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# **ECOLOGICAL ASSESSMENT** THE HAYCUTTERS, OXTED, SURREY

An Ecological Assessment was undertaken on land at the Haycutters Inn Public House, near Oxted, Surrey. The assessment comprised an Extended Phase I Habitat Survey.

The site contains a number of native perimeter hedgerows. The site also has the potential to support a range of common nesting birds. Other than this, the site does not contain any known ecological constraints.

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# **1.0 Introduction**

An Ecological Assessment was undertaken on land at the Haycutters Inn public house, located on the outskirts of Oxted, Surrey (centred on OS grid reference TQ 391 513).

The purpose of the assessment was to identify the potential for the site to contain important habitats or species, and consider if development would have a significant impact upon local biodiversity.

The application area (from here on known as 'the Site') was visited on 14 December 2015. For the baseline assessment, an Extended Phase I Habitat Survey was undertaken.

The Site is located within a largely rural area. To the north the Site is bounded by the Tanhouse Road, with farmland beyond. To the south and west are agricultural fields. To the east the Site is continuous with a row of domestic properties.

The Site itself covers 0.8 hectares and comprises a main building set back from the Tanhouse Road, and its associated outhouses, car-parking and grounds. The grounds are dominated by grassland habitats bordered by trees and hedgerows. The pub is currently closed but the buildings and grounds are generally well-maintained.

# **2.0 Assessment Methodology**

#### Phase I Habitat Survey

The Extended Phase I Habitat Survey follows the recognized methodology for this type of survey (Joint Nature Conservancy Council 1990), and comprises:

A desk-based assessment for protected species and habitats including consultation with a range of statutory and non-statutory organizations;

The results of a site visit to assess the potential for the site to support protected species;

An annotated map showing all habitats and Target Notes (TN).

The extended Phase I survey is a description of habitats based upon the plant species present and also includes evidence of any legally protected or notable faunal groups. Target Notes are used to show any potential areas of interest, which may or may not require additional study. These are shown on the Phase I habitat plan at **Appendix 1** and described at **Appendix 2**.

The survey visit was undertaken on 14 December 2015. Weather conditions were adequate for survey: dry and overcast. The building was entered during the survey but not all areas were accessible.

The surveyor was Andrew Virtue, who is a Full Member of the Chartered Institute for Ecology and Environmental Management (CIEEM). Andrew has over nine years experience of undertaking Phase I habitat surveys and holds Natural England licenses for surveying both Great Crested Newt and Bats.

# **3.0** Baseline Conditions

A desk study was carried out to identify species or habitats that are considered important in a local context and to identify any species recorded locally that may be associated with the Site. This information can be used to help target groups that need to be considered in more details in order to identify the ecological baseline for the Site.

Most biological records in Surrey are coordinated by the Surrey Biodiversity Information Centre (SBIC), based at the Surrey Wildlife Trust. The local bat group was also consulted. A 1 km search was undertaken for statutory and non-statutory sites. A 1 km search area was used for most protected and notable species, although this was extended to 2 km for bats.

Organization	Source	Date	Information Obtained
Surrey Biodiversity Information Centre (SBIC)	Alistair Kirk	21 December 2015	Protected and Notable Species, Statutory and Non-Statutory Sites
Surrey Bat Group	Derek Smith	15 December 2015	All bat species
Natural England (Nature on the Map - MAGIC)	Natural England website	December 2015	Statutory and Non-Statutory Sites Priority Habitats

#### Table 1: List of consultees

#### Table 2: Desk study results – habitats

Site	Designation	Habitat Type	Location	Distance from Site
Coltsfoot Mill	Site of Nature Conservation Interest (SNCI)	Seasonally flooded grassland	TQ 39599 50887	499 m south- east of Site
Reddings Wood	SNCI	Ancient semi- natural woodland	TQ 38312 50719	815 m south- west of Site

