



Preliminary Ecological Assessment

Land at Bilsham Road

Yapton

West Sussex

Contents

1.0	INTRODUCTION	4
	BACKGROUND.....	4
	SITE CONTEXT AND STATUS	4
	DESCRIPTION OF THE PROPOSED DEVELOPMENT.....	5
	PLANNING POLICIES.....	6
2.0	METHODOLOGY	9
	DESKTOP STUDY.....	9
	SITE INSPECTION	9
	BADGER SURVEY	10
	TREE ASSESSMENT FOR BATS.....	11
	HABITAT SUITABILITY FOR REPTILES.....	13
	HABITAT SUITABILITY FOR DORMICE.....	13
	HABITAT SUITABILITY FOR WATER VOLES	13
	LIMITATIONS	14
3.0	RESULTS	14
	DESKTOP STUDY.....	14
	<i>Designated sites and habitats</i>	14
	<i>Protected Species</i>	16
	EXTENDED PHASE 1 HABITAT SURVEY	17
	BADGER SURVEY	20
	TREE SURVEY FOR BATS	20
	HABITAT SUITABILITY FOR REPTILES.....	21
	HABITAT SUITABILITY FOR DORMICE.....	21
	HABITAT SUITABILITY FOR WATER VOLE	21
	OTHER SPECIES	24
4.0	DISCUSSION.....	24
	ECOLOGICAL VALUE OF THE SITE AND RECOMMENDATIONS	24
	PROTECTED SPECIES.....	26

<i>BADGERS</i>	26
<i>TREE SURVEY FOR BATS</i>	27
<i>REPTILES</i>	31
<i>DORMICE</i>	32
<i>WATER VOLE</i>	32
<i>OTHER SPECIES</i>	34
RECOMMENDATIONS	34
GENERAL ECOLOGICAL ENHANCEMENTS	34
5.0 CONCLUSIONS	38
6.0 REFERENCES	40
APPENDIX 1: PHOTOGRAPHS	41
APPENDIX 2: HABITAT MAP	42
APPENDIX 3: BIOLOGICAL RECORDS	43

LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.

This report provides a snap shot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited or the site supports habitats which are densely vegetated only dominant species maybe recorded.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

- 1.1 The Ecology Partnership was commissioned by Gleeson Strategic Land to undertake a preliminary ecological assessment (PEA) of land at Bilsham Road, Yapton. The assessment included an extended Phase 1 habitat survey.
- 1.2 The site had previously been surveyed in June 2014 and with a further survey in October 2015 survey when the offsite ditches were additionally surveyed for their potential to support water vole, and ponds were re assessed in the wider landscape. An additional parcel of land was surveyed in August 2016. This report covers the whole of the application site.
- 1.3 This report presents the findings of the ecological surveys in and around the site, which aims specifically to assess the site's potential to support protected species and habitats. Potential mitigation measures and recommendations for the site will be included within this report.
- 1.4 Section 2 of this report sets out the methodology of the survey. In Section 3 the results of the desk and field survey are presented. The discussion and implications for development are found in Section 4. Finally, conclusions are provided in Section 5.

Site Context and Status

- 1.5 The site is situated along the southern boundary of the West Sussex village of Yapton. The site is set within a semi-rural landscape surrounded by agricultural land as well as commuter towns and villages. The immediate surroundings consist of residential dwellings to the north and east, and arable fields with hedgerows to the south and west. The site is currently dominated by arable land, which at the time of survey, was covered by bare ground.

- 1.6 The red line boundary is shown in the figure below



Figure 1: Approximate red line boundary and survey boundary

Description of the Proposed Development

- 1.7 The development is for up to 229 units and associated car parking, infrastructure and open space provision. The mature tree lines around the edges of the fields are largely being retained within the scheme. Open space includes areas for SUDs, wildlife provisions and potentially allotments.

Planning Policies

1.8 National and local planning policies may have an effect on the proposed development. The following paragraphs identify relevant planning policies and discuss these in the context of the site.

1.9 Under the NERC Act (2006) *“Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity”*. In order to comply with this ‘Biodiversity Duty’, planning decisions must ensure that they adequately consider the potential ecological impacts of a proposed development.

1.10 In compliance with Section 41 of the NERC Act, the Secretary of State has published a list of species and habitats considered to be of principle importance for conserving biodiversity. These were known as BAP habitats and species. The UK BAP lists of priority species and habitats remain an important and valuable reference certainly at county levels. However, the UK Post 2010 Biodiversity Framework (published 2012) has succeeded BAP. It was produced by JNCC and Defra, on behalf of the Four Countries' Biodiversity Group (4CBG), through which the environment departments of all four governments in the UK work together to achieve the ‘Aichi Biodiversity Targets’ and the aims of the EU biodiversity strategy.

1.11 National policy guidance is provided by National Planning Policy Framework (NPPF), which sets out the Government's planning policies for England and how they should be applied. Section 11 of the document is entitled ‘Conserving and Enhancing the Natural Environment’. This section highlights the following:

‘The planning system should contribute to and enhance the natural and local environment by:

- Protecting and enhancing valued landscapes, geological conservation interests and soils;*
- Recognising the wider benefits of ecosystem services;*

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- *Minimising impacts on biodiversity and providing net gains in biodiversity where possible, contributing to the Government's commitment to halt the overall decline in biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;*
 - *Preventing both new and existing development from contributing to or being put at unacceptable risk from, or being adversely affected by unacceptable levels of soil, air, water or noise pollution or land instability; and*
 - *Remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate'*

1.12 In addition to this the following paragraphs are also considered to be relevant:

'In preparing plans to meet development needs, the aim should be to minimise pollution and other adverse effects on the local and natural environment. Plans should allocate land with the least environmental or amenity value, where consistent with other policies in this Framework.'

1.13 The development site comes under the jurisdiction of Arun District Council. The Local Plan was adopted in 2003. The 2011-2031 Local Plan is still emerging and therefore holds limited weight. The following policies from the adopted Local Plan (2003) have been identified as being relevant to development of the site and conservation of protected species:

1.14 *POLICY GEN28 Trees and Woodlands*

Development will not be permitted if it would damage or destroy one or more trees protected by a tree preservation order, identified as ancient woodland or in a conservation area unless:

- *the removal of one or more trees would be in the interests of good arboricultural practice; or*
- *the benefits of the proposed development outweigh the amenity value of the protected trees.*

Conditions may be used to ensure that, for any trees which are removed as part of a development, an equivalent number are planted on the site.

1.15 *POLICY GEN29 Nature Conservation Across the District*

Development will only be permitted on sites which contain semi-natural habitats, features of nature conservation interest, or within wildlife corridors, where these can be largely retained and sympathetically incorporated into the scheme. Legal agreements may be used to offset the loss of, or impact on, any nature conservation resource present on the site prior to development.

1.16 *POLICY AREA14 Sites of National Importance for Nature Conservation*

Proposals for development in, or likely to affect (directly or indirectly) Sites of Special Scientific Interest will be subject to special scrutiny. Where such development is likely to have an adverse effect, it will not be permitted unless the reasons for the development clearly outweigh the nature conservation value of the site itself and the national policy to safeguard the national network of such sites.

Where the site concerned is a National Nature Reserve, a site identified by the Nature Conservation Review or Geological Conservation Review, particular regard will be paid to the national importance of that site.

Where development is permitted, harm to the nature conservation interest must be minimised. The use of conditions or planning agreements will be considered to ensure the protection and enhancement of the nature conservation interest, and to provide appropriate compensatory or mitigation measures and site management.

1.17 *POLICY AREA15 Sites of Local Importance for Nature Conservation*

Proposals for development in, or likely to have an adverse effect (directly or indirectly) on a Local Nature Reserve, Site of Nature Conservation Importance (including ancient woodlands or wildlife corridors) or Regionally Important Geological/Geomorphological Site will not be permitted unless it can be demonstrated that reasons for the proposal outweigh the need to safeguard the nature conservation value of the site/feature. Where development is permitted which would damage the nature conservation value of the site/feature, such damage should be kept to a minimum.

