The Ecology Consultancy

The Grove, St Leonards / PEA and PRA / **Miller Bourne Architects**

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The Grove, St Leonards

East Sussex

Preliminary Ecological Appraisal and

Preliminary Roost Assessment

Report for Miller Bourne Architects

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Executive Summary

The Ecology Consultancy was commissioned by Miller Bourne Architects to undertake a Preliminary Ecological Appraisal (PEA) and Preliminary Roost Assessment (PRA) to assess the presence or likely absence of bats within buildings and trees at The Grove in St Leonards, East Sussex.

A building inspection and tree inspection were carried out on 27th November 2013 by an experienced bat ecologist. Four buildings and 13 trees were assessed for their potential to support roosting bats. A Phase 1 habitat survey was undertaken on 20th March 2014.

- The site was predominantly lowland mixed-deciduous woodland, improved and poor semi-improved grassland, woodland, and buildings and hard-standing. Additionally, small areas of hedgerow, scattered trees, dense and scattered scrub, and compost and wood piles were recorded.
- The site is not subject to any statutory or non-statutory nature conservation designations. The nearest statutory site is Church and Robsack Wood Local Nature Reserve (LNR), 165m to the north. The nearest non-statutory site is Wishing Tree Site of Nature Conservation Importance (SNCI), adjacent to the site to the north.
- The woodland qualifies as a habitat of principle importance; lowland mixed deciduous woodland, and has a value of up to regional (Sussex) importance. Other habitats are considered to be of up to local importance due to the presence and/or potential presence of protected species and those listed as Species of Principal Importance for Biodiversity in England under the Natural Environment and Rural Communities (NERC) Act 2006.
- Overall The Grove was assessed as having **moderate** to **high** potential for roosting bats. The stable block (Building 1) had a number of features of **moderate** to **high** value for roosting bats. A storage shed (Building 2) was assessed as having **negligible** value for roosting bats. The Multi Agency Services Building (Building 3) and the main school block (Building 4) had a number of features of **moderate** value for roosting bats.
- Five trees (Trees 1-5) on site were assessed as having **moderate** value for bat roosting and eight trees (Trees 6-13) on site were assessed as having **low** value for bat roosting.
- A dusk emergence and a single dawn re-entry survey were carried out at The Grove and recorded low levels of activity from common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus*. The majority of this activity was commuting and foraging along the northern site boundary, adjacent to a block of ancient semi-natural woodland.
- No bats were seen or suspected to emerge or re-enter from any of the buildings during these surveys.

- Further survey work will be required on trees identified as having moderate value for bats before any felling or pruning works take place. A protocol is outlined for reasonable avoidance measures for any felling or pruning works on trees identified as having low value for bats. These aspects are explained in Section 4.
- The survey area had value for commuting and foraging bats, as well as value for roosting. As such, recommendations are provided with regard to bats and lighting.
- Badgers *Meles meles* and invasive non-native plant species were confirmed to be present at the site. The site was assessed as having high potential to support breeding birds; moderate potential to support widespread reptiles, and hazel dormouse *Muscardinus avellenarius*; and low potential to support great crested newt *Triturus cristatus*
- Further survey work is recommended for badgers, widespread reptiles and hazel dormouse. Mitigation measures and enhancement measures are provided in Section 5.

1 Introduction

BACKGROUND

1.1 The Ecology Consultancy was commissioned by Miller Bourne Architects to undertake a Preliminary Ecological Appraisal of land at The Grove in St Leonards, East Sussex. A Preliminary Roost Assessment to assess the presence or likely absence of bats within buildings and trees at the site was also undertaken

SCOPE OF REPORT

1.2 This report of the Preliminary Ecological Appraisal is based on a desk study and a field survey using standard Phase 1 habitat survey methodology (JNCC 2010). This approach is designed to identify the broad habitat types present, to assess the potential of habitats to support protected species and to assist in providing an overview of the ecological interest at a site.

1.3 This report also details the Preliminary Roost Assessment for bats. This assessment followed good practice guidelines (Cowan, 2006; Hundt, 2012) and was undertaken by an experienced bat ecologist. A dusk emergence survey and dawn re-entry were carried out at the site by suitably qualified and experienced ecologists.

SITE CONTEXT AND STATUS

1.4 The site is located at National Grid Reference TQ784104 on the western edge of Hastings and accessed via Darwell Close. The site comprises the grounds and buildings associated with the former secondary school The Grove, which covers approximately 9.29 hectares. The buildings were formerly used for educational purposes, but are currently redundant.

