



AEWC Ltd

Animal Ecology & Wildlife Consultants

Extended Phase 1 Habitat Survey

Turners Green Road

**Wadhurst
East Sussex
TN5 6TU**

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19-018-P1-v2
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Summary

- AEWCLtd were commissioned by Oast House Ventures on behalf of the applicant, Landstrom Group Ltd to undertake an extended Phase 1 habitat survey at a site off Turners Green Road, Wadhurst, East Sussex at grid reference TQ 636 330 to help inform the proposed development of the site.
- This report details the results of the survey, which was carried out on the 20th June 2019 by Nicky Williamson qualified ecologist, to record and map the phase 1 habitats present, assess the site for the potential presence of any protected species or species of conservation concern and identify habitats of conservation importance.
- Additional information regarding the present and historical ecological interest of the site and within a 2km radius was provided by the Sussex Biological Records Centre. This helps to inform the likelihood of protected species occurring within the site boundary.
- The site is approximately 0.9ha and largely comprises of an approximately triangular shaped field with hedgerow boundaries on two sides and a post and rail fence on the remaining side. The proposed development plan involves construction of five residential dwellings with associated parking and access.
- Some of the mature trees on / adjacent to the site were found to have low potential for bats, therefore further survey for bats will be required if any of these trees (target notes 1, 2, 3 and 6) are to be removed or tree works are planned.
- Lighting around the hedgerow boundaries should be avoided or kept to the minimum necessary, and preferably on a motion sensor to reduce lighting time.
- Vegetation or tree removal should be undertaken outside the breeding bird period from March to August. No vegetation can be cleared whilst a nest is occupied, of any bird species.
- It is recommended that a precautionary approach to site clearance be adopted for GCN and reptiles. Should any GCN be found at any time, all works must stop, and a suitably qualified ecologist be contacted immediately.
- The short sward over the majority of the site should be maintained e.g. by grazing or cutting. Any areas of long grass should be gradually cut down and maintained as a short sward to discourage movement of amphibians and reptiles into the site.
- The hedgerow is considered to have potential to support hazel dormouse. It is recommended that a method statement be produced for the works in relation to hazel dormouse; this should include timings of works, ecological supervision and planting on site to retain connectivity post works.
- Site clearance work should be undertaken carefully (by hand if necessary) to avoid crushing moles within their burrows.
- Care should be taken to prevent the further spread of variegated yellow archangel, ideally this should be removed from the site.

- To ensure continued habitat for SPI species it is recommended that hedgerows and mature trees be retained, and some associated areas of longer grass are retained or built into the landscaping plan wherever possible. If close board fencing is used, this should be fitted in such a way as to allow hedgehogs to pass underneath.
- The hedgerow habitat within the survey area is an HPI and therefore should be retained; it may be possible to compensate for the loss of the section required for site access by planting a new hedgerow of mixed native species along the footpath.
- The hedgerow may also be an important hedgerow under the 1997 regulations and, therefore, the local authority's permission may be required for any removal.
- The mature trees and hedgerow should be retained intact wherever possible and protected in line with British Standard BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.
- The client has confirmed through correspondence with Wealden District Council that there are no TPOs within the site.

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The information and data which has been prepared and provided is true and has been prepared and provided in accordance with the 'Guidelines for Preliminary Ecological Appraisal' and 'Code of Professional Conduct' issued by the Chartered Institute of Ecology and Environmental Management (CIEEM). We confirm that the opinions expressed are our true and professional bona fide opinions.

1 Introduction

- 1.1 AEWCLtd were commissioned by Oast House Ventures on behalf of the applicant, Landstrom Group Ltd, to undertake an extended Phase 1 habitat survey at a site off Turners Green Road, Wadhurst, East Sussex to help inform the proposed development of the site.
- 1.2 This survey comprised a desktop study of biological records within the vicinity of the site, an ecological walkover survey to record and map the habitats present and an assessment for protected wildlife and species of conservation importance, including habitats, and was carried out by a qualified ecologist Nicky Williamson on the 20th June 2019.
- 1.3 This report presents the results of the following:
 - Desktop Biodiversity Report
 - Phase 1 Habitat Survey
 - Protected Species Walkover Survey
- 1.4 In addition, the report outlines any recommendations/further surveys that may be necessary. This will ensure that any protected species are not detrimentally impacted by the proposed development works on site, that there is no loss of ecological viability and that the favourable conservation status of the species in the local area are not affected.

2 Background

- 2.1 The proposed development site is located off Turners Green Road, Wadhurst East Sussex, TN5 6TU at central grid reference TQ 636 330. See Figure 1.
- 2.2 The site is located to the west of Turners Green Road in Turner's Green which is approximately 1.25km north of the village of Wadhurst and 8km south east of Tunbridge Wells. The surrounding landscape comprises of a rural area with low density housing, the site is boarded by Turners Green Road and open fields and a playing field to the south. See Figure 2.
- 2.3 The site is approximately 0.9ha and largely comprises of an approximately triangular shaped field with hedgerow boundaries on two sides and a post and rail fence on the remaining side.
- 2.4 The proposed development plan involves construction of five residential dwellings with associated parking and access. This will involve the removal of a 10m section of hedge alongside Turner's Green Road, additionally a further approximately 15m to the north and 10m to the south will need to be trimmed back to provide the visibility splays, and the loss of the majority of the grassland on the site. The development will include the retention of the mature trees and the hedgerow along the southern boundary, additional tree planting is proposed alongside the new access road.