Conditions or planning obligations will be used to secure necessary compensatory or mitigation measures, enhancement and site management.

Where appropriate, the Authority will consider the use of legal agreements to provide appropriate compensatory measures, enhancement and site management.

- 1.18 This report aims to address the requirements as set out in the above policies. The site is not located on or adjacent to any SSSIs, or other statutory designated sites for nature conservation. The ecology surveys undertaken by the Ecology Partnership have been undertaken to ensure that the nature conservation value of the site has been characterised and local and national planning policies are addressed. The report has been produced with reference to current guidelines for preliminary ecological appraisal (CIEEM 2013) and in accordance with BS 42020:2013 Biodiversity – Code of Practise for Planning and Development.

2.0 Methodology

Desktop Study

- 2.1 A desk top study search was completed using internet-based mapping service (www.magic.gov.uk) for statutory designated sites and two internet-based aerial mapping services (www.multimap.com and maps.google.co.uk) were used to understand the habitats present in and around the survey area and habitat linkages and features (such as ponds, woodlands etc.) within the wider landscape. Records for the site and local area (up to 2km) were purchased from the Sussex Biological Records Centre.

Site Inspection

- 2.2 The Ecology Partnership ecologists Bonnie McBride BSc (Hons) MSc and George Rockell BSc (Hons) undertook an extended Phase 1 habitat survey, which included assessing the site for the potential for badgers, reptiles, water vole and other protected species on 29th October 2015 and on the 16th August 2016. The surveyor identified the habitats present, following the standard 'Phase 1 habitat survey' auditing method developed by the Joint Nature Conservancy Council (JNCC, 2010). The site was

surveyed on foot and the existing habitats and land uses were recorded on a map. In addition, the dominant plant species in each habitat were recorded, as was any evidence of protected species and the habitat suitability for reptiles. The potential for the site to support protected species was also assessed.

2.3 The likelihood of occurrence of a particular species is ranked as follows and relies on the current survey:

- Unlikely – while presence cannot be absolutely discounted, the site includes very limited or poor quality habitat for a particular species or species group. The site may also be outside or peripheral to known national range for a species
- Low – on-site habitat of poor to moderate quality for a given species/species group. Presence cannot be discounted on the basis of national distribution, nature of surrounding habitats, habitat fragmentation, recent on-site disturbance etc
- Medium – on-site habitat of moderate quality, providing all of the known key-requirements of given species/species group. Factors limiting the likelihood of occurrence may include small habitat area, habitat severance and fragmentation, disturbance
- High – on site habitat of high quality for a given species/species group. Good quality surrounding habitat and good connectivity
- Present – presence confirmed from the current survey or by recent, confirmed records

Badger Survey

2.4 A badger survey was undertaken at the site to assess if badgers were using the area and if any setts were located on the site and 30m away from the site that might constrain development. The evaluation of badger activity was based on methodology developed for the National Survey of Badgers (Creswell et al., 1990) and includes searching for badger field signs such as setts, badger pathways, tracks (paw prints), dung piles with latrines, badger hairs and feeding signs such as snuffle holes.

2.5 During the survey, all habitats potentially suitable for badgers were systematically examined for evidence of badger activity including:

- Setts: several sett types may be present within a social group territory, ranging from a single hole to numerous interconnecting tunnels. Setts can be categorised into main, annexe, subsidiary and outlier (Wilson *et al.*, 1997).
- Latrine sites: badgers characteristically deposit dung in pits, which may be located along the boundaries and within the social group territory. These sites serve as means of inter- and intra-group communication.
- Paths and runs: well used routes between setts and/or foraging areas. Often used by generations of badgers.
- Snuffle holes: areas of disturbed vegetation often formed by badgers foraging for ground dwelling invertebrates such as earthworms and larvae and the underground storage organs of plants.
- Hair: often found among spoil and bedding outside entrances to setts or snagged on fences (such as barbwire) along well-used runs.
- Footprints: easily distinguishable from other large mammal species. Often found along paths and runs or in spoil outside sett entrances.

Tree Assessment for Bats

2.6 As well as roosting in buildings, bats can use trees to rest, give birth, raise young and/or hibernate. Roosts may be found in the following features:

- Woodpecker holes, natural cracks and rot holes in trunks and branches
- Trunk and branch splits.
- Hollow sections of trunk and branches.
- Loose bark.
- Cavities beneath old root buttresses and coppice stools.
- Dense epicormic growth.
- Dense ivy cover.

2.7 Veteran trees typically exhibit many of these features and should usually be regarded as sites with clear potential, but any tree possessing one or more such feature, may

host bats. Any tree species can be suitable but oak and beech often seems to be the preferred option. However, bats rarely restrict themselves to one tree. They change their roost sites frequently, sometimes every two to three days, looking for small differences in temperature and humidity.

2.8 Roosts of bats in trees may be identified from the following field signs:

- Black stains beneath cracks, splits and other features where bat droppings have fallen;
- Dark marks at entrance points where bats have rubbed against the wood and left natural body oils;
- Feeding remains beneath roosts, such as insect wings;
- Chattering of bats;
- Bat droppings under access points;
- Scratch marks around a feature (cavity or split) caused by bat claws;
- Urine stains below the entrance or end of split;
- Large roosts or regularly used sites may produce an odour;
- Flies around the entrance, attracted by the smell of guano.

2.9 Trees on site with potential for roosting bats will be classified according to the table below, taken from *Bat Surveys: Good Practice Guidelines*, Bat Conservation Trust, 2012.

Table 1: Protocol for visual inspection of trees due to be affected by arboricultural work to assess the value of the trees to bats. Taken from Table 4.1 within the 'Bat Surveys for Professional Ecologists: Good Practice Guidelines, 3rd edition (2016)'.

Suitability	Description - Roosting habitat
Negligible	Negligible habitat features on-site likely to be used by roosting bats.
Low	A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential.
Moderate	A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
High	A tree with one or more potential roost sites that are obviously suitable

	for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
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Habitat Suitability for Reptiles

2.10 Habitat surveys were carried out to assess the potential of the site to hold populations of reptile species. This involved looking for the presence of factors that would increase the suitability of the site for reptiles such as:

- Scrub and grassland (long sward) mosaic across the site;
- Features that can be potential hibernation sites for common reptiles such as log piles;
- Grass tussocks within the grassland that can act as shelter and burrowing sites;
- Water bodies or damp places on site (grass snakes);
- Compost heaps or decaying vegetation (slow worms);
- Features that can act as refugia on the ground such as disused roofing felt.

Habitat Suitability for Dormice

2.11 Woodland and hedgerows were assessed for their potential to support dormice. This involved assessing potential food species, diversity as well as the structure, form and management of features for dormice. Habitat connectivity is also assessed from desk based resources.

Habitat Suitability for Water Voles

2.12 Water voles burrow into the banks of slow moving water bodies, such as ditches, dykes, streams, slow flowing rivers and large ponds. The habitat suitability for this species will include an assessment of the foraging resources, the suitability of the banks for burrowing and the presence of adequate cover / shelter.

Limitations

- 2.13 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation and prediction of the natural environment. The site was visited over the period of one site visit, as such seasonal variations cannot be observed and potentially only a selection of all species that potentially occur within the site have been recorded. Therefore, the survey provides a general assessment of potential nature conservation value of the site and does not include a definitive plant species list.
- 2.14 The protected species assessment provides a preliminary view of the likelihood of protected species occurring on site, based on the suitability of the habitat and any direct evidence on site. It should not be taken as providing a full and definitive survey of any protected species group. The assessment is only valid for the time when the survey was carried out. Additional surveys may be recommended if, on the basis of this assessment it is considered reasonably likely that protected species may be present.