1.5 The site comprises buildings, hard-standing and sports pitches, along with an area of woodland and a large pond located to the south-west. It is surrounded to the east, south and west by residential housing, and to the north by Dogkennel Wood, which is classified as ancient semi-natural woodland (ASNW) and is a Site of Nature Conservation Importance (SNCI).

1.6 A number of blocks of woodland; many of which are ancient, are located within 2km of The Grove. Combe Haven Site of Special Scientific Interest (SSSI) is located approximately 220m to the west of the site. The SSSI was notified due to its rich diversity of habitat (English Nature, 1985), which includes alluvial meadows, ditches,

fen, reedbed and woodland. A reservoir is present approximately 165m to the northwest of the site and there are a number of watercourses and water-bodies present within the local landscape; in particular those associated with the Combe Haven river to the west.

DESCRIPTION OF THE PROPOSALS

1.7 The current proposals for the site are to demolish all the existing buildings to enable the sale of the site for future residential development.

2 Methodology

DESK TOP STUDY

2.1 The Ecology Consultancy is a partner organisation with the Sussex Biodiversity Record Centre (SxBRC) and holds all of the regularly updated biodiversity data records gathered in the county. A search was undertaken of SxBRC data for records within a 2km radius of the site. Data remains the property of the original recorder and is reproduced with thanks. In addition, a search was completed using the on-line mapping service MAGIC (Defra 2014).

2.2 Information sourced from the desk-top study included the following:

- Statutory sites of nature conservation importance;
- Non-statutory sites designated as SNCIs at county level and of local conservation importance, and often recognised in Local Planning Authority development plans;
- Protected, rare and/or other noteworthy species; and,
- Habitats and Species of Principal Importance for the Conservation of Biodiversity in England as listed in Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006[1] which may be relevant to the site (hereby referred to as 'species or habitats of principal importance').

HABITAT SURVEY

2.3 The habitat survey following standard Phase 1 habitat survey methodology (JNCC 2010) was carried out on 20 March 2014 and covered the entire site. Habitats were described and mapped, and a habitat map of the site is included in Appendix 1 together with photographs in Appendix 2. A list of plant species was compiled (Appendix 3), together with an estimate of their abundance using the DAFOR[2] scale.

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1 Section 41 (S41) of the NERC Act (2006) includes a published list of habitats and species which are of principal importance for the conservation of biodiversity in England. It is used to guide decision-makers such as LPAs in implementing their duty under section 40 of the NERC Act (2006), to have regard to the conservation of biodiversity in England, when carrying out their normal functions Further details of the NERC Act can be found at: www.opsi.gov.uk/acts/acts2006/ukpga_20060016_en_1 (see Chapters 16 and 17).

2 The DAFOR scale has been used to try and measure the frequency and cover of the different plant species as follows: Dominant (D) - >75% cover, Abundant (A) – 51-75% cover, Frequent (F) – 26-50% cover, Occasional (O) – 11-25% cover, Rare (R) – 1-10% cover, Locally Frequent (LF) is also used where the frequency and distribution is patchy.

2.4 Incidental records of other species noted during the course of the habitat survey were also compiled and can be found in Appendix 4. Scientific names are given after the first mention of a species, thereafter, common names only are used. Nomenclature follows Stace (2010) for vascular plant species.

PROTECTED SPECIES ASSESSMENT

2.5 An assessment of the site's potential to support protected species has been carried out, based on the results of the desk-top survey, observations made during the site survey, an assessment of the suitability of on-site and adjoining habitat, and information on the distribution of these species. Those considered potentially present were further evaluated, as follows:

- The presence of nesting habitat for breeding birds, such as mature trees, dense scrub and hedgerows for evidence of bird nesting including bird song, old nests, faecal marks etc.;
- Scrub/grassland mosaic and potential hibernation sites for widespread species of reptile;
- Cover and topography suitable for badger *Meles meles* sett construction, as well as evidence of badger including runs, push-throughs, setts, hair and latrines;
- Assessment of any on-site water bodies as to their potential to support breeding amphibians, specifically the European Protected Species great crested newts *Triturus cristatus*, and suitable terrestrial habitats including rough grassland, scrub, woodland and refuges (logs and rubble piles);
- Suitable habitat for the European Protected Species dormouse *Muscardinus avellanarius* such as woodland and scrub, particularly when connected to suitable habitats across the wider landscape.

2.6 The site was also assessed for its potential to support invasive plant species listed on Schedule 9 of The Wildlife and Countryside Act 1981 (as amended).

2.7 The likelihood of occurrence is ranked as follows and relies on the findings of the current survey and an evaluation of existing data.