FIGURE 1: SHOWING THE SITE LOCATION



FIGURE 2 : AERIAL VIEW OF THE SITE SHOWING THE SITE BOUNDARY

3 Methods

Desk Study

- 3.1 Information about any international or European level designated nature conservation sites within 2km of the site boundary, afforded protection either directly by the Conservation of Habitat and Species Regulations 2010 (as amended) or to the same level of protection through planning policy (the National Planning Policy Framework and Local Development Framework) was requested from the local biological records centre, Sussex Biodiversity Record Centre (SxBRC). Information regarding statutory designated sites, such as Sites of Special Scientific Interest (SSSI) within a 2km radius of the site, were also obtained from SxBRC.
- 3.2 Aerial photos of the site (Google Earth) were examined to determine habitats surrounding the site and hence species likely to be present in order to make appropriate recommendations in the wider landscape context.
- 3.3 Records of protected and notable species and non-statutory designated sites within 2km of the site were also requested from SxBRC. Information on the presence of non-statutory designated sites within 2km of the site, were also obtained.
- 3.4 Records were screened for relevance and age with only those from the last 10 years and of species that could occur on site considered further.
- 3.5 A search for waterbodies within 500m of the site boundary was undertaken using MAGIC mapping in order to assess their connectivity to the site.

Phase 1 Habitat Survey

- 3.6 A daytime ecological walkover assessment was carried out on the 20th June 2019 to record and map the habitats present, evaluate the site for its potential to support protected species in addition to other species of conservation importance that could be relevant in respect of planning policies.
- 3.7 The survey involved an Extended Phase 1 Habitat Survey which was carried out based on the standard methodology produced by JNCC (2010) and included searches for signs of protected species, as described in the Guidelines for Preliminary Ecological Assessment (CIEEM, 2012). This involves the following elements:
 - Habitat mapping using a set of standard colour codes to indicate habitat types on a Phase 1 Habitat Map.
 - Description of features of ecological or nature conservation interest in notes relating to numbered locations on the Phase 1 Habitat Map, called Target Notes (for habitat and features of possible interest).
 - A plant species list with subjective estimates of the relative abundance of species in selected habitat parcels using a modified DAFOR scale. The DAFOR scale ranks species according to their relative abundance in a given parcel of land as follows: d – dominant, a – abundant, f – frequent, o – occasional, r – rare. In addition, the following prefixes are used: l – locally, v – very.

- 3.8 Plant nomenclature in this report follows Stace (2010) for native and naturalised species of vascular plant. Plant names in the text are given with the English name first, followed by the Latin name. Latin names for all species are given just once and not repeated.

Protected Species walkover

- 3.9 An assessment was made of habitat suitability in and around the site for those protected species that occur in the region. Obvious signs and incidental sightings of protected species are noted when encountered, but walkover surveys do not usually confirm species presence or absence.
- 3.10 Taking into consideration the geographical region and habitat type, species that could be encountered are:
- badger;
 - bats;
 - breeding birds;
 - great crested newt;
 - hazel dormice;
 - otter;
 - reptiles;
 - water vole;
 - other mammals; and
 - other Species of Principal Importance (SPI) (e.g. hedgehog, stag beetle etc);
- 3.11 In addition, observations of any invasive species, important plant communities, plant species of note, Habitats of Principal Importance (HPI) or other valuable ecological features will be recorded and detailed.
- 3.12 Details of the initial survey method for each species are given below.
- 3.13 **Badger** – an initial assessment was carried out to identify areas that might be used by badgers (*Meles meles*). Signs of badgers including setts, incidental foraging signs, runs, hairs and latrines are recorded if encountered during the survey. Where possible the area within 30m of the site is also searched for badger setts.
- 3.14 **Bats** – The site was assessed for bat roosting potential and the surrounding area was assessed for the suitability of the habitat to support bats. Any buildings were examined and assessed for evidence of bats, such as rub marks, staining or droppings or for features that have good potential to be used by bats, such as loft voids, raised tiles, hanging tiles, gaps in soffits and lead flashing cracks, crevices and mortise joints.
- Trees were assessed for their potential to be used by bats such as woodpecker holes, splits, cracks and crevices or loose bark plates which can be used as roost features by bats. Such features are noted and examined by using equipment such as a high-powered torch and binoculars, in order to determine their suitability for bats.

- 3.15 **Breeding Birds** - habitats were assessed for their suitability for nesting birds. This would centre on birds that favour hedgerows, areas of longer grassland, scrub, trees as well as buildings.
- 3.16 **Great Crested Newt** - initial surveys centre on identifying suitable habitat within the site. If breeding ponds are present within the locality then great crested newt (*Triturus cristatus*) could potentially be using the terrestrial habitat on the site. Maps are used to identify any ponds (that are not isolated by unsuitable habitat or physical barriers) within 500 metres of the site. A Habitat Suitability Index (HSI) is used to quantifiably assess whether a pond is suitable, this is undertaken for any onsite ponds during the walkover survey.
- 3.17 **Hazel Dormice** – scrub and areas of dense vegetation are assessed for their suitability for foraging and nesting hazel dormice (*Muscardinus avellanarius*). Favoured berry and nut bearing species such as hawthorn, hazel and bramble were looked for in particular. Additionally, the connectivity of this habitat and to suitable habitat beyond the site is also assessed. If hazel nuts are present a brief search for nuts that have been chewed by hazel dormouse (i.e. displaying the characteristic smooth round hole) was conducted.
- 3.18 **Otter** - initial surveys aim to assess the site for watercourses suitable for otters (*Lutra lutra*). If suitable watercourses are present on site, evidence of otter is searched for. Signs of otter includes spraints, feeding remains and sightings are recorded if encountered during the survey.
- 3.19 **Reptiles** - the site was assessed for habitat suitable for reptiles, such as long grassland and areas of scrub, with particular attention paid to those features that provide suitable basking areas (e.g. south-facing slopes and walls), hibernation sites (e.g. banks, log piles and piles of rotting vegetation) and opportunities for foraging (e.g. rough grassland and scrub).
- 3.20 **Water vole** - initial survey aims to assess the site for watercourses that may be suitable for water voles (*Arvicola amphibious*). If suitable watercourses are present on site, evidence of water voles is searched for. Signs of water voles includes faeces, latrines, feeding stations, burrows, footprints, runs or pathways and sightings which are recorded if encountered during the survey.
- 3.21 **Other mammals** – any signs of occupancy by other mammals (e.g. Rabbit warrens) are recorded.
- 3.22 **Other Species of Principal Importance (SPI)** – the habitats present on site were assessed for the likelihood of presence for species of regional and national importance.
- 3.23 **Invasive species** - Any invasive plant or animal species identified during the site walkover are recorded.
- 3.24 **Plant species of note** – Any plant species of conservation concern found on the site are recorded.