3.0 Results

Desktop Study

- 3.1 A 2km data search was requested from Sussex Biodiversity Records Centre. Information on local SNCIs and LNRs, as well as records of protected and notable species can be found in the tables below. Records have been included from the last ten years, with the closest record and the most recent records included. Further information from the data request is included in the appendix.

Designated sites and habitats

- 3.2 The site does not fall within any statutory designated sites. No designated sites or nature reserves are located within 2km of the site.

3.3 Some areas of BAP Priority Habitat have been located within 1km of site (please see figure 2):

- Deciduous Woodland Priority Habitat – this habitat is found in small areas around the site to the north and east within 250 metres.
- Coastal and Floodplain Grazing Marsh Priority Habitat – 0.8km south of the site.

Map produced by MAGIC on 16th November 2015. © Crown Copyright and database rights [2015]. Ordnance Survey 100022861. Copyright resides with the data suppliers and the map must not be reproduced without their permission. Some information in MAGIC is a snapshot of information that is being maintained or continually updated by the originating



Figure 2: Red line boundary of the site and wider landscape. Blue identified priority habitat as lowland grazing marsh and green identifies lowland deciduous woodland.

Protected Species
Table 2: Records of protected species within 2km of the site

Common Name	Scientific Name	Approximate Distance and Direction	Date of Record	Comments
Great crested newt	<i>Triturus cristatus</i>	2.1km North	2005	
		2.3km South-East	2010	
Slow worm	<i>Anguis fragilis</i>	0.1km South-East	2007	
		0.7km East	2010	
		1.2km North	2010	
		1.5km North-West	2005	
		1.6km North-West	2007	
Common lizard	<i>Zootoca vivipara</i>	0.7km East	2010	
		2km North-West	2005	
Grass snake	<i>Natrix natrix</i>	1km South-West	2008	
		1.8km North	2010	
		2km North	2005	
		2km North-West	2005	
Water vole	<i>Arvicola amphibius</i>	1.5km South-West	2013	Older records from 2003 were found approximately 2km to the northwest and southwest.
Hazel dormouse	<i>Muscardinus avellanarius</i>	2.5km North	2004	
Serotine	<i>Eptesicus serotinus</i>	2km North-West	2007	Identified by droppings
Natterer's bat	<i>Myotis nattereri</i>	0.7km East	2010	
Noctule	<i>Nyctalus noctula</i>	2.1km North	2013	
		0.7km East	2010	
Pipistrelle	<i>Pipistrellus sp</i>	1.1km South-East	2007	
		0.7km North-East	2010	
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	2.1km North-West	05/07/2012	
Common toad	<i>Bufo bufo</i>	0.7km East	2010	

Extended Phase 1 Habitat Survey

- 3.4 The areas within the redline boundary were dominated by arable fields surrounded by grassy buffers and hedgerows, some of which had ditches under them. These fields were covered in bare ground at the time of the survey. The site was divided into 4 main field for ease. See figure 3 below.



Figure 3: The site divided into 4 main field sections.

Arable Land

- 3.5 The arable land was located in fields 1, 2 and 3. These areas did not have vegetation growing in it at the time of the survey, however these fields did have some stubble remaining from the corn that was previously grown here. There were grassy buffers around the fields. These varied in width from half a metre to four metres wide. Species within the grassy buffer included: cocksfoot (*Dactylis glomerata*), perennial ryegrass (*Lolium perenne*), hairy brome (*Bromus ramosus*), Yorkshire fog (*Holcus lanatus*), common couch (*Elymus repens*), meadow barley (*Hordeum brachyantherum*), cow parsley (*Anthriscus sylvestris*), field bindweed (*Convolvulus arvensis*), white deadnettle (*Lamium album*), dandelion (*Taraxacum agg.*), cleavers (*Galium aparine*), creeping thistle (*Cirsium arvense*), common nettle (*Urtica dioica*), creeping buttercup (*Ranunculus repens*), field horsetail (*Equisetum arvense*), scentless mayweed (*Tripleurospermum inodorum*) and field madder (*Sherardia arvensis*).

Hedgerows and Tree lines

- 3.6 The hedgerows on the boundary of the fields 1, 2 and 3 were largely species-poor, and varied in their composition. Some parts of hedge were just low growing bramble (*Rubus fruticosus*) whilst others supported some mature tree stands within them. Further species found within hedgerows across the site include: willow (*Salix sp.*), field maple (*Acer campestre*), blackthorn (*Prunus spinosa*), common lime (*Tilia x europaea*), common hogweed (*Heracleum sphondylium*), honeysuckle (*Lonicera periclymenum*), and curled dock (*Rumex crispus*). Just a few stands of mature English oak (*Quercus robur*) also occurred within some of the hedgerows.
- 3.7 A thick tree line, apart from several large gaps identified along boundary in the south west corner of the site, surrounded field 4. The species which dominated the tree line consisted of: ash (*Fraxinus excelsior*), hawthorn (*Crataegus monogyna*), English elm (*Ulmus procera*), elder (*Sambucus nigra*), willow (*Salix sp.*), English oak (*Quercus robur*) and field maple (*Acer campestre*).

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- 3.8 Alongside the tree line around field 4 was a band of scrub, which was dominated by: brambles (*Rubus fruticosus*), cocksfoot, curled dock, spear thistle (*Cirsium vulgare*), common nettle (*Urtica dioica*), broad-leaved dock (*Rumex obtusifolius*), hedge bindweed (*Calystegia sepium*), butterfly bush (*Buddleja davidii*), upright hedge parsley (*Torilis japonica*).

Ditches

- 3.9 The ditches were associated with the hedgerows and were therefore heavily shaded. Ditches, where present, were located along the rear gardens of the houses along The Millers (field 2) and extend around the corner of the field to the northwest where the ditch stops or continues underground. Parallel to the ditch along The Millers, on the other side of the field (south of field 4) there was another wet ditch that extended south into the wider landscape.
- 3.10 Water was present on the edge of field 2 and 4. Here, the water level was around ankle height and no submerged or bankside vegetation was noted at the time of survey. Previous surveys in 2015 did not identify any submerged vegetation.
- 3.11 All other ditches around the fields were shallow, and completely dry with just a thin layer of leaf litter. The condition and state of the ditches have not changed since the survey carried out in 2014.

Semi-improved grassland

- 3.12 Field 4 was dominated by grassland with bordering scrubland edges and tree lines. The site appears open to public access, numerous dog walkers were passed during the time of the survey. The semi-improved grassland covered the majority of the site. The sward was relatively short and dominated by perennial rye-grass (*Lolium perenne*). Other dominant species identified within the semi-improved grassland consisted of: creeping buttercup (*Ranunculus repens*), greater plantain (*Plantago major*), cocksfoot (*Dactylis glomerata*), common sorrel (*Rumex acetosa*), dandelion (*Taraxacum agg.*), curled

dock (*Rumex crispus*), common birdsfoot trefoil (*Lotus corniculatus*), ribwort plantain (*Plantago lanceolata*), red fescue (*Festuca rubra*) and Yorkshire fog (*Holcus lanatus*).

Badger Survey

- 3.13 No setts or any other field signs of badgers, such as latrines, mammal trails or snuffle holes were found during the survey.

Tree Survey for Bats

- 3.14 There was a large oak on the south-western boundary of field 1 adjacent to field 4. This oak exhibited features associated with potential bat roost with two large cracks, both on the trunk and one of the limbs. These appeared, from the ground, to be of sufficient depth that they may support multiple roosting bats. A third feature was a rot hole located above a small rotted limb. This also appeared to be of sufficient depth to support bats. None of the features were upward-facing and are therefore not likely to suffer from water ingress. Due to the multiple features the tree is considered to have high bat roosting potential.
- 3.15 To the west (located on the borders of field 1 and 4) of the high potential English oak was a willow, which was considered to contain moderate bat roost potential. The willow also contained holes, crevices and split bark, however at a lower frequency of the English oak to the east.
- 3.16 There were other mature trees along three of the field boundaries, with some oak, field maple and ash stands being classed as negligible bat potential trees, meaning that they are considered unlikely to support roosting bats.
- 3.17 Bats are likely to use the hedgerows along the field boundaries in the local area for foraging and commuting, in particular the hedgerows with mature trees within

them. Bats are known to use linear features such as hedgerows and tree lines for commuting between roosting sites and foraging habitats.