- **Negligible** – while presence cannot be absolutely discounted, the site includes very limited or poor quality habitat for a particular species or species group. No local records from a data search, surrounding habitat considered unlikely to support wider

populations of a species/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. Few or no records from data search, but presence cannot be discounted on the basis of national distribution, nature of surrounding habitats, habitat fragmentation, recent on-site disturbance etc.
- **Moderate** – on-site habitat of moderate quality, providing all of the known key requirements of given species/species group. Local records form the data search, within national distribution, suitable surrounding habitat. Factors limiting the likelihood of occurrence may include small habitat area, habitat severance, and disturbance.
- **High** – on-site habitat of high quality for given a species/species group. Local records provided by desk-top study. The site is within/peripheral to a national or regional stronghold. Good quality surrounding habitat and good connectivity.
- **Present** – presence confirmed from the current survey or by recent, confirmed records.

2.8 The purpose of this assessment is to identify whether more comprehensive Phase 2 surveys for protected species or mitigation should be recommended.

PRELIMINARY BAT ROOST ASSESSMENT

2.9 The building inspection and tree inspection were carried out on 27th November 2013 in suitable weather conditions. The inspections included the main school block, the Multi Agency Services building, and the stable block and associated storage shed; and all trees to the south of the access drive (Map 1). The survey methodologies followed best practice guidelines (Cowan, 2006; Mitchell-Jones and McLeish, 2004; Hundt, 2012). Equipment used and at hand during the building inspection and tree inspection included an extendable ladder, close-focusing binoculars, and high powered torch.

Building inspection

2.10 The building inspection comprised an internal and external inspection, including a detailed search of all accessible architectural features for bat droppings, urine staining, scratch marks, staining around suitable crevices and feeding remains. Any of those features were noted as secondary evidence. A high powered torch was used to illuminate recesses and crevices at height, and these were inspected using close focusing binoculars.

2.11 All external features, such as soffit boxes, roof tiles, hanging tiles, ridge areas and brickwork, were assessed for their suitability as bat roosting sites. Close focusing binoculars were used to inspect any possible bat access features as may be found along ridge areas. Any features that could potentially provide access into internal areas such as roof voids and cavity walls were noted.

2.12 Any splits, holes and crevices within brickwork or timbers, including around window and door frames, were examined both externally and internally for signs of staining and droppings using a high powered torch and close focusing binoculars. If any bat droppings or other evidence was found the search was then concentrated on any features in the vicinity that may have concealed roosting bats.

2.13 Inside the buildings all surfaces including floor areas were checked for discarded feeding remains and bat droppings. The beam from a high powered torch was shone along the length of each individual rafter, where appropriate to the roof type looking for bats, staining and droppings. The roofing material was also inspected for areas of overlapping materials, holes and potential access points into the ridge area. Any open water tanks were inspected for the presence of bat corpses.

Assessment criteria - buildings

2.14 The potential for the buildings to support roosting bats was assessed using the findings of the survey. The following criteria were used to determine the level of potential of the buildings for roosting bats:

- Negligible – While presence cannot be absolutely discounted there were no significant visible features that could be used by bats for roosting.
- Low – Small number of potential roosting features such as could be utilised by individual opportunistic roosting bats. Site situated within isolated habitat that could be used by foraging bats but which is not connected by prominent linear features such as woodland edge, hedgerows and tree lines.
- Moderate – Several potential roosting features in the buildings or other structures. There is surrounding habitat such as woodland, scattered trees, hedgerows suitable to support foraging and roosting bats. The site is connected with the wider landscape by linear features such as woodland edge, hedgerows and tree lines that could be used by commuting bats.
- High – Buildings or other structures, such as mines, caves, tunnels, ice houses and cellars, with numerous features of potential significance for roosting bats.

Surrounding landscape has high value habitat for roosting, foraging and commuting that is contiguous with on-site habitats. The site is connected with the wider landscape by strong linear features and may be close to known roosts or other potentially valuable habitat resources.

- Confirmed roost – Evidence indicates a building or other structure is used by bats, for example:
  - bats seen roosting or observed flying from a roost or freely in the habitat;
  - droppings, carcasses, feeding remains;
  - bats heard 'chattering' inside on a warm day or at dusk.

  Where possible, the number of bats likely to be using the roost site, and the species of bat(s) would be determined from the evidence available.

Tree inspection

2.15 The purpose of the tree inspection was to:

- identify any suitable arboreal features that could provide access points for bats, including loose, flaking or folded bark, cracks and fissures in limbs, woodpecker holes, or any downward-facing crevice or hole in the limbs or trunk; and
- identify signs indicating possible use by bats, such as; tiny scratches, rub marks and staining around access points, bat droppings in around or below access points.