3.25 Habitats of Principal Importance - Habitats of Principal Importance within or adjacent to the site (such as arable field margins, traditional orchards, ponds, rivers, wet woodlands) are recorded.

3.26 Other valuable ecological features - Other ecological features e.g. ancient woodland, veteran trees, bird feeding stations etc, habitat enhancements etc. within or adjacent to the site are recorded.

4 Constraints/Limitations

4.1 An initial site assessment such as this is only able to act as a snapshot to record any flora or fauna that is present at the time of the survey. It is therefore possible that some species may not have been present during the survey but may be evident at other times of the year. For this reason, habitats are assessed for their potential to support some species, even where no direct evidence (such as droppings) has been found.

4.2 The vegetation surrounding the dry pond was dense and so this area was inaccessible in places.

5 Results

Desk Study

Sites

Statutory Designated Sites

5.1 Sites of Special Scientific Interest (SSSI's) are areas notified under the Wildlife and Countryside Act 1981, as amended, as being of special interest for nature conservation. They are the finest sites for wildlife and natural features supporting many characteristic, rare and endangered species, habitats and natural features. LPAs have a duty to consult Natural England before granting planning permission on any development that is in or likely to affect a SSSI.

5.2 Internationally designated sites: Special Protection Areas (SPA), Special Areas of Conservation (SAC) & RAMSAR sites. Development proposals which will adversely affect these sites are not permitted (except where there are no alternative solutions and the proposal is necessary for imperative reasons of overriding public interest). If a development could possibly impact on a SPA or SAC, the applicant will need to submit an assessment of potential impacts and their significance with their planning application for the local authority to make an 'Appropriate Assessment'.

5.3 Local Nature Reserves are a statutory designation made by local authorities.

- 5.4 There is one statutory designated site located within 2km of the proposed site; this is the High Weald, an Area of Outstanding Natural Beauty (AONB).

Non-statutory Designated Sites

- 5.5 Local Wildlife Sites (LWS) are non-statutory designations, which are identified at a county level. They typically form a network of sites that are recognised of being of conservation importance locally and are often included in Local Authority development plans.
- 5.6 There is one non-statutory site located within 2km of the proposed site; this is Bewl Water Reservoir.

Waterbodies within 500m of the site boundary

- 5.7 There are eight waterbodies that occur within 500m of the site boundary that are unobstructed by main roads (see Figure 3): These are listed below:

Pond1: This is immediately adjacent to the site's south-western corner

Pond 2: Within woodland approximately 265m to the north

Ponds 3 & 4: Approximately 270m to the east

Pond 5: Appears to be a manmade pond (from the shape) around 445m to the east

Pond 6: In woods approximately 400m to the south-west

Pond 7: Approximately 200m to the north east

Pond 8: Around 195m to the north east within a garden

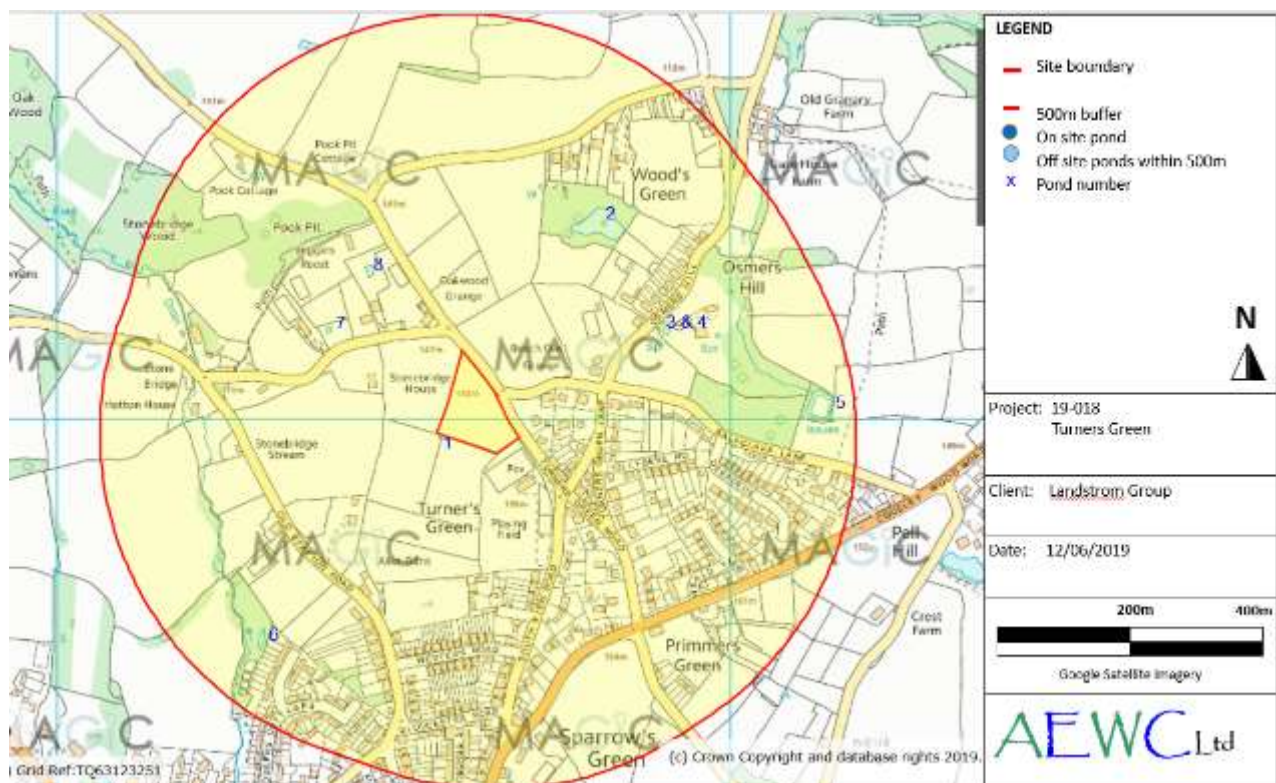


FIGURE 3: WATERBODIES WITHIN 500M

Protected Species

Badger

- 5.8 Records of badger are confidential so are not provided within the data search.

Bats

- 5.9 Records of serotine, noctule, common pipistrelle and brown long-eared bat were identified in the data search within 2km of the site.

Birds

- 5.10 Records of notable birds were identified within the 2km search area. A number of these relate to nearby woodland sites, but some such as Red Kite, Kestrel and Barn Owl are of site relevance as suitable habitat occurs around site.

Great crested newt

- 5.11 A record of great crested newts was recorded in 2013 by Wadhurst approximately 940m south of the site.

Hazel dormice

- 5.12 Records of hazel dormouse were recorded in 2011 within the parish of Wadhurst 1.4km to the north east of the site.

Otter

- 5.13 No records of otter were found within 2km on the site.

Reptiles

- 5.14 Records of slow-worm and grass snake were identified in 2009 from Sparrows Green Recreation Ground approximately 200m to the south of the site.

Water vole

- 5.15 No records of water vole were found within 2km on the site.

Other Mammals

- 5.16 Records of west European hedgehog were also identified within the 2km search area, all by Wadhurst; in 2018 approximately 1.4km south of the site, in 2016 650m south of the site and in 2013 1.5km east of the site.

Other Species of Principal Importance (SPI)

- 5.17 Records of the following SPI of relevance due to suitable habitat on site include: tawny owl, common toad, hedgehog

Field Survey

Habitats and Plants

- 5.18 A Phase 1 Habitat map and list of target notes are included in Figure 4 and Table 1 respectively and a species list is given in Appendix 3. The habitats present on the site are described below.

Scattered Broad-leaved Trees

- 5.19 Scattered broadleaved trees are present along the eastern and southern boundaries associated with the hedgerows. These are described within the hedgerow section and are target noted where appropriate.

Semi-improved grassland

- 5.20 The majority of the site comprises of semi-improved grassland. The sward is fairly short, and the presence of horse dung suggests this is (or has been) grazed (see photo 1). It has a gentle slope down to the north. Grasses include abundant perennial rye-grass (*Lolium perenne*) and crested dog's-tail (*Cynosurus cristatus*) with frequent creeping bent (*Agrostis stolonifera*), Yorkshire fog (*Holcus lanatus*) and sweet vernal-grass (*Anthoxanthum odoratum*) with occasional rough meadow-grass (*Poa trivialis*) and rare cock's-foot (*Dactylis glomerata*). Herbs are frequent in the sward and include abundant common knapweed (*Centaurea nigra*), frequent common cat's-ear (*Hypochaeris radicata*), white clover, creeping buttercup and black medic, occasional red clover (*Trifolium repens*), greater plantain (*Plantago major*), common sorrel (*Rumex acetosa*) with rare creeping thistle (*Cirsium arvense*) and daisy (*Bellis perennis*). Locally frequent are broad-leaved dock (*Rumex obtusifolius*), common bird's-foot trefoil (*Lotus corniculatus*) and lesser stitchwort (*Stellaria graminea*).



Photo 1: Semi-improved grassland



Photo 2: Trampled footpath across the site.

- 5.21 The herbs are attracting a variety of invertebrates and meadow brown (*Maniola jurtina* butterfly) were frequently recorded. A footpath crosses the grassland area, here the sward has been trampled (see photo 2) and is shorter with daisy (*Bellis perennis*) locally frequent.

Hedgerow

- 5.22 The hedgerow alongside Turner's Green road is a mixed species hedge containing several mature and semi-mature trees (see photo 3). The hedge is wide (approximately 1.5m on average) and high (up to 5m in places) and scrubby with trees

that increase the height in places. There is a gap of around 2m to accommodate a stile for the footpath that crosses the site (see photo 4). Hawthorn (*Crataegus monogyna*) is dominant with frequent hazel (*Corylus avellane*) (although on the roadside hazel is locally dominant), beech (*Fagus sylvatica*) and sycamore (*Acer pseudoplatanus*), holly (*Ilex aquifolium*) and honeysuckle (*Lonicera periclymenum*) are occasional and broom (*Cytisus scoparius*) rare. The trees include a mature and two semi-mature pedunculate oaks (*Quercus robur*), sycamore (*Acer pseudoplatanus*), beech (*Fagus sylvatica*), silver birch (*Betula pendula*) and downy birch (*Betula pubescens*).

5.23 There is a decent scrubby edge to the hedge which inside the site includes abundant bramble (*Rubus fruticosus* agg.) with frequent common nettle (*Urtica dioica*) and herb-Robert (*Geranium robertianum*) with occasional smooth tare (*Vicia tetrasperma*) and yarrow (*Achillea millefolium*); south of the footpath entrance sycamore is locally dominant and bracken (*Pteridium aquilinum*) and elder (*Sambucus nigra*) are both frequent. On the roadside of the hedge there is creeping soft grass (*Holcus mollis*) with tall common nettle with frequent cow parsley (*Anthriscus Sylvestris*), hogweed (*Heracleum sphondylium*), silver weed (*Potentilla anserine*) and germander speedwell (*Veronica chamaedrys*) with occasional yellow archangel (*Lamium galeobdolon*) (see photo 5).



