. Details of the lists of habitats and species provided for at Section 41 of the NERC act can be found at www.ukbap-reporting.org.uk/news/details.asp?X=45. The ODPM Circular 06/2005 (Circular06/2005) place a clear responsibility on Local Planning Authorities to further the conservation of habitats and species of principal importance where a planning proposal may adversely affect them.

Full details of the legislation contained within the Countryside and Rights of Way Act can be found at www.opsi.gov.uk/acts/acts2000/ukpga_20000037_en_1.

The Protection of Badgers Act 1992

The legislation affording protection to badgers is primarily concerned with animal welfare and the need to protect badgers from activities such as baiting and deliberate harm. The Protection of Badgers Act 1992 makes it an offence to:

- Wilfully kill, injure, take, possess or cruelly ill-treat a badger, or attempt to do so;
- To intentionally or recklessly interfere with a sett (this includes disturbing badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).

As with The Wildlife and Countryside Act 1981 (as amended), there are several defences to prosecution in the legislation and the text should be consulted for details of these. Penalties

for offences include fines up to £5,000, plus up to six months imprisonment for each illegal sett interference, or badger death or injury.

Full Details of the legislation can be found at
www.opsi.gov.uk/ACTS/acts1992/ukpga_19920051_en_1.

Conservation of Habitats and Species Regulations 2017 (SI 2010/490) came into force (the "2010 Regulations").

From 1st April 2010, these are now the principal means by which the Habitats Directive is transposed in England and Wales. This updates and consolidates all the amendments to the Regulations since they were first made in 1994.

The 2010 Regulations implement the European Habitats Directive into national legislation. Details of those species (often referred to as European protected species or EPS) which receive protection under these regulations can be found in Schedule 2 of the 2010 Regulations.

Full details of the legislation can be found at
http://www.opsi.gov.uk/si/si2010/uksi_20100490_en_1

The Regulations state that:

Part 3 - 41.—

(1) A person who:

- (a) deliberately captures, injures or kills any wild animal of a European protected species,
- (b) deliberately disturbs wild animals of any such species,
- (c) deliberately takes or destroys the eggs of such an animal, or
- (d) damages or destroys a breeding site or resting place of such an animal,

is guilty of an offence.

(2) For the purposes of paragraph (1)(b), disturbance of animals includes in particular any disturbance which is likely:

(a) to impair their ability:

- (i) to survive, to breed or reproduce, or to rear or nurture their young, or
- (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate;

Or

(b) to affect significantly the local distribution or abundance of the species to which they belong.

(3) It is an offence for any person:

- (a) to be in possession of, or to control,
- (b) to transport,
- (c) to sell or exchange, or
- (d) to offer for sale or exchange, anything to which this paragraph applies.

(4) Paragraph (3) applies to—

- (a) any live or dead animal or part of an animal—
 - (i) which has been taken from the wild, and

- (ii) which is of a species or subspecies listed in Annex IV(a) to the Habitats Directive; and
 - (b) anything derived from such an animal or any part of such an animal.
- (5) Paragraphs (1) and (3) apply regardless of the stage of the life of the animal in question.
- (6) Unless the contrary is shown, in any proceedings for an offence under paragraph (1) the animal in question is presumed to have been a wild animal.
- (7) In any proceedings for an offence under paragraph (3), where it is alleged that an animal or a part of an animal was taken from the wild, it is presumed, unless the contrary is shown, that that animal or part of an animal was taken from the wild.
- (8) A person guilty of an offence under this regulation is liable on summary conviction to imprisonment for a term not exceeding six months or to a fine not exceeding level 5 on the standard scale, or to both.
- (9) Guidance as to the application of the offences in paragraph (1)(b) or (d) in relation to particular species of animals or particular activities may be published by—
- (a) the appropriate authority; or
 - (b) the appropriate nature conservation body, with the approval of the appropriate authority.
- (10) In proceedings for an offence under paragraph (1)(b) or (d), a court must take into account any relevant guidance published under paragraph (9).
- (11) In deciding upon the sentence for a person convicted of an offence under paragraph (1)(d), the court must in particular have regard to whether that person could reasonably have avoided the damage to or destruction of the breeding site or resting place concerned.
-

Licences may be obtained to permit activities that would otherwise be unlawful, but they can only be granted for certain purposes. Those purposes include that of preserving public health or public safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequences of primary importance for the environment (Regulation 42(10)). It is the imperative reasons of overriding public interest element of this that is relied upon by those seeking to carry out development where those activities affect a European protected species or their places used for shelter or protection. Even where that purpose is met, however a licence may only be granted where:

- There is “no satisfactory alternative”; and
- The action authorised “will not be detrimental to the maintenance of the population of the species concerned at a favourable conservation status in their natural range”

Natural England issues licences for this purposes under Regulation 44(2)(e).

It is not the responsibility of Natural England staff to decide when a licence is required/recommended. This decision is down to the proposer of the operation who should consider whether, on balance and usually with the assistance of an ecological consultant, the operation would be reasonably likely to result in the commission of an offence under these Regulations. This view should be formed in the light of survey information and specialist knowledge. A licence simply permits an action that is otherwise unlawful. A licence should be applied for if, on the basis of survey information and specialist knowledge, it is considered that the proposed activity is reasonably likely to result in an offence (killing, breeding site destruction, etc – see above).