#### Table 3: Desk study summary results – protected species

Species	Designation	Location	Date
Bat species	Conservation Regulations 2010 (Schedule 2), WCA 1981 (Sch 5)	35 records supplied from Surrey Bat Group: Roosts 25, In flight 10:Closest record 300m to west	1990 – present
Great Crested Newt	CR 2010 (Schedule 2), WCA 1981 (Sch 5)	TQ 3952 - 600m north of Site	1992
White- Clawed Crayfish	WCA 1981 (Sch 5)	TQ3950	2003
Bluebell	WCA 1981 (Sch 8)	TQ3850, TQ3851, TQ3852	2010

Species	Designation	Location	Date
Cuckoo	UK BAP Priority Species	TQ3850	1997
Green	Birds of Conservation	TQ3850, TQ4050	1997
Woodpecker	Concern – Red List	TQ4051	2000
			2002
Willow	BOCC – Amber List	TQ3850	1997
Warbler			
Mallard	BOCC – Amber List	TQ3852	1996
Kingfisher	BOCC – Amber List	TQ3852	1996
House	BOCC – Amber List	TQ3852	1996
Martin			
Turtle Dove	BOCC – Red List	TQ3950	2003
Swift	BOCC – Amber List	TQ3950	1997
Swallow	BOCC – Amber List	TQ3950	1997
Grey Wagtail	BOCC – Amber List	TQ4050	1998
Dunnock	BOCC – Amber List	TQ4050	2000
Hedgehog	UK BAP Priority Species	TQ3952	1997
Turtle Dove	UK BAP Priority Species	TQ3950	2003
Common Toad	UK BAP Priority Species	TQ3850	2003

Table 4: Desk study summary	results – notable species
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### Desk Study Summary

#### Habitats - Statutory Sites

There are no statutory protected sites within the search area. The nearest is Godstone Ponds SSSI (TQ 36038 50915), 2.7 km to the west.

#### Non-Statutory Sites

There are two non-statutory site within the 1 km search, the nearest being Coltsfoot Mill SNCI. This 3 ha mosaic of ponds and seasonally flooded tall herb grassland is located 500 m to the south-east of the Site.

#### Species - Bats

The Surrey Bat Group supplied 35 bat records from within 2 km of the Site. None of these records were from within the Site boundary. The closest record was for an unspecified bat 300 m to the west of the Site. Of the submitted records, 25 were roosts or signs of roosts (droppings). The remaining ten were records of bats in flight.

Sixteen of the submitted records were for *Pipistrelle* bats, eight were Brown Long-Eared bats, four were Serotine, and there was a single Noctule and *Daubentons*. Five were unspecified bats.

#### **Other Species**

A number of species records were also returned from Surrey Biodiversity Information Centre (SBIC). A single record for great crested newt (GCN) was returned from TQ 3952. At its nearest point this record is 650 m north of the Site.

The majority of the supplied records were for bird species. Whilst not statutory designations, the Red and Amber lists (British Trust for Ornithology 2015) give an indication of which UK bird species are in decline. Bird species from this list of potential relevance to the Site include green woodpecker, house martin, swift, swallow and dunnock.

# **4.0 Survey Results**

The surveyed area consisted of the main building set back from the Tanhouse Road, extension buildings to the west and south, areas of hard-standing, amenity and grazed grassland, hedgerows and trees.

#### HABITATS

The following habitats were found within or adjacent to the Site:

Buildings;

Trees;

Hedgerows;

Improved grassland;

Amenity grassland;

Hard-standing.

#### Buildings

The main building is set back from the Tanhouse Road (*Target Note 1 and Plates 1-3, Appendix 3*). The building is rendered, set over three levels (see *Plate 2*) and has a sloping and tiled roof. There are two gable ends facing east and west, and two chimney stacks with lead flashing. The upper floor has been converted into habitable rooms and it is not clear if a roof void is present (there are no roof hatches).

To the north-east is a single-storey extension built in the same style as the main building. This extension had a suspended ceiling. To the south of the main building is a single-storey brick extension with a sloping and tiled roof (*Target Note 2 and Plate 3*). These southern extension buildings could only be viewed from the outside as the internal access routes were boarded up. There is also a modern single storey *portacabin*-style extension to the south of the building.

The pub is not currently in use but is in a reasonable state of general repair with most roof and ridge tiles, flashings, barge boards and soffits intact. Exceptions include:

- Missing lead flashing at the base of the western chimney pot;
- Raised roof tiles at the western and eastern ends of the main building (when viewed from the Tanhouse Road).