Photo 3: Hedge alongside Turner's Green Road.



Photo 5: Roadside of hedge.



Photo 4: Gap to accommodate stile.



Photo 6: Hedge along southern boundary of the site.

- 5.24 Along the southern boundary of the site the hedgerow has a higher proportion of trees, therefore it is much taller than the roadside hedge but still has some structure and is continuous (see photo 6). Trees include birch and hazel with abundant holly (*Ilex aquifolium*) and bramble, frequent hawthorn and rare yew (*Taxus baccata*). Elder, hazel and a rose (*Rosa sp.*) are occasional although these increase in frequency towards the road end of the hedge.

Bare ground

- 5.25 There is an area of bare ground associated with the gate in the north west of the field. This is presumably due to trampling and heavy use of the area by livestock (see photo 7).



Photo 7: Bare ground in north west of site.

Dry pond

- 5.26 Immediately adjacent to the south west corner of the site is a dry pond which is overgrown with scrub.

Fence

- 5.27 A wooden post and rail fence is present along the western boundary separating the site from the adjacent field (see photo 8).



Photo 8: Fence along western boundary.

Table 1 - Target Notes from Figure 4 - Phase 1 Habitat Plan

Target Note	Description
1	Semi-mature beech tree. Ivy (dead) matting around trunk and lower limbs, may have some bat potential (see photo 9).
2	Mature pedunculate oak, just beyond boundary, with a DBH of approximately 0.6m (see photo 10). However, limbs overhang the site (although these are generally quite small and spindly), there is a knot hole (just above the fence, see photo 11) and some features beyond the fence line (such as sparse ivy on the trunk and lower limbs) that may provide bat roosting features.
3	Mole hills (see photo 12).
4	Mature pedunculate oak with a large split in trunk resulting in upright frayed dead wood and splits with bat roosting potential (see photo 14).
5	Mammal run along field edge (see photo 13).
6	Two mature pedunculate oaks (beyond the site boundary) one with good features for bat roosting.
7	Large stool of hazel coppice (may be just beyond site boundary, see photo 15).

DBH = Diameter at breast height



Photo 9: Ivy matting on semi-mature beech (target note 1).



Photo 11: Knot hole in oak.



Photo 12: Mole hills (target note 3)



Photo 10: Pedunculate oak (target note 2).



Photo 13: Mammal run along southern edge of field.



Photo 14: Split in oak tree.



Photo 15: Hazel coppice (target note 7).



FIGURE 4: PHASE 1 HABITAT MAP.

Habitat evaluation

Plant species of note

5.36 No plant species of note were identified.

Habitats of Principal Importance HPI

5.37 The hedgerows along the site boundaries are HPI as they meet the criteria of 'consisting predominantly (i.e. 80% or more cover) of at least one woody UK native species'.

5.38 Whilst the grassland has a reasonable proportion of herb coverage, it is not likely to meet any criteria for HPI grassland.

Protected species and species of conservation concern

Badger

5.39 No badger setts were identified present on site. A mammal track was recorded along the southern boundary of the site, but no evidence of badger activity such as latrines, guard hairs or snuffle holes were observed on or directly adjacent to the site, which would suggest that the site is otherwise used for foraging.

Bats

5.40 Some of the mature trees on site, or immediately adjacent to the site (notably target notes 1, 2, 3 and 6) have some features that are potentially suitable for roosting bats.

5.41 The hedgerows with trees along the site boundary provide good commuting habitat for bats because of their connectivity to features in the wider rural landscape.

Breeding birds

5.42 The hedgerows and trees within the site provide suitable habitat for breeding birds.

Great Crested Newt (GCN)

5.43 The site is considered to have some potential to support terrestrial GCN, this is mainly confined to the hedgerows and associated longer grassland at the site boundary.

5.44 No ponds were recorded within the site boundary. GCN have been recorded in the wider area.

5.45 The Ordnance Survey map available via MAGIC was reviewed for ponds within the accepted dispersal distance of 500m that are not separated from the site by significant barriers to dispersal such as main roads; eight ponds were found occurring in all directions (see Figure 3). The closest is pond 1 which is immediately adjacent to the south western corner of the site; this was visited during the site survey when it was found to be dry and overgrown with dense scrub vegetation. The next nearest ponds are ponds 7 and 8 at approximately 200m and 195m away respectively, the remaining ponds are over 250m away from the site.

5.46 The size of the site (0.9ha) and distance from the ponds that could support GCN suggests that an offense in terms of terrestrial habitat loss is unlikely (see Table 2)., therefore this is not considered usable for GCN.

Table 2 – GCN Rapid Risk Assessment – From Natural England's GCN Method Statement

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	0.1 - 0.5 ha lost or damaged	0.1
Land >250m from any breeding pond(s)	0.5 - 1 ha lost or damaged	0.03
Individual great crested newts	No effect	0
	Maximum:	0.1
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

Hazel dormice

5.47 The hedgerow on the site boundaries are considered to have suitability to support hazel dormouse as it offers foraging opportunities (hazel and a number of fruiting species such as hawthorn and bramble) and is well connected to adjacent suitable hedgerow habitat. Additionally, hazel dormouse has been recently recorded within the locality.

5.48 No hazel nuts were available to check for those that may have been chewed by hazel dormouse.

Otter

5.49 No evidence of Otters (sprait, footprints or feeding signs) were noted during the walkover survey. There was little in the way of scrub habitat, fish or suitable habitat providing suitable habitat for otters.