It should be noted that the protection afforded to species under the UK and EU legislation referred to here is in addition to that provided by the planning system and the applicant must ensure that any activity they undertake on the application site (regardless of whether or not planning permission has been obtained) complies with the appropriate wildlife legislation. Failure to do so may result in fines and, potentially, a custodial sentence.

Biodiversity Action Plans

Biodiversity Action Plans (BAPS) set out actions for the conservation and enhancement of biological diversity at various spatial scales. They consist of both Habitat Action Plans (HAPs) and Species Action Plans (SAPs).

The UK BAP was the UK's response to the 1992 Convention on Biological Diversity in Rio de Janeiro. Following a review in 2007 a list of 1149 priority species and 65 priority habitats has been adopted, which are given a statutory basis for planning consideration under Section 40 of the NERC Act 2006.

The UK Post-2010 Biodiversity Framework was published on 17 July 2012. It covers the period from 2011 to 2020, and was developed in response to two main drivers: the Convention on Biological Diversity's (CBD's) Strategic Plan for Biodiversity 2011-2020 and its 5 strategic goals and 20 'Aichi Biodiversity Targets', published in October 2010; and the EU Biodiversity Strategy (EUBS), released in May 2011. <http://jncc.defra.gov.uk/page-6189>

Further information about Kent BAP can be found here: <http://www.kentbap.org.uk/habitats-and-species/priority-species/>

Red Data Books

British Red Data Books (RDB) are an additional method for classifying the rarity of species, and are often seen as a natural progression from Biodiversity Action Plans.

RDB species have no automatic legal protection (unless they are protected under any of the legislation previously mentioned). Instead they provide a means of assessing rarity and highlight areas where resources may be targeted. Various categories of RDB species are recorded, based on the IUCN criteria and the UK national criteria based on presence within certain numbers of 10x10km grid-squares (see <http://www.jncc.gov.uk/page-3425>). As with Biodiversity Action Plans, where possible, steps should be taken to conserve RDB species which are to be affected by development.

Appendix B – Plates



IMG_4621



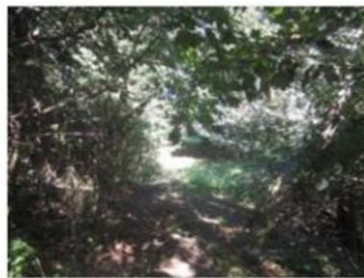
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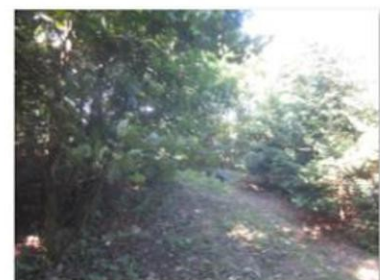
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Appendix C - Bats and Lighting in the UK

Bat Conservation Trust and Institution of Lighting Engineers Summary of requirements

The two most important features of street and security lighting with respect to bats are:

1. **The UV component.** Low or zero UV installations are preferred to reduce attraction of insects to lighting and therefore to reduce the attraction of foraging bats to these areas.
2. **Restriction of the area illuminated.** Lighting must be shielded to maintain dark areas, particularly above lighting installations, and in many cases, land adjacent to the areas illuminated. The aim is to maintain dark commuting corridors for foraging and commuting bats. Bats avoid well lit areas, and these create barriers for flying bats between roosting and feeding areas.

UV characteristics:

Low

- Low pressure Sodium Lamps (SOX) emit a minimal UV component.
- High pressure Sodium Lamps (SON) emit a small UV component.
- White SON, though low in UV, emit more than regular SON.

High

- Metal Halide lamps emit more UV than SON lamps, but less than Mercury lamps
- Mercury lamps (MBF) emit a high UV component.
- Tungsten Halogen, if unfiltered, emit a high UV component
- Compact Fluorescent (CFL), if unfiltered, emit a high UV component.

Variable

- Light Emitting Diodes (LEDs) have a range of UV outputs. Variants are available with low or minimal UV output.

Glass glazing and UV filtering lenses are recommended to reduce UV output.

Street lighting

Low-pressure sodium or high-pressure sodium must be used instead of mercury or metal halide lamps. LEDs must be specified as low UV. Tungsten halogen and CFL sources must have appropriate UV filtering to reduce UV to low levels.

Lighting must be directed to where it is needed and light spillage avoided. Hoods must be used on each lamp to direct light and contain spillage. Light leakage into hedgerows and trees must be avoided.

If possible, the times during which the lighting is on overnight must be limited to provide some dark periods. If the light is fitted with a timer this must be adjusted to reduce the amount of 'lit time' and provide dark periods.

Security and domestic external lighting

The above recommendations concerning UV output and direction apply. In addition:

Lighting should illuminate only ground floor areas. Light should not leak upwards to illuminate first floor and higher levels.

Lamps of greater than 2000 lumens (150 W) must not be used.

Movement or similar sensors must be used. They must be carefully installed and aimed, to reduce the amount of time a light is on each night.

Light must illuminate only the immediate area required, by using as sharp a downward angle as possible. Light must not be directed at or close to bat roost access points or flight paths from the roost. A shield or hood can be used to control or restrict the area to be lit.

Wide angle illumination must be avoided as this will be more disturbing to foraging and commuting bats as well as people and other wildlife.
Lighting must not illuminate any bat bricks and boxes placed on buildings, trees or other nearby locations.