#### Trees

There are a number of mature and semi-mature trees within and adjacent to the Site. Some of these are standard trees associated with the various hedgerows lining the Site (*TN 5 and 6*). Other trees are located within the Site itself. Those associated with the hedgerows include a number of mature oak (*Quercus* sp.), ash (*Fraxinus excelsior*) and hazel (*Corylus avellana*). There are also some planted conifers.

The trees within the Site include a number of ash, oak, silver birch (*Betula pendula*) and a range of planted conifers. There are two multi-stemmed ash trees and a silver birch located on the western border of the beer garden (*TN 3*). There is also an oak and a multi-stemmed hazel on the southern border of the beer garden. There is a multi-stemmed tree fronting the Tanhouse Road that appears to be a box elder (*Acer negundo*).

#### Hedgerows

There are a number of hedgerows present within and bordering the Site (*Figure 1*). *Table 5* summaries these hedgerows.





Table 5: Hedgerows	within	and	adiacent to the Site
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No	Location	Length	Description	Composition	Hedgerow Regulations (1997)
1	Northern border of field	46m	Outgrown native hedge with mature standards	Hawthorn (Crataegus monogyna), sycamore (Acer pseudoplatanus), ash, oak, dog rose (Rosa canina), bramble (Rubus fructuosa agg.).	Not 'Important' Contains 5 woody species and only 3 associated features, i.e. gaps of less than 10% at least one standard tree where the hedge is 50 metres or less connections with other hedges, ponds or woodland
2	Western border of field	100m	Outgrown native hedge with mature standards	Hawthorn, elder <i>(Sambucus nigra),</i> ash, oak, dog rose, bramble.	Not 'Important' Contains 5 woody species and only 3 associated features, i.e.: gaps of less than 10% connections with other hedges, ponds or woodland at least 2 standard trees where the hedgerow length is over 50 but not more than 100 metres
3	Eastern border of field	74m	Intact native hedge	Blackthorn (Prunus spinosa), hawthorn, hazel, field maple (Acer campestre), oak, bramble.	Not 'Important' Contains 5 woody species and only 2 associated features, i.e.: gaps of less than 10% connections with other hedges, ponds or woodland
4	Western border of beer garden	19m	Gappy hedge dominated by bramble	Hornbeam (Carpinus betulus), bramble.	Not 'Important' Insufficient length
5	Southern border of beer garden	45m	Managed native hedge with standards	Hawthorn, hazel, hornbeam.	Not 'Important' Only contains 3 woody species
6	Eastern border of beer garden	40m	Introduced shrub	Leyland cypress (Cupressus × leylandii).	Not 'Important' Introduced species

#### Poor semi-improved grassland

There is a poor semi-improved grassland field to the west of the Site. Coarse grass species such as perennial rye-grass (*Lolium perenne*) and rough meadow grass (*Poa trivialis*) dominated the sward. Herb species present within the sward included creeping buttercup (*Ranunculus repens*), dandelion (*Taraxacum* agg), and red clover (*Trifolium pratense*).

Additional ruderal herb species were present towards the margins and at the base of the surrounding hedgerows. These included meadow buttercup (*Ranunculus acris*), cut-leaved geranium (*Geranium dissectum*), cow parsley (*Anthriscus sylvestris*), ribwort plantain (*Plantago lanceolata*), common sorrel (*Rumex acetosa*), cleavers (*Galium aparine*), stinging nettle (*Urtica dioica*) and garlic mustard (*Alliaria petiolata*).

#### Amenity grassland

Amenity grassland occupied areas of the Site within the grounds of the pub, such as the former beer garden. The species composition was typical of a regularly managed MG7 amenity grass dominated by perennial rye-grass and other course grasses.

#### Hard standing

Sections of the Site consisted of graveled and compacted hard standing forming parking areas, turning circles and access routes. These areas were generally clear of vegetation.

#### SPECIES

#### Bats

#### External assessment

An external inspection of all the buildings and trees was undertaken for roosting bat potential. Close-focusing binoculars and a high-powered *Clu-lite* torch were used to study all external faces.