Reptiles

5.50 The majority of the grassland on the site has very limited potential to support reptiles as the sward is generally quite short with little structure (such as tussocks). However, the longer grassland alongside the hedgerow provides suitable foraging habitat for common reptiles such as slow-worms and grass snake both of which have been recorded locally.

Water vole

5.51 Negligible potential habitat for water voles was present on the site and, as such, no evidence was recorded.

Other Mammals

5.52 Mole hills were noted within the site.

Other Species of Principal Importance

5.28 There is potential for the site to support SPI such as tawny owl, common toad and hedgehog.

Invasive species

5.53 Varigated yellow archangel (a species listed on schedule 9 on the wildlife and countryside act) was recorded in the hedgerow alongside Turner's Green Road (see photo 16).



Photo 16: Variegated yellow archangel

Other valuable ecological features

Important hedgerows

5.54 Hedgerows are protected if they meet the defined criteria for:

1. length
2. location
3. 'importance'

5.55 On this site the hedge may meet the defined criteria as follows:

1. length: The hedge is more than 20m long with gaps of 20m or less in its length and meets another hedge at each end.
2. location: The hedge is on or next to land used for breeding or keeping horses, ponies or donkeys
3. importance: The hedge may be important (and is protected) if it's at least 30 years old and because it may support hazel dormouse (which is a protected species listed in the Wildlife and Countryside Act 1981), additionally, at least seven woody species (broom, elder, hawthorn, hazel, holly, pedunculate oak and yew). Therefore, further assessment may be necessary. For example the number of woody species were not recorded separately for each section; for hedge is approximately 150m on the longer (eastern) section and therefore the number of woody species present in the central stretch of 30 metres within each half of the hedgerow should be counted and the aggregate should be divided two to give the number of woody species.

6 Conclusions & Recommendations

- 6.1 In line with Natural England's Standing Advice, where further survey for protected species is recommended these should be conducted prior to submitting a planning application and appropriate mitigation measures be incorporated into the development design.

Badger

- 6.2 The survey did not identify any evidence of badgers on the site and it is considered unlikely that there is a sett present within 30m. No further surveys for badgers are considered necessary.

Bats

- 6.3 Some of the mature trees on / adjacent to the site were found to have low potential for bats, therefore further survey for bats will be required if any of these trees (target notes 1, 2, 3 and 6) are to be removed or tree works are planned.
- 6.4 Lighting can have notable negative impacts on commuting bats, that are known to be present locally. There is potential for lighting during and post-development to cause indirect disturbance in these areas. Lighting around the hedgerow boundaries should be avoided or kept to the minimum necessary, and preferably on a motion sensor to reduce lighting time.

Breeding birds

- 6.5 Vegetation or tree removal should be undertaken outside the breeding bird period from March to August. Should any vegetation clearance be scheduled to take place between the beginning of March and the end of August, this must be immediately preceded by a survey to check for nesting birds. No vegetation can be cleared whilst a nest is occupied, regardless of species.

Great Crested Newt (GCN)

- 6.6 It is recommended that a precautionary approach to site clearance be adopted (as for reptiles, see below). Grassland removal must be done sensitively and checked for GCN immediately beforehand by an ecologist. Should any GCN be found at any time, all works must stop, and a suitably qualified ecologist be contacted immediately.

Hazel dormice

- 6.7 The hedgerow is considered to have potential to support hazel dormouse. The majority of the hedge is being retained; although a gap will be created to provide access for the proposed dwellings.
- 6.8 It is recommended that a method statement be produced for the works in relation to hazel dormouse; this should include timings of works, ecological supervision and planting on site to retain connectivity post works.

Otter

- 6.9 The site is considered unlikely to be used by Otter and therefore no further surveys for this species are required.

Reptiles

- 6.10 The site provides a small amount of habitat for reptiles namely the small areas of longer grassland and scrub associated with the hedgerow boundaries.
- 6.11 The short sward over the majority of the site should be maintained e.g. by grazing or cutting. Any areas of long grass should be gradually cut down and maintained as a short sward to discourage movement of reptiles into the site.
- 6.12 A precautionary approach to site clearance should be adopted, vegetation should be cut down prior to site clearance. During the active season (March to September) the site can then be cleared; the top 10cms or so of topsoil should be removed by a toothed excavator under the supervision of an ecologist. Log piles and compost heaps should be dismantled carefully (by hand if possible). Any animals caught should be relocated to a safe area of suitable habitat beyond the development boundary.

Water vole

- 6.13 The site is considered unlikely to be used by water vole and therefore no further surveys for this species are required.

Other Mammals

- 6.14 Site clearance work should be undertaken carefully (by hand if necessary) to avoid crushing moles within their burrows.

Other Species of Principal Importance

- 6.15 To ensure continued habitat for SPI species it is recommended that hedgerows and mature trees be retained, and some associated areas of longer grass are retained or built into the landscaping plan where possible. If close board fencing is used, this should be fitted in such a way as to allow hedgehogs to pass underneath.

Invasive species

- 6.16 Care should be taken to prevent the further spread of variegated yellow archangel, ideally this should be removed from the site.

Plant species of note

- 6.17 No plant species of note were recorded and therefore no further action is required.

Habitats of Principal Importance

- 6.18 The hedgerow habitat within the survey area is an HPI and therefore should be retained, any loss should be compensated. See also *Important hedgerows* below.

Important hedgerows

- 6.19 The hedgerow may be an important hedgerow under the 1997 regulations and therefore, the local authority's permission may be required for removal.
- 6.20 In this instance the majority of the hedgerow will be retained, although a small section will be lost as this is required to accommodate the access to the proposed dwellings.
- 6.21 The plans show that a section of the hedge alongside Turner's Green will be lost to provide access to the site. There is a gap in this hedge already due to the presence of a footpath and stile, it is also proposed to 'enhance' the current footpath across the

site. Therefore, it may be possible to compensate for the loss of this section of hedgerow and both retain and enhance habitat connectivity across the site by planting a new hedgerow of mixed native species along this footpath. This should be discussed with the local authority.