Habitat Suitability for Reptiles

- 3.18 The arable fields support a grassy buffer strip which is at least 2 metres wide in most areas, and 3-4 metres in others. The vegetation in these areas is of a long sward height. The grassy buffers and the semi improved grassland field (field 4), in particular together with the adjacent hedgerows and scrub on the boundaries, provide a mosaic habitat that offers a food resource, refugia and hibernation opportunities, and as such is considered suitable habitat for reptiles.

Habitat Suitability for Dormice

- 3.19 The hedgerows and treelines were mainly species-poor and did not feature sufficient diversity in order to support dormice throughout the year. Many of the hedgerows were sparse and had gaps in them thus providing a poor structure. Furthermore, the hedgerows on site were not connected to any areas of significant woodland or extensive and well connected hedgerows or other suitable habitat.

Habitat Suitability for Water Vole

- 3.20 The wet ditches around the edges of the site, as described as above were extremely shallow. Water voles are usually associated with streams and ditches that are deeper and allow the animals to swim. The banks were nevertheless searched for evidence of water voles, however, no feeding stations, droppings, runs or nest holes within the banks were found.
- 3.21 The offsite ditches are marked as drains on OS maps. However, most of these were dry and unsuitable for water vole, again due to the shallow banks and lack of suitable emergent or bank side vegetation.

- 3.22 However, one off site ditch, which is not connected to the site, but lies south of field 2, did support water. This appears to form part of Ryebank Rife. This ditch was culverted in to a cement drainage pipe approximately 60m south of field 2. This ditch had very high, steep banks, of around 2m tall with grass growing across the banks and were considered to be optimal for water vole. The water level was slightly higher than in the onsite ditches, albeit was still considered less than optimal for water vole. The ditch was walked and either side was checked for evidence of water voles, such as burrows, runs and feeding stations, however, none was found.

Great Crested Newts

- 3.23 There were no ponds on site and from OS maps, only one pond was noted within 500m of the redline boundary. Figure 4 highlights the location of the site and both 250m and 500m buffers around the site.
- 3.24 One pond was located on OS Maps in the wider landscape. This pond was located at Staker's Farm, 400m to the north of the site on North End Road. This location was visited during the survey, however, no pond was noted and is therefore presumed to have been filled in. Reviewing the historic aerial mapping, it appears that this pond was filled in approximately 2002.

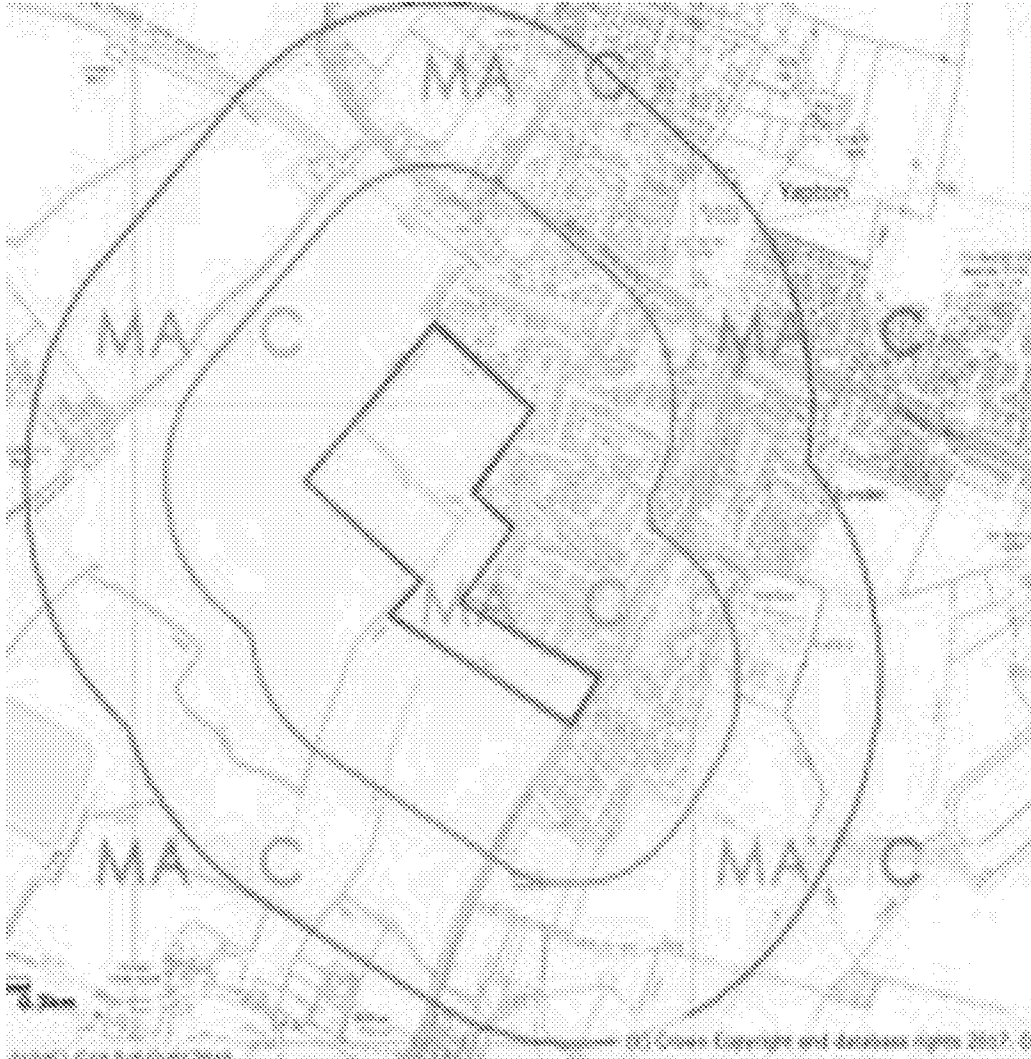


Figure 4: Location of the site and 250m and 500 buffer zones around the site.

- 3.25 One pond is also located to the very north to the east of St Mary's Church, located at St Mary's Meadow. This pond appears in historic aerial imagery, but not in recent imagery. Furthermore, this pond is located over 700m from the site. One large reservoir is located over 570m to the south west of the site. This is considered to be of such a distance from the site as to not warrant further investigation, furthermore, the type of waterbody is considered highly unlikely to support GCNs. Finally one pond is located over 500m to the south of the site, located in the curtilage of Bilsham Manor.

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- 3.26 The ditches located around the site are not considered to be suitable for GCNs largely as these appear to be dry and lacking in submerged or emergent vegetation.
- 3.27 The lack of a network of ponds results in a low likelihood of GCN being present in the local area.

Other Species

- 3.28 Birds are likely to use the trees and bushes in the hedgerows for foraging and breeding. During the PEA flocks of house sparrow (*Passer domesticus*) were noted across the site.
- 3.29 During the survey in 2014, blackbird (*Turdus merula*), great tit (*Parus major*), blue tit (*Cyanistes caeruleus*), crow (*Corvus corone*), wren (*Troglodytes troglodytes*), chaffinch (*Fringilla coelebs*), starling (*Sturnus vulgaris*), song thrush (*Turdus philomelos*) and greenfinch (*Carduelis chloris*) were observed during the site visit.
- 3.30 The site was not considered suitable to support species such as otter and the ditch networks were not considered to be of sufficient size to support such a species.