A search for bat droppings was made along all external walls, with particular attention being made to window sills. A search was also made for any potential entrance holes that bats may utilize. Missing or lifted ridge or roof tiles were noted, along with any loose flashing, gaps in brickwork and the presence of any holes or cracks large enough to support roosting bats.

#### Internal roof void assessment

The building was entered during the survey but there was no access to the roof void of the main building - no hatches were identified allowing access into the attic (if present). There was also no access to the roof void of the 1<sup>st</sup> floor outbuildings. The extension building to the east of the main house had a suspended ceiling. The extension building to the south was boarded up and inaccessible.

Nonetheless, an assessment of the bat roosting potential of all the buildings was made, using the criteria outlined in *Table 6* below.

SCORE	EXPLANATION
NEGLIGIBLE	No features present with bat roosting potential.
LOW	Some bat-roosting features present (e.g. missing roof or ridge tiles) but potential reduced due to the design or age of the structure. AND/OR the surrounding habitat is sub-optimal.
MODERATE	<ul> <li>Some bat-roosting features present and the structure is considered to be suitable (e.g. has a roof void).</li> <li>However, the structure is well-maintained and any features that are present do not lead to internal cavities (such as roof voids).</li> <li>Good habitat nearby, e.g. river, lake, woodland.</li> </ul>
HIGH	<ul><li>Bat roosting features present, and the structure is of an age and style that often supports bats. Features appear to lead to internal cavities.</li><li>Good habitat nearby, e.g. river, lake, woodland.</li></ul>

Using *Table 6*, the main pub building was considered to have **MODERATE** potential for roosting bats. Some bat-roosting features were present. There was missing lead flashing at the base of the western chimney pot, and a number of raised roof tiles at the western and eastern ends of the main building (when viewed from the Tanhouse Road).

However, the structure is well-maintained and any features that are present do not appear to lead to internal cavities (such as the roof void, if present).

All single-storey extensions were considered to have **NEGLIGIBLE** potential for roosting bats. The eastern extension building was well-maintained with all roof and ridge tiles intact. The southern extension building consist of two adjoined structures (see *Plate 3*). These buildings did not have a roof void - a skylight can clearly be seen extending to the top of the roof space in *Plate 3*. There were also no external features indicating the potential presence of roosting bats.

None of the trees that are subject to proposed works had any potential for roosting bats. Winter leaf-loss allowed for a good viewing of all the trees and their canopies, and no bat roosting features were noted. A number of the perimeter trees did have bat roosting potential, but these will not be affected by the proposed works.

#### Badger

Some of the habitats within the Site were considered to have potential for badger. The dense hedge-lines and connectivity to open farmland meant that the presence of badgers could not be ruled out prior to survey. However, no evidence of any badger activity was found during the survey. Winter die-back allowed for a good viewing of all hedgerows and ground habitats. As a result the absence of badger from the Site can be reasonably concluded.

#### Amphibians (including GCN)

Aerial maps show the presence of a single large pond from within 250 m of the Site. This pond is located 35 m to the north at TQ 39078 51408.

The pond was accessed during the survey and was subjected to a Habitat Suitability Index (HSI) score pond (see *Appendix 4*). The results suggest that this pond may be suitable to GCN. Results from the desk study suggest that GCN are present in the local area, although the records are old and somewhat vague (only a four-figure grid reference was supplied).

If GCN are present within this pond the presence of the Tanhouse Road would act as a potential barrier to GCN dispersal into the Site. The pond is also surrounded on all sides by optimal GCN habitat (rough pasture, woodland). The habitats within the Site are variable. Those surrounding the building are sub-optimal for GCN (hard-standing, amenity grassland). The perimeter hedgerows and trees have more value.

It is concluded that GCN may be present in the local area, but that they are very unlikely to be on the Site. Their absence from the Site can therefore be reasonably concluded.

#### Reptiles

No suitable habitat exists within the Site for reptile. As a result the absence of reptiles from this Site can be reasonably concluded.