Dusk emergence survey

2.16 The dusk emergence survey was carried out on 7th May 2014 in suitable conditions of at least 10˚C dusk temperature, and avoiding heavy rain, strong winds and mist. The survey commenced at least 15 minutes before sunset and continued for up to two hours after sunset.

2.17 The dusk emergence survey was carried out by four surveyors who were positioned to allow clear views of potential access points into the buildings. Three of the surveyors carried Batbox Duet detectors, the fourth used an EM3+ set to full spectrum recording and two Anabat SD1 remote detectors were also used to aid bat identification. The Anabat and EM3+ recordings were analysed post survey using Analook™. Surveyors recorded the time of bat passes, along with the species and activity, where apparent. All surveys followed accepted best practice guidelines (Mitchell-Jones and McLeish 2004; Hundt 2012).

Dawn emergence survey

2.18 The dawn re-entry survey was carried out on 21st May 2014 in suitable conditions of at least 10˚C and avoiding heavy rain, strong winds and mist. The survey commenced two hours before sunrise and concluded at sunrise.

2.19 The dusk emergence survey was carried out by four surveyors who were positioned to allow clear views of potential access points. Each surveyor carried a Batbox Duet and two Anabat SD1 remote detectors were used at the site. The Anabat recordings were analysed post survey using Analook. Surveyors recorded the time of bat passes, along with the species and activity, where apparent. All surveys followed accepted best practice guidelines (Mitchell-Jones and McLeish 2004; Hundt 2012).

Assessment criteria - trees

2.16 All semi-mature or mature trees that may have had some bat potential were assessed using the Cowan Scale (Cowan, 2006). The following values were assigned in considering the availability of suitable features for roosting bats:

- 0 – no value – No visible features that could be used by bats for roosting.
- 1 – low value – One or two minor features, possible associated with feeding or night-time roosts, such as:
  - sparse ivy *Hedera helix*;
  - minor branch splits or fissures;
  - small areas of loose bark.
- 2 – moderate value – Features that may provide a more secure site for individuals or small groups of bats, such as:
  - dense ivy;
  - significant branch splits;
  - small cavities such as woodpecker holes.
- 3 – high value – Features of particular significance, suitable for high priority roost such as maternity roosts and likely to be used by larger groups of bats, such as:
  - features that provide rare or uncommon conditions in the local area;
  - large cavities or extensive branch or trunk splits;
  - multiple features in the same tree.
- 4 – confirmed roost – Evidence indicating use by bats, such as:

- droppings, carcasses, feeding remains;
- bats heard 'chattering' inside on a warm day or at dusk;
- bats seen roosting or observed flying from a feature.

SITE EVALUATION

2.17 The site has also been evaluated by broadly following guidance issued by the Chartered Institute of Ecology and Environmental Management (CIEEM 2006) which evaluates sites according to a geographic scale (significance at the international level down to the local level) and using a range of criteria for assigning ecological value, as follows:

- Presence of sites or features designated for their nature conservation interest. Examples include internationally or nationally designated sites such as Special Areas of Conservation (SACs) and Sites of Special Scientific Interest (SSSIs), locally designated sites such as Local Nature Reserves (LNRs) and SNCIs;
- Biodiversity value, for example, habitats or species which are rare or uncommon, species-rich assemblages, species which are endemic or on the edge of their range, large populations or concentrations of uncommon or threatened species, and/or plant communities that are typical of valued natural/semi-natural vegetation types;
- Secondary and supporting value, for example, habitats or features which provide a buffer to valued features or which serve to link otherwise isolated features;
- Presence of legally protected sites or species;
- Presence of Sussex Biodiversity Opportunity Areas (Sussex Biodiversity Partnership, 2009); and
- Presence of Species and Habitats of Principal Importance for Conservation under the Natural Environment and Rural Communities (NERC) Act, 2006.

LIMITATIONS

2.18 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no investigation can ensure the complete characterisation and prediction of the natural environment.

Data Search

2.19 It is important to note that, even where data is held, a lack of records for a defined geographical area does not necessarily mean that there is a lack of ecological interest the area may simply be under-recorded.

2.20 Where only four figure grid references are provided for protected species, their precise location can be difficult to determine and they could potentially be present anywhere within the given 1km x 1km square.

Habitat Survey

2.21 The Phase 1 habitat survey does not constitute a full botanical survey, or a Phase 2 pre-construction survey that would include accurate GIS mapping for invasive or protected plant species.

2.22 The survey was conducted outside of the optimum survey season (April to September inclusive) and as such, plant species that complete their life cycle later in the year may not have been evident.