4.0 Discussion

Ecological Value of the Site and Recommendations

- 4.1 The site is located on the southern outskirts of the village of Yapton in a semi-rural setting. The site is dominated by arable fields and features hedgerow borders along the fields, some including mature trees. The arable land was covered with only bare ground and some stubble at the time of survey, and a grassy buffer bordered some of the field edges.

-
- 4.2 The site does not fall within any statutory designated sites and the nearest SSSI is over 2km from the site. These designated sites will not be directly or indirectly affected by any development on the site as they are separated from the site by main roads and towns and connectivity to the nature reserves is therefore poor. As such local policies AREA 14 sites of national importance for nature conservation and, AREA 15 sites of local importance for nature conservation are not considered within this report as no impacts on such sites are predicted as a result of the proposals.
- 4.3 The tree lines and scrub surrounding the fields, notably around field 4, form an important feature of the wider landscape providing green links across the site and into the wider landscape. It is recommended that the tree line and scrub habitats are maintained and improved where feasible. The retention of the trees and edges within the scheme has been recommended. Policy GEN 28 Trees and woodland seeks to protect ancient woodland, TPOs and trees in conservation areas. There is no ancient woodland on the site or adjacent to the site and understood that there are no TPOs present. As such policy GEN 28 is not considered to be relevant in terms of the habitats on site.
- 4.4 The tree lines and scrub habitats are considered to be of local level interest. These features have potential to support protected species including roosting and foraging bats and nesting birds and may also provide cover for reptiles. It is recommended that these features are retained within any scheme, protecting the nature conservation interest of the site in line with policy GEN 29.
- 4.5 The most dominant habitat within the red line boundary was arable land a further field, field 4, dominated by semi-improved grassland. The grassland was considered as being ecologically valuable as it contained a long sward height, which provides the potential to support protected species such as reptiles.
- 4.6 The ditch networks can be important habitats for a range of wildlife and should be retained on-site, where possible. Enhancement measures can include directing run-off water into the network to increase the ditch water level and provide opportunities for

-
- aquatic floral species to grow to support a range of birds, invertebrates and mammals. Consideration of water flow and water quality must be made due to potential downstream impacts. However, it is considered that with a range of SUDs features within the scheme and best practise measures, including CEMP during construction, that pollution impacts would be negligible.
- 4.7 Tree lines, ditches and areas of scrub should be maintained and enhanced to ensure linkages across the local landscape are still present. Landscape connectivity, through features such as tree lines, hedgerows, ditch networks, allows the free movement of wildlife across the wider area. Potential fragmentation caused by development works can have detrimental impacts, restricting certain species, which require linear features for means of dispersal. As such it is recommended that where possible, tree lines and other such features are maintained and enhanced as part of the proposals.
- 4.8 The site was assessed for its potential to support a range of protected species and these are discussed individually below.

Protected Species

Badgers

- 4.9 No setts or other signs of badgers using the site were found during the survey. The edges of all fields, as well as the banks of the dry ditches, were surveyed. However, due to dense scrub, certain sections were not accessible and therefore not fully assessed for badgers. Along such boundary features is where a latrine or dung pit would be expected to be found and setts are often located in earth banks.
- 4.10 The likelihood of the site currently being regularly used by badgers is considered to be low, although they may commute across the site without leaving any field signs. As no setts or other signs of badgers were found, the site is not considered to be constrained by badgers.

- 4.11 It is recommended that any excavations and trenches associated with construction are either covered at night or supplemented with a means of escape for any badgers that may fall into the excavation whilst foraging. Any open pipes or conduits laid should be blocked off each night to prevent badgers from entering them. If possible, construction work should only take place between dawn and dusk with no late evening work to reduce possible disturbance.
- 4.12 It is always recommended that badger update surveys are undertaken across the site prior to any development works or if there is a lapse in time between the survey and development as badgers may move onto the site in the intervening period.

Tree Survey for Bats

- 4.13 Several potential bat roosting trees were identified on-site. Further surveys are recommended if any potential tree target noted within the survey are planned for removal. This should involve an ecologist aerially inspecting the features identified within the trees using an endoscope. This will provide a more thorough assessment of the features identified from the ground. Features such as holes, which are found to be unsuitable after the aerial influence may influence the re-classification of the tree from moderate to low. Alternatively, a low potential tree may be re-classed as a moderate potential tree if the features are found to be more suitable.
- 4.14 After the aerial inspection, dusk and dawn surveys will be required on any moderate or high potential tree that is planned for removal (Table 3).

Table 3: BCT guidelines, demonstrating the number and type of surveys required depending on the classification of the tree for bat roost potential.

Bat Roost Potential	Recommended surveys
Low	No further surveys required
Moderate	Two separate survey visits. Including one dusk and one dawn
High	Three separate survey visits. Including two dusk and one

	dawn survey.
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4.15 Using The Bat Conservation Trusts document *Bat Surveys Good Practice Guidelines 3rd Edition*, Table 4.1 ‘Guidelines for assessing the potential suitability of proposed development sites for bats, based on the presence of habitat features within the landscape, to be applied using professional judgement’ and Table 8.3 ‘Guidelines on the number of bat activity surveys recommended to achieve a reasonable survey effort in relation to habitat suitability’ the recommended survey effort is as follows. As stated within section 8.2.7 of the latest survey guidelines (2016), the following points need to be taken into account with regard to planning activity surveys:

- Likelihood of bats being present;
- Likely species concerned;
- Numbers of individuals;
- Type of habitat affected;
- Predicted impacts of the proposed development on bats;
- Type and scale of proposed development.

4.16 It is further recommended, as per the Bat Conservation Trust guidelines that transect surveys are also carried out. The habitat suitability for bats is considered to be low, as the majority of the tree lines were species-poor. Furthermore, the site lies within an agricultural landscape where most of the fields are arable land, which is a habitat of low value to bats. As such, it is recommended that one transect survey per season is carried out (spring, summer and autumn) and that a remote Anabat recorder is also deployed once per season, in one location on the transect.

4.17 The installation of bat boxes on suitable mature trees or buildings within the boundary habitats will enhance the site for bats, providing increased opportunities to roost. Bat boxes should be installed with a clear flight path to the entrance with no branches obscuring the entrance. Bat boxes should also be installed so they are south facing, this provides a more constant temperature throughout the daytime, as the box will not be in shadow from the sun.

4.18 Any proposed lighting scheme as part of the development will have to take into account bats in the surrounding area as well as site. All bat species are nocturnal, resting in dark conditions in the day and emerging at night to feed. Many species of bats are known to sample the light levels before emerging from their roost; only emerging for their night's hunting when the light intensity outside reaches a critical level after sunset. Artificial lighting can restrict and alter this natural behaviour, and if a roost site is illuminated it can restrict and shorten the time bats spend foraging at night or completely discourage bats from using an area at all. This needs to be taken into account, with a sympathetic lighting scheme for the development. Recommendations include:

- No potential bat roost should be illuminated by artificial lighting, lighting should be positioned to point away from any roosting site, leaving the entrance and exit points in darkness;
- Lighting should only be installed if there is a significant need;
- Light levels should be kept low where possible;
- Lighting should be avoided near treelines or hedgerows, with light angled away from these areas, bats use linear features such as treelines to commute across the landscape to forage; and
- Lights should have focussed luminance on their target area, preventing light spill and pollution into other areas of the site and local area.

4.19 The tree lines, hedgerows and areas of scrub, which have been identified surrounding the field on-site, and fields within the adjacent land should be retained and enhanced to maintain linkages between the two sites for foraging and commuting bats.

4.20 To enhance the local bat population and provide roosting opportunities, it is recommended that boxes should be hung on mature trees or buildings around the site. Recommended boxes include:

- Schwegler 2F Bat Box – These boxes are attractive to small bats such as pipistrelles and long-eared bats and can be hung on trees (Figure 5).

- Schwegler 2FN Bat Box – This is slightly larger than the 2F and provides opportunities for the larger bats such as noctules. These should be hung on mature trees.
- Schwegler 1FD Bat Box - This box has been designed specifically for smaller bats and provides opportunities as a maternity roost (Figure 5).