Other valuable ecological features

- 6.22 The mature trees and hedgerow should be retained intact wherever possible and protected in line with British Standard BS5837:2012 Trees in relation to design, demolition and construction – Recommendations.
- 6.23 The client has confirmed through correspondence with Wealden District Council that there are no Tree Preservation Orders (TPOs) within the site.

Appendix 1 – Survey timetable

Species	Survey	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Bats	Roost assessments												
	Ground level tree assess												
	Emergence and activity												
	Hibernation												
	T rapping												
	Optimal												
	Sub-optimal												
	Outside survey season												

Appendix 2 – legal protection

General

This section briefly describes the legal protection afforded to protected species. It is for information only and is not intended to be comprehensive or to replace specialised legal advice. It is not intended to replace the text of the legislation but summarises the salient points.

Badger

Badgers are protected under the *Protection of Badgers Act 1992*. Under this legislation it is an offence to kill or injure a badger, to damage, destroy or block access to a badger sett, or to disturb a badger in its sett. The Act also states the conditions for the protection of badger's licence requirements.

Bats

All species of bats are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)* which affords them protection under *Section 9*, as amended. They are also protected under the *Conservation of Habitats and Species Regulations 2017*. In combination, this makes it an offence to:

- intentionally kill, injure or take (capture etc.);
- possess;
- intentionally or recklessly damage, destroy, obstruct access to any structure or place used by a scheduled animal for shelter or protection, or disturb any animal occupying such a structure or place; and
- sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

A roost is defined as 'any structure or place which a bat uses for shelter or protection'. As bats tend to reuse the same roosts, legal opinion is that a roost is protected whether or not bats are present.

Furthermore, seven bat species (barbastelle, bechstein's, noctule, soprano pipistrelle, brown long-eared, lesser horseshoe and greater horseshoe) are also Species of Principal Importance in England under *Section 41* of the *Natural Environment and Rural Communities Act 2006*.

Breeding Birds

All species of wild bird are protected under *Section 1* of the *Wildlife and Countryside Act 1981 (as amended)*. Protection was extended by the *Countryside and Rights of Way (CROW) Act 2000*. Under the above legislation, it is an offence to intentionally:

- kill, injure or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use or being built; or
- take or destroy an egg of any wild bird.

Certain species are listed on *Schedule 1* of the *Wildlife and Countryside Act 1981 (as amended)* and receive protection under *Sections 1(4)* and *1(5)*. There are special penalties where the offences listed above are committed for any *Schedule 1* species and it is also an offence to intentionally or recklessly:

- disturb any such bird when it is building its nest or while it is in or near a nest containing dependant young; or

- disturb the dependant young of any such bird.

Amphibians

Natterjack toad, northern pool frog and great crested newt are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)* which affords them protection under *Section 9*, as amended. They are also protected under the *Conservation of Habitats and Species Regulations 2017*. In combination, this makes it an offence to:

- intentionally kill, injure or take (capture etc.);
- possess;
- intentionally or recklessly damage, destroy, obstruct access to any structure or place used by a scheduled animal for shelter or protection, or disturb any animal occupying such a structure or place; and
- sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

Palmate newts and smooth newts are also afforded protection against sale only under *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)*.

Natterjack toad, common toad, great crested newt and northern pool frog are also Species of Principal Importance in England under *Section 41* of the *Natural Environment and Rural Communities Act 2006*.

Hazel dormouse

Hazel dormouse is listed on *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)* which affords them protection under *Section 9*, as amended. They are also protected under the *Conservation of Habitats and Species Regulations 2017*. In combination, this makes it an offence to:

- intentionally kill, injure or take (capture etc.);
- possess;
- intentionally or recklessly damage, destroy, obstruct access to any structure or place used by a scheduled animal for shelter or protection, or disturb any animal occupying such a structure or place; and
- sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

Hazel dormouse is also a Species of Principal Importance in England under *Section 41* of the *Natural Environment and Rural Communities Act 2006*.

Otter

Otter is listed on *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)*, which affords them protection under *Section 9*, as amended. They are also protected under the *Conservation of Habitats and Species Regulations 2017*. In combination, this makes it an offence to:

- intentionally kill, injure or take (capture etc.);
- possess;
- intentionally or recklessly damage, destroy, obstruct access to any structure or place used by a scheduled animal for shelter or protection, or disturb any animal occupying such a structure or place; and
- sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

Otter is also a Species of Principal Importance in England under *Section 41* of the *Natural Environment and Rural Communities Act 2006*.

Reptiles

Common lizard (*Lacerta vivipara*), grass snake (*Natrix natrix*), slow-worm (*Anguis fragilis*), and adder (*Vipera berus*) are listed under *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)*, in respect of *Section 9(5)* and part of *Section 9(1)*. This protection was extended by the *Countryside and Rights of Way (CROW) Act 2000*. Under the legislation, it is an offence to:

- intentionally or deliberately kill or injure any individual of these species; or
- sell or attempt to sell any part of these species either alive or dead.

Smooth snake (*Coronella austriaca*) and sand lizard (*Lacerta agilis*) are listed on *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)*, which affords them protection under *Section 9*, as amended. They are also protected under the *Conservation of Habitats and Species Regulations 2017*. In combination, this makes it an offence to:

- intentionally kill, injure or take (capture etc.);
- possess;
- intentionally or recklessly damage, destroy, obstruct access to any structure or place used by a scheduled animal for shelter or protection, or disturb any animal occupying such a structure or place; and
- sell, offer for sale, possess or transport for the purpose of sale (live or dead animal, part or derivative) or advertise for buying or selling such things.