#### Birds

Whilst no bird nests were found during the actual survey, there is some suitable habitat for a range of common bird species typical of a garden setting. The hedgerows and semi-mature trees offer the best habitat for bird-nesting potential. The overhanging eaves of the main pub building to the north of the Site facing Tanhouse Road have the potential to support house martin, although no actual nests were seen.

#### Other faunal species

Brown hare may occasionally use the Site. No evidence of any other protected mammal was recorded during the survey. The Site had no appropriate habitat for any other rare or notable mammal species.

#### Invasive plants

No signs of Japanese knotweed (*Fallopia japonica*) or any other invasive plant was noted during the survey.

# **5.0 Evaluation and Recommendations**

#### Evaluation

The Site contains a number of native perimeter hedgerows. The Site also has the potential to support a range of common nesting birds. Other than this, the Site does not contain any known ecological constraints.

#### Recommendations

#### Habitats

The perimeter hedgerows and associated trees represent the highest ecological value habitats within the Site. Hedgerows are a UK Biodiversity Plan Priority Habitat.

The proposed Landscape Layout 3350.01A (DEP December 2015) shows that sections of hedges 3 and 4 (*Figure 1*) will be lost to the development. Neither of these hedgerows have been assessed as being '*Important*' under the *Hedgerow Regulations (1997)*. Nonetheless the loss of these habitats has been mitigated for by a planting scheme that results in a net gain for native hedgerows within the Site.

New hedgerows will be created throughout the Site that will contain a species-rich mix representative of those currently present. In addition, the incorporation of all hedges within the Site into a long-term management plan that will include rotational hedgelaying will ensure that the ecological quality of these hedgerows will be improved over time.

#### Bats

It is recommended that the new building incorporates bat roosting features. Ideally this would allow entry into the roof void, but if not then a *Schwegler 1FR* integral bat box or a *Schwegler 1FQ* external bat box should be erected on a suitable face of the pub building. This should be in a quiet and undisturbed area, without external illumination. See **Appendix 5**.

#### Nesting birds

All nesting birds are fully protected under the Wildlife & Countryside Act (1981, as amended). Any tree clearance must take place outside the recognized bird-nesting season (which is 1 March – 31 July inclusive).

# 6.0 Conclusion

The Site contains a number of native perimeter hedgerows. The Site also has the potential to support a range of common nesting birds. Other than this, the Site does not contain any known ecological constraints.

#### Constraints to Survey

The survey was undertaken during the winter months, which is not considered optimal for vegetative surveys. However, the habitats within the Site are commonplace.

In terms of protected species, it can actually be of benefit to survey at this time of year. Assessing habitat for the potential presence of roosting bats and badger is best done when the trees are not in leaf, as it allows unimpeded views of the canopy and ground layer.

# References

Bat Conservation Trust (2012). Bat *Surveys, Good Practice Guidelines*. Bat Conservation Trust.

BTO (2015) Birds of conservation concern 4 www.bto.org/science/monitoring/psob

English Nature (2001) *Great crested newt mitigation guidelines*. English Nature, Peterborough.

English Nature (2004) Bat Mitigation Guidelines. English Nature, Peterborough.

Institute of Ecology and Environmental Management (2006) *Guidance on Survey Methodology).* IEEM.

Joint Nature Conservation Committee (1990) *Handbook for Phase I habitat survey: A Technique for Environmental Audit.* 

Joint Nature Conservation Council (2004) Bat Workers Manual. Third Edition.

Natural England (2013) Nature on the Map http://www.natureonthemap.naturalengland.org.uk/#

Stace, C. (1997) New Flora of the British Isles. Cambridge University Press.