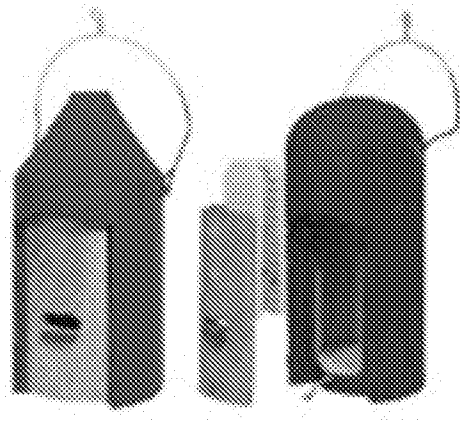


Figure 5: Schwegler 2F (left) and 1FD (right) bat boxes

- 4.21 Incorporating specially designed bat boxes into the design can enhance the habitat on site for bats. Bat boxes should be erected on the trees prior to works starting on site. Suitable bat boxes include a variety of wooden bat boxes, such as an improved cavity box, a double chamber bat box and other wood based varieties. Schwegler boxes have been recommended as these are long-lasting and require no maintenance.
- 4.22 Bat boxes/tubes can also be incorporated into the structure of new buildings. These provide good opportunities for crevice-dwelling species such as pipistrelles. The opening of the bat box/tube will be the only section of the bat box/tube that would be visible. Several of these tubes can be established in a row together providing a good-sized roost space. The bat tubes should be inserted as high up as possible in the brickwork (Figure 6).

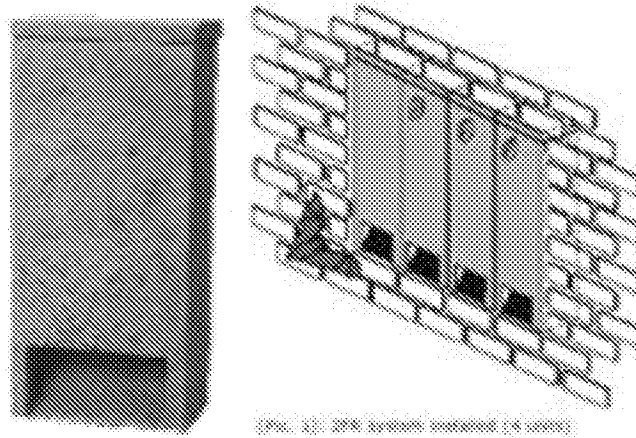


Figure 6: Bat tubes incorporated into the wall of a building to provide roosting space

- 4.23 Further enhancements for bats in the local area can be achieved through the use of native tree planting and landscaping within the development (see general enhancements below).

Reptiles

- 4.24 The strips of grassy buffer which are wide (over 2 metres), in combination with the hedgerows, and field 4, which is dominated by semi improved grassland, are considered to be suitable for reptiles. Common reptiles such as slow worm, common lizard and grass snake may be found here. Furthermore, there are recent records for common reptile species in the local area.
- 4.25 It is recommended that a reptile survey is undertaken to identify whether a population of reptiles is present or to determine likely absence of any reptiles.
- 4.26 For the areas of the site where reptile surveys are recommended, artificial refugia in the form of 1m² roofing tiles will be laid out. After these have bedded in for around a fortnight, these will be regularly checked in suitable conditions and according to Natural England guidelines. This will enable the surveyor to establish presence or likely absence of any reptile species and estimate the population size of any species

present. The results of the survey will then determine the mitigation scheme which will be recommended.

Dormice

- 4.27 The hedgerows are species-poor and contain few mature stands, making them of limited suitability for dormice. Furthermore, the site is poorly connected to any off site suitable habitat, such as woodland, that a dormouse population would require in order to persist. No records for dormice were present in the immediate area, with the nearest record of 2.5km away from the site across several large road networks. Considering these factors, it is considered highly unlikely that dormice are using the site, and the site is not considered to be constrained by dormice. No further surveys are therefore recommended.

Water Vole

- 4.28 Most of the ditches around the site were dry. The ones that were wet were very shallow and devoid of submerged or bankside vegetation and were shallow and shaded. As such, these water features are not considered to provide suitable habitat to support water vole (or otters). Whilst water voles are known to be present in the wider landscape, the lack of suitable food species associated with the ditches and the shallow nature of the banks, reduces the potential for such a species to be present within the ditch network.
- 4.29 The offsite ditch (linked to Ryebank Rife) leading south from the southern field (field 2) was the only ditch in or around the site that was suitable for water vole, although not optimal, due to the low water level. This ditch supported steep and high grassy banks.
- 4.30 All ditches, regardless of how suitable they were, were checked for evidence of water vole, though none was found. No evidence of burrows, feeding sites, droppings and latrines were recorded along any of the ditches.

- 4.31 As such, the site is not considered to be constrained by the presence of water vole. Records were found 1.5km to the south of the site. Water voles have a very small range, however; 70m for females and 130m for males. It is therefore considered unlikely that water vole would travel 1.5km to habitat that is less suitable. No further surveys are therefore recommended.

Great Crested Newt

- 4.32 There are no records for great crested newt in the local area, with the closest being over 2km from the site. The pond that appears on the ordnance survey map located on the opposite side of the B2233, approximately 240m north west of the site, appears to no longer exist, therefore no HSI was carried out. Furthermore, the pond associated with St Mary's Church also appears to have been filled in. This pond was of sufficient distance from the site and separated from the site by significant barriers to dispersal, however. Due to the lack of ponds adjacent to the site or in the local area, it is considered that the site is not constrained by the presence of GCNs. Furthermore, the majority of the site, being in use as agricultural land, is considered to be suboptimum for GCNs.
- 4.33 Ditches run along some of the field boundaries of the site. There was no submerged or bankside vegetation and it was shallow and shaded. As such, these water features are not considered to provide suitable habitat to great crested newt. The lack of emergent and submerged vegetation reduces the potential for species such as great crested newts as there is limited egg laying substrate.
- 4.34 On the whole, the lack of aquatic features and the suboptimal terrestrial habitat for GCNs lead to a very low probability of GCN being found on site. Therefore the site is not considered to be constrained by the presence of GCNs and no further survey work is considered to be necessary.

Other Species

- 4.35 Breeding birds are likely to use the hedgerows on site as nesting habitat. The UK breeding season for most bird species takes place between March and September. Although the recommendation is for the hedgerows and trees to be maintained, it is recommended that if any works affecting the hedgerows on site are to be carried out, these are completed outside of this period.
- 4.36 The long sward within the semi-improved grassland provides suitable conditions for ground nesting birds. Bird surveys are recommended to be undertaken on site. Skylarks are ground nesting birds that could potentially nest within the long grassland on-site. Unless legitimate farming practices are being undertaken, it is illegal to kill, injure or take an adult skylark or take, damage or destroy an active nest. To ensure cross-compliance with the Wildlife and Countryside Act 1981, works affecting the semi-improved grassland should be undertaken outside of the bird breeding season.

Recommendations

- 4.37 The following are recommendations for the need for further surveys;
- Three bat transect surveys should be carried out, in spring, summer and autumn to determine how bats are using the site, and which hedgerows in particular are important and should be protected.
 - Reptile survey should be conducted to identify if reptiles are present on site.
 - Breeding bird surveys should be conducted to assess if farmland birds or other birds of conservation concern are using the site.

General Ecological Enhancements

- 4.38 A number of enhancements can be made to the final development to help reduce potential ecological impacts. It is important to utilise native species of local provenance in landscaping schemes to enhance the ecological value of a development.