Protected Species Assessment

2.23 The protected species assessment provides a preliminary view of the likelihood of protected species occurring on the site. This is based on the suitability of the habitat, known distribution of the species in the local area provided in response to our enquiries and any direct evidence on the site. It should not be taken as providing a full and definitive survey of any protected species group. It is only valid at the time the survey was carried out. Additional surveys may be recommended if on the basis of the preliminary assessment or during subsequent surveys it is considered reasonably likely that protected species may be present.

Preliminary Roost Assessment

2.24 A number of roof voids were present in the main school block, however access was only possible into one of these roof voids; above the library. The remaining roof voids either had no visible access points or in the case of one roof void; the floor of the roof void was considered too unstable to safely enter.

2.25 No access was available to the Multi Agency Services building or the stable block, and the survey of both of these buildings was limited to the external inspection.

2.26 Much of Buildings 1, 2 and 3 were surrounded by leaf litter at the time of the survey and any bat droppings would be likely to degrade quickly in such an environment, making any such evidence difficult to identify in a survey

2.27 A number of the trees were still in partial leaf at the time of the tree inspection, which could have obscured some features of value to bats.

2.28 Bats are highly mobile animals and can move roost sites both within and between years. Where undisturbed, secondary evidence of bats inside a building is likely to be detectable throughout the year, however the detection of small numbers of crevice dwelling species may remain problematic in some cases, such as where droppings accumulate within an inaccessible void.

3 Results

DESK TOP STUDY

Designated Nature Conservation Sites

3.1 The site does not form part of a statutory[3] or a non-statutory[4] nature conservation site. Within a 2km radius of the site there are four statutory and 15 non-statutory nature conservation sites. See Table 1 for details.

Table 1: Designated Nature Conservation Sites within 2km of the site

Site Name	Habitats/Species of Interest	Distance from Site
Statutory Designated Sites – SSSIs and LNRs		
Church and Robsack Wood LNR	**Habitats:** ancient ghyll woodland and semi-improved meadow	165m north
Combe Haven SSSI	**Habitats:** a rich diversity including alluvial meadows, ditches, fen, reedbed and woodland.	220m west
Marline Valley Woods SSSI	**Habitats:** ancient ghyll woodland and species-rich unimproved grassland.	1000m northwest
Old Road Gill and Coronation Wood LNR	**Habitats:** ancient ghyll woodland, tall herb fen and open water.	1865m northeast
Non-statutory Designated Sites - SNCIs		
Wishing Tree SNCI	**Habitats:** ancient semi-natural woodland, areas of scrub and grassland, and reservoir.	adjacent to the north
Old Filsham Golf Course SNCI	**Habitats:** developing scrub and open meadow habitats, the site is considered integral to a larger network of important wildlife habitat.	85m southwest
Ponds Wood SNCI	**Habitats:** semi-natural woodland with associated stream, meadows and pond.	245m east

[3] Principally sites receiving protection under the Wildlife and Countryside Act 1981 (as amended) and including LNRs, SSSIs, SACs and Special Protected Areas (SPAs), amongst others.

[4] They typically comprise a series of sites designated a county level that are recognised to be of local conservation importance and are often included in Local Planning Authority (LPA) development plans. In other areas of the country they are sometimes called SINCs (Sites of Importance for Nature Conservation), CWSs (County Wildlife Sites) or SBIs (Sites of Biological Importance). All are described generally as Local Wildlife Sites by the UK Government.

Site Name	Habitats/Species of Interest	Distance from Site
Filsham Reedbed SNCI	**Habitats:** one of the largest reedbeds in Sussex.	405m southwest
Wainwright Close SNCI	**Habitats:** species-rich grassland, scrub and pond, mature hedgerows.	1015m northwest
South Saxons SNCI	**Habitats:** reedbed, willow carr, rough grassland and meadow.	1025m south
Marline Valley Wood SNCI	**Habitats:** ancient ghyll woodland and species-rich unimproved grassland.	1000m northwest
West St Leonards Railway Embankments SNCI	**Habitats:** woodland, scrub and tall herb.	1150m south
Caves Road Cliffs SNCI	**Habitats:** south-facing cliff slope with diversity of plants and invertebrates.	1370m south
Bulverhythe Shingle Beach and Cliffs SNCI	**Habitats:** cliff and shingle beach with good diversity of plant species.	1475m south
Hollington Valley SNCI	**Habitats:** ancient woodland, meadow with willow carr, pond and open running water	1740m northeast
Old Roar Ghyll	**Habitats:** ancient ghyll woodland, tall herb fen and open water.	1865m northeast
Disused Railway, Crowhurst	**Habitats:** woodland, species-rich grassland and two disused pits	1890m northwest
Disused Railway, Bexhill	**Habitats:** secondary woodland, scrub, grassland and tall herb, which links adjacent areas of ancient woodland and scrub	1990m west

Habitats

Ancient woodland

3.2 The area of woodland (Dogkennel Wood) immediately adjacent to the north of the site is classified as ancient semi-natural woodland (ASNW) on the national ancient woodland inventory (Defra 2014). This woodland is also designated as a SNCI (see Table 1). A number of blocks of ASNW are found within the local landscape, principally to the north and east of the site.