# Appendices

# Appendix 1: Phase I Habitat Plan



### Appendix 2: Target Notes

Target Note Number	Description	Reason for inclusion
TN1	Main building and eastern extension	Assessed for bat roosting Potential
		Assessed for house martin and swallow potential
TN2	Outbuildings to south	Assessed for bat roosting potential
TN3	Mature trees within Site	Assessed for bat roosting potential
TN4	Native hedgerow	Assess for number of woody species
TN5	Mature trees and western hedgerow	Assessed for bat roosting potential & badger signs
TN6	Mature trees and northern hedgerow	Assessed for bat roosting potential & badger signs

### Appendix 3: Site photos

### Plate 1: Northern aspect of main building



Plate 2: Western aspect of main building



Ecological Assessment

Plate 3: Single storey buildings to rear (south)



Plate 4: Former beer garden to rear (south)



Ecological Assessment

Plate 5: Field to south-west of Site



Plate 6: Northern boundary of field



### Appendix 4: Habitat Suitability Index

### **Great crested newt Habitat Suitability Assessment (HSI)**

#### **1.0 Introduction**

A habitat suitability assessment was carried out on a pond close to the Site boundary using the revised great crested newt habitat suitability index (HSI) by the National Amphibian and Reptile Recording Scheme (NARRS, 2008, based on Oldham et al, 2000). See *Plate 1.* 

#### Plate 1: Tanhouse Road Pond



Whilst a HSI is not a substitute for a full great crested newt survey, it does provide a very useful indication of the likely presence of great crested newts (GCN) and this combined with knowledge of the area, local records centre information and an assessment of the site allows a reasonable estimate of the chances of great crested newts being found in and around the proposed development area.

**Ecological Assessment** 

### 2.0 Methodology

Ten features are assessed under the HSI and for each feature a score of between 0 and 1 is allocated. The 10 features are described in Table 1 below, with a score of 1.0 indicating the greatest suitability for great crested newts.

Table 1: the ten features used for assessment und	ler a HIS
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Code	Feature	
S1	Location	
S2	Pond area	
\$3	Pond drying out/permanence	
S4	Water quality	
S5	Pond shading	
S6	Number of waterfowl	
S7	Number of fish	
S8	Pond density	
S9	Terrestrial newt friendly habitat	
S10	Macrophyte content	

Table 2: The HSI scoring scale

HSI	Pond suitability for GCN	
<0.5	Poor	
0.5-0.59	Below average	
0.6-0.69	Average	
0.7-0.79	Good	
>0.8	Excellent	

Table 3: Assessed Ponds

Pond Numb	Name er	Grid Reference	Distance from Site	Notes
1	Tanhouse Road Pond	TQ3906951415	30 m	On opposite side of Tanhouse Road

#### 3.0 Results

SI No.	Description	Results	SI Score
1	Location	England – Zone 1	1
2	Pond area	700m2	1
3	Drying	None	0.9
4	Water quality	Poor	0.33
5	Shade	90%	0.4
6	Fowl	Minor	0.67
7	Fish	Possible	0.67
8	Ponds	3	0.9
9	Terrestrial	Good	1
10	Macrophytes	20%	0.5
All scores multiplied			0.0239981
HSI			0.68868
(=A1^(1/10))			
Score			AVERAGE
Category			

Table 4: Tanhouse Road Pond

#### 4.0 Conclusions & Recommendations

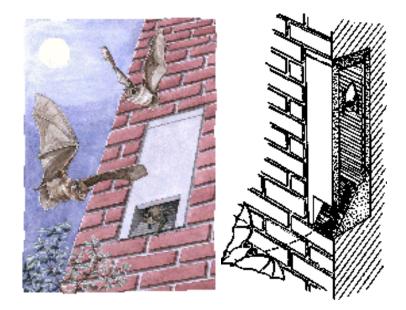
The assessed pond is considered to have AVERAGE potential to support breeding GCN. The quality of the surrounding terrestrial habitat is considered to be good for GCN. However, the quality of the pond itself is not high, as it is heavily over-shaded and there is little aquatic or marginal vegetation.

The pond is located to the north of the application area on the opposite side of Tanhouse Road. This road represents a barrier to potential migration of newts (if present within the pond). The habitats surrounding the pond (a mosaic of mature trees, hedgerows and grazing pasture) are also considered to be of higher quality for GCN than the habitats within the Site.

As a result it is considered very unlikely that GCN would attempt to migrate into the Site from the pond. This combination of factors has resulted in the assessment that further survey for GCN is not therefore recommended for this pond.

### Appendix 5: Potential Bat Roost Features

# Schwegler 1FR Integral Bat Box



Schwegler 1FQ External Bat Box