-
- 4.39 The hedgerows and mature trees should be maintained and incorporated into the design of the potential development as these provide valuable habitat for species such as birds, invertebrates and some mammals including bats.
- 4.40 It is recommended that additional native species are planted within the hedgerow, in particular in any sparse areas and gaps. Species of benefit to the site would be hazel, beech, sweet chestnut, wild cherry, field rose, hornbeam, field maple and dogwood. These native species will enhance the existing hedgerows and add food sources at various times of year for local wildlife. In order to boost berry crops within existing hedgerows and ensure thick nesting cover is available, it is recommended that where permissions allow, hedgerows be trimmed on a two or three year rotation, rather than annually. Flailing of hedgerows should be avoided, as this practice can damage woody material. For heavy hedges, a circular saw is preferable.
- 4.41 The hedgerows have a relatively good understorey and edge species composition of vascular plants and this should be maintained. To this end, a buffer of around 1 metre either side of the hedgerow is recommended to be maintained and bramble control should be exercised between September and March.
- 4.42 If reptiles are found to be using the site, provision for them should be made in the form of a grassland area or wildflower meadow within the development. This meadow should be located near the boundaries so that it is not isolated from the wider landscape. An amenity grassland area will not be able to fulfil this function, as an area for reptiles must be managed to be of long sward, particularly in the summer months, which means no mowing during May – September. Log and rubble piles should be added to provide hibernacula for species such as common amphibian species and reptile species.
- 4.43 If tree and shrub removal is to be carried out, this should be done outside the nesting bird season.
-

4.44 Bird boxes may be hung on retained mature trees to increase the number of breeding opportunities throughout the site. Recommended boxes include:

- Sparrow terrace – these can be built into houses, as long as there is sufficient dense hedgerow or scrub within 10m of the nest boxes. These are available from Schwegler or from Bird Brick Houses
- Schwegler 1N Deep Nest Box – give added nest protection from predators
- Schwegler 1B Bird Box – general purpose bird box, suitable for many species

4.45 Creation of swales and/or SUDs as part of the development can further enhance the site. These waterbodies should be linked to the wider landscape through the protection and enhancement of tree lines and associated grassland strips. Wetlands and ponds, swales or ditches can be planted to enhance invertebrate species on the site and provide breeding opportunities for great crested newts and other amphibian species. These should be planted with species of ecological value:

- Water mint - (*Mentha aquatica*);
- Common reed - (*Phragmites australis*);
- Soft rush - (*Juncus effuses*);
- Water plantain - (*Alisma plantago-aquatica*);
- Meadowsweet - (*Filipendula ulmaria*);
- Yellow flag iris - (*Iris pseudacorus*).

The incorporation of these in the design of the site will greatly enhance the site for local wildlife. Log piles can be incorporated into the design to encourage invertebrates, as well as hedgehogs and amphibian and reptile species.

4.46 Newly formed areas of amenity grassland, boundaries and vacant spaces post-development as well as retained grassland could be supplemented by integrating a variety of native plant species. Patches of bare soil can be sown with wildflower seed mixes to increase the biodiversity of the site and also offer aspects of aesthetic appeal. Species could include:

-
- Birds foot trefoil (*Lotus corniculatus*)
 - Common vetch (*Vicia sativa*)
 - Common mallow (*Malva sylvestris*)
 - Cowslip (*Primula veris*)
 - Creeping buttercup (*Ranunculus repens*)
 - Dames violet (*Hesperis matronalis*)
 - Evening primrose (*Oenothera biennis*)
 - Field forge-me-not (*Myosotis arvensis*)
 - Fleabane (*Puclicaria dysenterica*)
 - Herb Robert (*Geranium robertianum*)
 - Lady's bedstraw (*Galium verum*)
 - Meadow buttercup (*Ranunculus acris*)
 - Night-flowering catchfly (*Silene noctiflora*)
 - Nottingham catchfly (*Silene nutans*)
 - Oxeye daisy (*Leucanthemum vulgare*)
 - Poppy (*Papavar rhoeas*)
 - Self heal (*Prunella vulgaris*)
 - Spindle (*Euonymous europaeus*)
 - St John's wort (*Hypericum perforatum*)
 - White campion (*Silene latifolia*)
 - Wild basil (*Clinopodium vulgare*)
 - Wild wallflower (*Erysimum cheiri*)
 - Viper's bugloss (*Echium vulgare*)

- 4.47 The development could include a community orchard within an area of open space. Species that could be planted include apples, pears, plums, gages and damsons. The site margins should be planted with additional species such as blackberry and hawthorn. Spring bulbs and wild flower seeds can also be sown in the area around the orchard. Log piles too can be incorporated in this area. An orchard provides opportunities for the local community to become involved in the natural surroundings of their new homes and engages people, providing a new community focus. Orchards

-
- are also BAP habitats and are important for invertebrates and bird, lichens and fungi species alike. Fallen fruit provides good opportunities for badgers, hedgehogs (BAP species) and bats forage in areas of high insect diversity.
- 4.48 It is considered that the use of wildflower edges, the creation and enhancement of hedgerows, the use of wildlife friendly planting within SUDs schemes (ponds and swales) and the creation of a community orchard, that the biodiversity value of the site will be enhanced post development. Currently a large proportion of the site is of limited ecological value due its arable status, which is considered to be a monoculture of limited ecological interest.
- 5.0 Conclusions**
- 5.1 The arable which dominate most of the site are considered to be of limited ecological value, and are unlikely to support protected species. These habitats are a monoculture and provide limited interest for biodiversity.
- 5.2 The field which supports semi improved grassland supports at long sward which may be suitable for ground nesting birds such as skylarks.
- 5.3 The surrounding hedgerows, however, provide much ecological value to the local wildlife community. As such, it has been recommended to maintain and enhance these features as part of any development scheme. The grassy buffer around much of the arable land provides some value at site level to local wildlife, and may support reptiles.
- 5.4 The hedgerow habitat is considered to be optimum for breeding birds. These habitats also provide landscape connectivity, which would allow bats, birds, amphibians, reptiles and mammals to move across the landscape and provide good opportunities for foraging.
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- 5.5 Any works on hedgerow should be carried out outside of the breeding bird season which runs from March to September
- 5.6 A moderate and high potential tree were identified on-site, which contain features considered suitable for roosting bats. it is recommended the trees are maintained, if any works or removal is carried out, this should only be done after a further bat survey.
- 5.7 A transect survey is recommended in spring, summer and autumn in order to establish how bats are using the site and which hedgerows are important for bats.
- 5.8 A reptile survey is recommended for the edges of the arable fields in the locations where there is a suitable grassy buffer as described in this report.
- 5.9 The habitat is unsuitable for dormice due to its structure, composition and poor connectivity to suitable habitat.
- 5.10 No field signs of badgers currently using the site or badger setts were found. The site is not considered to be constrained by badgers.
- 5.11 The site is not considered suitable habitat to support great crested newt, water vole or otter.
- 5.12 Potential ecological enhancements that can be implemented into development plans have been recommended within the report. Recommendations include use of native species within landscaping schemes, including wildflower planting, use of wildlife friendly planting in SUDs schemes and community orchards and the installation of bat and bird boxes on site. These enhancements would provide an increase in biodiversity interest to the site post development.
-

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Oldham R.S., Keeble J., Swan M.J.S. & Jeffcote M. (2000). *Evaluating the suitability of habitat for the Great Crested Newt (Triturus cristatus)*. Herpetological Journal 10 (4), 143-155.

Internet resources:

Google Maps: www.maps.google.co.uk

Magic Interactive Map: www.magic.gov.uk

Appendix 1: Photographs

Photograph 1:
Showing the
character of the
site.



Photograph 2:
Showing
scrub/hedgerow
and stubble on the
field (most
northern field).



Photograph 3:
Showing the wide
hedgerow along
the south-western
border.



Photograph 4:

Showing hedgerow and grassy buffer: optimal habitat for reptiles.

**Photograph 5:**

Showing hedgerow and grassy buffer: optimal habitat for reptiles.



Photograph 6:
High potential oak
tree.