Habitats of Principal Importance

3.3 The wooded area in the southwest part of the site is identified by Defra (2014) as being Deciduous Woodland. There are several types of deciduous woodland habitat of principal importance in the UK, and the Defra information does not make clear which type this mapping data refers to. This site is located on Weald Clay and it is, therefore, likely to be lowland mixed deciduous woodland.

Standing and running water

3.4 There is one pond in the southwest part of the site, which is fed by a small brook flowing north-east to south-west.

3.5 There are six standing water-bodies identifiable on 1:10,000 Ordnance Survey maps within 500m of the site. The closest of these is a reservoir to the north of Dogkennel Wood, approximately 160m from the site and linked to the on-site pond by grassland, scrub and woodland habitat. The remaining water-bodies are all separated from the site by main roads and residential properties to the north and east, or railway lines and residential properties to the south.

Protected, Rare and/or Noteworthy Species

Birds

3.6 Twenty five birds protected under Schedule 1[5] of the Wildlife and Countryside Act 1981 (as amended) were recorded within 2km of the site. Fifteen bird species of principle importance were recorded within 2km of the site. Thirteen Birds of Conservation Concern[6] (BoCC) red list species and 21 BoCC amber list species (Eaton *et al.* 2009) were recorded within 2km of the site. These species are a mixture of farmland, woodland and wetland specialists, along with more cosmopolitan species. The majority of the bird records came from Marline Valley, Combe Haven and Filsham Reedbed, all of which are important sites for birds.

[5] Schedule 1 provides protection to birds and their dependent young at or near a nest.

[6] Birds of Conservation Concern status is prioritised into high concern (Red), medium concern (Amber) and low concern (Green) (Eaton et al, 2009). Red list species are those that are globally threatened according to the IUCN criteria; those whose population or range has declined rapidly in recent years; and those that have declined historically and have not shown a substantial recent recovery. Amber list species are those with an unfavourable conservation status in Europe; those whose population or range has declined moderately in recent years; those whose population has declined historically but made a substantial recent recovery; rare breeders; and those with internationally important or localised populations. Green list species are those that fulfil none of the criteria.

Reptiles

3.7 The data search returned records for two reptile species, both of which are species of principal importance and protected under the Wildlife and Countryside Act 1981 (as amended) - common lizard *Zootoca vivipara* and grass snake *Natrix natrix* . The closest record was a common lizard 85m to the south of the site.

Bats

3.8 The data search returned records for seven species of bat – serotine *Eptesicus serotinus*, Daubenton's bat *Myotis daubentonii*, whiskered bat *Myotis mystacinus*, Natterer's bat *Myotis nattereri*, noctule *Nyctalus noctula* Nathusius' pipistrelle *Pipistrellus nathusii* and brown long-eared bat *Plecotus auritus*. Further records were returned for pipistrelle bat *Pipistrellus* spp. and unidentified bat Chiroptera spp.

3.9 There were a total of 23 recent (last 20 years) records returned within a 2km radius of the site. The closest record was a 2007 record of 36 pipistrelle bats 160m to the north-east. The most recent record was a 2010 record of a Natterer's bat 1.1km to the east of the site.

Great crested newt

3.10 The most recent records for great crested newt are from 2012. These records are for ponds approximately 1,500m from the site and separated from it by railway lines.

Hazel dormouse

3.11 There are records of hazel dormouse from Marline Valley Woods, approximately 1,000m northwest of the site.

Species of principal importance

3.12 A number of species of principal importance were recorded for which there is suitable habitat at the site. These included common toad *Bufo bufo* and butterfly species: wall *Lasiommata megera* and small heath *Coenonympha pamphilus*.

HABITAT SURVEY

Overview

3.13 The site predominantly comprised improved and poor semi-improved grassland, buildings and hard-standing, and woodland. Additionally, small areas of hedgerow, scattered trees, dense and scattered scrub, and compost and wood piles were recorded.