All UK reptile species are Species of Principal Importance in England under *Section 41* of the *Natural Environment and Rural Communities Act 2006*.

Water vole

Water vole (*Arvicola amphibious*) is listed on *Schedule 5* of the *Wildlife and Countryside Act 1981 (as amended)*, which affords them protection under *Section 9*, as amended. This makes it an offence to:

- capture, kill or injure;
- damage, destroy or block access to a place of shelter;
- disturb whilst in a place of shelter or possessing, and
- sell any part of a water vole, dead or alive.

Other Mammals

All mammals receive some protection under the *Wild Mammals (Protection) Act 1996*, which makes it an offence to crush or asphyxiate an animal (e.g. within its burrow).

Species and Habitats of Principal Importance

Section 41 of the *Natural Environment and Rural Communities (NERC) (2006)* requires the Secretary of State to publish a list of habitats and species which are of principal importance for the conservation of biodiversity in England. The S41 list has 56 Habitats of Principal Importance and 943 species of principal importance listed and has been drawn up in consultation with Natural England.

The S41 list is used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under *Section 40* of the *Natural Environment and Rural Communities Act 2006*, to have regard to the conservation of biodiversity in England, when carrying out their normal functions.

Invasive species

It is an offence to plant, or otherwise cause to grow in the wild non-native plant species listed under *Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)*, for which *Section 14* of the Act applies. These include, but are not limited to:

- Himalayan balsam
- Cotoneaster sp.
- Japanese knotweed
- Giant hogweed.

Ancient woodland

The *National Planning Policy Framework (2012)* states that '*Planning permission should be refused for development resulting in the loss or deterioration of irreplaceable habitats, including ancient woodland and the loss of aged or veteran trees found outside ancient woodland, unless the need for, and benefits of, the development in that location clearly outweigh the loss*'. In addition, Natural England's standing advice for ancient woodland states that *an appropriate buffer zone of semi-natural habitat [be in place] between the development and the ancient woodland (depending on the scale and impact of development), a minimum buffer should be at least 15 metres to avoid root damage and at least 50m for pollution or trampling*".

Ancient woodlands, and ancient and veteran trees, may also be protected by Tree Preservation Orders.

Appendix 3 – Species list

Common Name	Scientific name	DAFOR
Beech	<i>Fagus sylvatica</i>	LF
Black Medick	<i>Medicago lupulina</i>	R
Bracken	<i>Pteridium aquilinum</i>	LA
Bramble	<i>Rubus fruticosus</i> agg.	LD
Broad-leaved Dock	<i>Rumex obtusifolius</i>	O
Broom	<i>Cytisus scoparius</i>	LF
Cat's-ear	<i>Hypochaeris radicata</i>	F
Cleavers	<i>Galium aparine</i>	F
Cock's-foot	<i>Dactylis glomerata</i>	F
Common Bird's-foot-trefoil	<i>Lotus corniculatus</i>	F
Common Cat's-ear	<i>Hypochaeris radicata</i>	F
Common Knapweed	<i>Centaurea nigra</i>	A
Common Mouse-ear	<i>Cerastium fontanum</i>	F
Common Nettle	<i>Urtica dioica</i>	LF
Common Sorrel	<i>Rumex acetosa</i>	F
Cow Parsley	<i>Anthriscus sylvestris</i>	O
Creeping Bent	<i>Agrostis stolonifera</i>	F
Creeping Buttercup	<i>Ranunculus repens</i>	F
Creeping Soft-grass	<i>Holcus mollis</i>	R
Creeping Thistle	<i>Cirsium arvense</i>	O
Crested Dog's-tail	<i>Cynosurus cristatus</i>	O
Daisy	<i>Bellis perennis</i>	LF
Downy Birch	<i>Betula pubescens</i>	R
Elder	<i>Sambucus nigra</i>	O
Germander Speedwell	<i>Veronica chamaedrys</i>	O
Greater Plantain	<i>Plantago major</i>	O
Hawthorn	<i>Crataegus monogyna</i>	LA
Hazel	<i>Corylus avellana</i>	LA
Herb-Robert	<i>Geranium robertianum</i>	R
Hogweed	<i>Heracleum sphondylium</i>	R
Holly	<i>Ilex aquifolium</i>	O
Honeysuckle	<i>Lonicera periclymenum</i>	LF
Lesser Stitchwort	<i>Stellaria graminea</i>	LF
Meadow Buttercup	<i>Ranunculus acris</i>	R
Pedunculate Oak	<i>Quercus robur</i>	F
Perennial Rye-grass	<i>Lolium perenne</i>	F
Red Clover	<i>Trifolium pratense</i>	O
Rose	<i>Rosa</i> sp.	R
Rough Meadow-grass	<i>Poa trivialis</i>	F
Selfheal	<i>Prunella vulgaris</i>	F
Silver Birch	<i>Betula pendula</i>	R
Silverweed	<i>Potentilla anserina</i>	LF
Smooth Tare	<i>Vicia tetrasperma</i>	R
Sweet Vernal-grass	<i>Anthoxanthum odoratum</i>	O

Common Name	Scientific name	DAFOR
Sycamore	<i>Acer pseudoplatanus</i>	O
Variegated yellow archangel	<i>Lamium galeobdolon</i> <i>Subsp. argentatum</i>	LF
Wheat	<i>Triticum</i>	R
White Clover	<i>Trifolium repens</i>	O
Yorkshire fog	<i>Holcus lanatus</i>	F
Yarrow	<i>Achillea millefolium</i>	F
Yellow Archangel	<i>Lamium galeobdolon</i>	LF
Yew	<i>Taxus baccata</i>	LF
European Mole	<i>Talpa europaea</i>	Present
Meadow Brown	<i>Maniola jurtina</i>	Present

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