Photograph 7:
Detail of the high
potential oak tree



Photograph 8:
View of the wet
ditch along the
south-western
boundary.



Photograph 9:
View of one of the
dry ditches.



Photograph 10:

View of the off site wet ditch that was most suitable for water vole. The water was still shallow and not deep enough for water vole to swim in, however.

**Photo 11:**

The semi-improved grassland alongside a strip of scrub and tree lines. A path runs around the boundary of the site, used by dog walkers.



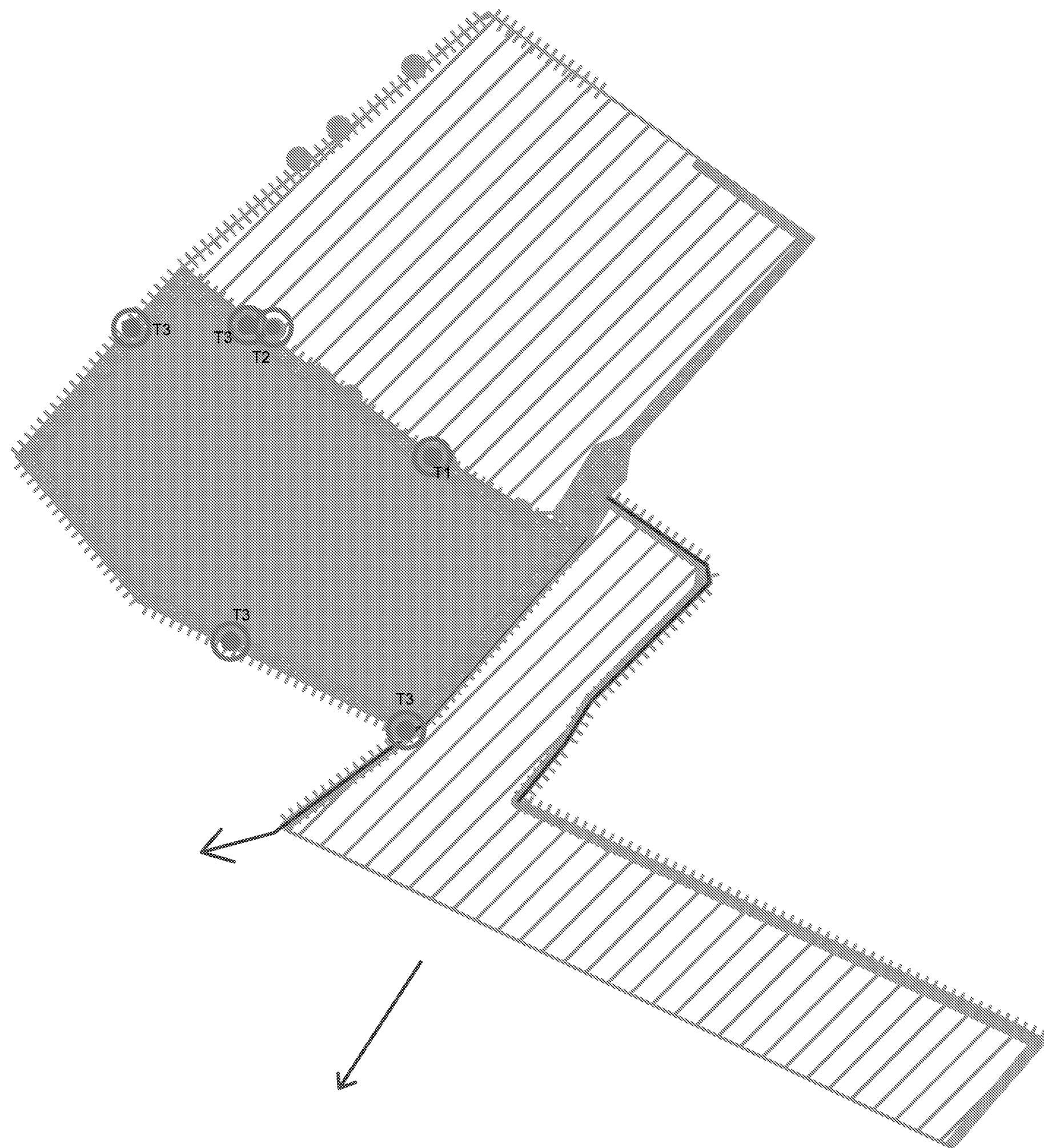
Photo 12:
Low bat potential
ash tree.



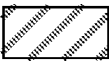
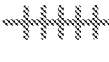
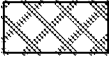
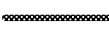
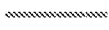
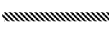
Photo 13:
Low bat potential
dead tree.



Appendix 2: Habitat map



Key

-  Bare Ground/plough arable fields
-  Semi-improved grassland
-  Hedgerow/Treeline
-  Scrub
-  Wet Ditch
-  Dry Ditch
-  Scattered Trees
-  Survey Boundary
-  Target Note 1: High bat roost potential tree
T1
-  Target Note 2: Moderate bat roost potential tree
T2
-  Target Note 3: Low bat roost potential tree
T3

Site: Bilsham Road, Yapton

Client: Gleeson

Surveyor: B. McBride

Drawing Date: 13th November 2015

Drawing Title: Phase 1 Habitat Map

the
ecology
partnership

The Ecology Partnership
Thorncroft Manor, Thorncroft Drive, Leatherhead,
Surrey, KT22 8JB
t 01372 364 133 w www.ecologypartnership.com

Appendix 3: Biological Records

SUMMARY REPORT

Land to the west of Cobham Close, Yapton + 2km radius

02 May 2014 ESD140719 Search Area: SL9901 to SL9904, SL9708
Axxis Tardieu (PJC Ecology)

Protected Species Register (not including bats, badgers, otters or birds)

Number of species recorded 8

European Protected Species

Number of species recorded 11

Bats

Number of species recorded 8

Birds

Number of species recorded 152

Number of BuCC Red list species recorded 28

Number of BuCC Amber list species recorded 60

Number of BSZA Schedule 1 species recorded 31

Number of significant breeding bird records 36

SAP species (not including bats or birds)

Number of species recorded 28

Confidential Records (not including badgers or birds)

Number of confidential records 8

Designated Site Map (ESD/14/219)

Land to the west of Cobham Close, Yapton + 2km radius

Prepared for Alexia Tamblyn (PJC Ecology) - 02/05/2014



**Sussex
Biodiversity
Record Centre**

Woods Mill, Henfield,
West Sussex BN5 9SD
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Key to Map:

-  Enquiry area
-  Species search area
-  SNCI
-  National Park



0 1 2 Km

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Habitat & Natural Features Map (ESD/14/219)

Land to the west of Cobham Close, Yapton + 2km radius

Prepared for Alexia Tamblyn (PJC Ecology) - 02/05/2014



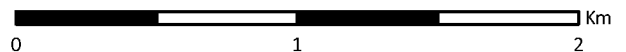
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Key to Map:

- Enquiry area
- Species search area
- Ancient/veteran tree
- Chalk Stream
- Reedbed
- Lowland fen
- Open Water
- Traditional orchard
- Wood-pasture & parkland
- Ancient woodland
- Coastal & floodplain grazing marsh



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The Ecology Partnership Ltd

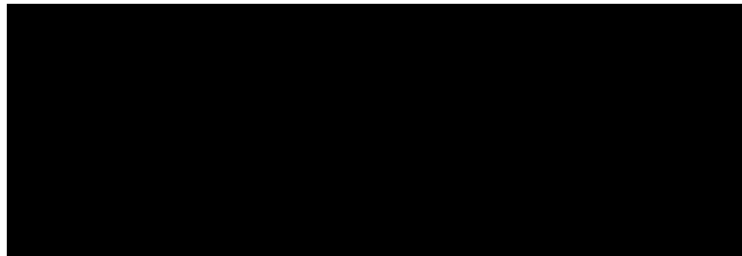
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