Woodland and scrub

3.14 The south-western section of the site consisted an area of woodland approximately 1.1ha (Photograph 1). This canopy was predominantly ash *Fraxinus excelsior*, pedunculate oak *Quercus robur* and sycamore *Acer pseudoplatanus* with a good age structure amongst the tree species. The understorey was generally well-developed although patchy in places (Photograph 2), consisting primarily of hawthorn *Crataegus monogyna*, hazel *Corylus avellana* and holly *Ilex aquifolium*. Ivy *Hedera helix* was abundant in the field layer, with frequent lesser celandine *Ranunculus ficaria*, bramble *Rubus fruticosus* agg., lords-and-ladies *Arum maculatum* and honeysuckle *Lonicera periclymenum*. Species recorded as occasional to rare in the ground flora included bluebell *Hyacinthoides non-scripta*, moschatel *Adoxa moschatellina*, hart's-tongue *Phyllitis scolopendrium*, butcher's-broom *Ruscus aculeatus*, pendulous sedge *Carex pendula*, primrose *Primula vulgaris* and ramsons *Allium ursinum*.

3.15 Of the species mentioned above for ground flora, seven are listed as ancient woodland indicator species in The Wildflower Key (Rose, 2006) and are highlighted in the species list in Appendix 4 of this report.

3.16 A small area of tree planting (Photograph 3) was noted on the south-western edge of this woodland, along with the non-native species holm oak *Quercus ilex* (Target Note 8). The western edge of the woodland was bounded by residential properties and evidence of dumping of garden cuttings (Target Note 9) was seen along some sections of this boundary.

3.17 The access driveway to The Grove School passed close to the edge of the wooded area. To the east of this driveway the woodland was generally more open and comprised a number of mature pedunculate oaks. An area of rhododendron *Rhododendron ponticum* was located on the northern edge of the driveway (Photograph 4, Target Note 10).

3.18 Scattered trees and scrub were present widely across the survey site. Species included pedunculate oak, ash, beech *Fagus sylvatica*, horse chestnut *Aesculus hippocastanum*, sweet chestnut *Castanea sativa*, gorse *Ulex europaeus*, poplar *Populus* spp. and a number of conifer species.

Grassland

3.19 The south-eastern section of the site was classified as improved grassland (Photograph 5) and consisted mainly of coarse grasses such as Yorkshire fog *Holcus lanatus*, perennial rye grass *Lolium perenne*, bents *Agrostis* spp. and meadow-grasses *Poa* spp. Herbs were limited and included daisy *Bellis perennis*, dandelion *Taraxacum officinale* and common chickweed *Stellaria media*.

3.20 In the west of the site was an area of grassland with a wider range of herb species, classified as poor semi-improved grassland (Photograph 6). In addition to the grasses noted above a number of herb species were recorded including yarrow *Achillea millefolium*, creeping buttercup *Ranunculus repens*, dove's-foot crane's-bill *Geranium molle*, spotted medick *Medicago arabica*, common ragwort *Senecio jacobaea*, germander speedwell *Veronica chamaedrys* and common knapweed *Centaurea nigra*. Parts of this area were much sparser with areas of bare ground found amongst the grassland (Photograph 7, Target Note 3).

Standing and running water

3.21 A pond was located in the south-west of the site within the woodland (Photograph 8). The pond was approximately 100m^2 in area. At the time of the survey there was evidence of the pond drying out around its periphery, as such it was judged as occasionally drying out. The pond was judged as having poor water quality, with rubbish such as tyres and waste wood noted in the water, and 60% of its margins being shaded. Waterfowl were few in number and fish were absent. Macrophyte cover was 5% and the surrounding woodland habitat provided good terrestrial habitat. These factors were used to generate a habitat suitability index score for the pond of 0.59, classifying it as below average.

3.22 The pond was fed by a small watercourse that was approximately 20cm wide and 2cm deep at the time of the survey (Photograph 9).

Target Notes

Target Note 1

3.23 Compost heap.

Target Note 2

3.24 Log pile.

Target Note 3

3.25 Area of sparser vegetation.

Target Note 4

3.26 Chipped wood pile.

Target Note 5

3.27 Japanese knotweed *Fallopia japonica* patch.

Target Note 6

3.28 Badger sett consisting of three holes, not showing signs of current use at the time of the survey.

Target Note 7

3.29 Badger sett consisting of ten holes, not showing signs of current use at the time of the survey.

Target Note 8

3.30 Holm oak *Quercus ilex* growing on the woodland edge.

Target Note 9

3.31 Garden waste and rubbish in woodland.

Target Note 10

3.32 Rhododendron patch.

Incidental species records

3.33 Two badger setts were recorded in the woodland at the site. Sett 1 (Photograph 10, Target Note 7)) had ten holes, all with considerable debris inside (Photograph 11), and no signs of badger activity such as digging, old bedding, or fresh latrines. This sett is most likely to be functioning as a subsidiary sett for a badger social group, and it was not considered to be in current use at the time of the survey. Sett 2 (Target Note 6) had three holes and was located within 20m of Sett 1. Sett 2 did not show any signs of current use and is most likely to be functioning as an outlier sett to the same social group of badgers. This badger social group is likely to have their main sett off-site probably in one of the nearby woods.

3.34 A number of bird, butterfly and mammal species were noted incidentally during the Phase 1 habitat survey (Appendix 5). The majority of these species were utilising the woodland, scrub and poor semi-improved grassland in the west of the site. Dunnock *Prunella modularis* was heard singing in the site. This is a BoCC amber list species (Eaton *et al.* 2009) and a species of principal importance.

3.35 Japanese knotweed was recorded in three discrete areas of the site (Photograph 12, Target Note 4).

PROTECTED AND INVASIVE SPECIES ASSESSMENT

3.36 The habitats on site were assessed as to their likelihood to provide sheltering, breeding and/or foraging habitat for protected and notable species. Those species for which the site provided suitable habitat were further evaluated, as follows:

- breeding birds;
- widespread reptiles;
- badger;
- great crested newt; and
- hazel dormouse.

3.37 The site was also assessed for its potential to support invasive plant species including those listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). The results of the assessment are presented in Table 2 below.

3.38 The relevant legislation and policies relating to protected species and invasive species are presented in Appendix 6.

Table 2: Assessment of potential presence of protected species and invasive plant species

Species	Main legislation and policy (see Appendix 5)	Reason for consideration	Likelihood of occurrence
Breeding birds	Wildlife and Countryside Act 1981 (as amended) Schedule 1 and 8.	Suitable habitat for a range of breeding birds was present in woody habitat on-site and immediately adjacent.	**HIGH –** Nesting opportunities were considered to be offered predominantly by the woodland, scattered trees, dense and scattered scrub on the site. In addition the buildings at the site offer opportunities for species that have adapted to living in urban environments. These habitats offer suitable nesting opportunities for a range of birds species including BoCC and species of principal importance including dunnock and turtle dove; all of which were recorded in the desk top study and/or on-site.
Widespread reptiles	Wildlife and Countryside Act 1981 (as amended) Schedule 5.	Suitable habitat for sheltering, breeding, foraging and hibernating reptiles was present on-site and immediately adjacent. The data search returned records for grass snake and common lizard in the local area.	**MODERATE –** A mosaic of suitable reptile habitat is present at the site including open ground with low vegetation, bordered by scattered and dense scrub, log piles and earth banks. This combination of habitats has the potential to provide for the habitat requirements of reptiles throughout the year.
Badger	Protection of Badgers Act 1992	A widespread species in the UK, ranging over large distances. The site provides suitable sett building, breeding and foraging habitat.	**PRESENT –** Two badger setts were recorded at the site, although neither showed signs of current use at the time of the survey. The habitat on site is suitable for this species and is contiguous with further suitable habitat immediately adjacent and within the wider landscape. Due to the presence of the two setts it is likely this site falls within the territorial boundary of at least one clan of badgers and that they will forage and commute within the site.
Great crested newt	Wildlife and Countryside Act 1981 (as amended) –Schedule 5. The Conservation of Habitats and Species Regulations 2010 (as amended) – Schedule 2.	Potentially suitable sheltering, foraging and hibernating habitat was present on site. Using 1:10000 OS maps, there were six ponds identified within 500m of the site. The closest of these was 160m north of the site with the remaining five ponds being isolated by dispersal barriers.	**LOW** – The on-site pond was assessed as being of below average suitability for great crested newt. However, the adjacent habitat was considered to be good for this species. The on-site pond retained good connectivity to a reservoir approximately 380m to the north-west. However, it was isolated from further pond in the landscape by train lines, major roads and/or residential areas; all of which are considered to be dispersal barriers for great crested newt.

Species	Main legislation and policy (see Appendix 5)	Reason for consideration	Likelihood of occurrence
Hazel dormouse	Wildlife and Countryside Act 1981 (as amended) – Schedule 5. The Conservation of Habitats and Species Regulations 2010 (as amended) – Schedule 2.	There are suitable habitats for sheltering, breeding, foraging and hibernating dormice on site.	**MODERATE** – woodland, and scattered and dense scrub on-site and immediately adjacent offered potential habitat for hazel dormouse. There was a reasonable diversity of species of importance for hazel dormouse foraging and/or nest building, including hazel, bramble, honeysuckle, hawthorn, ash and pedunculate oak. The structural diversity within the on-site woodland was good, however the area of habitat was small. A link is maintained from the on-site woodland to further suitable habitat to the north including Marline Valley Woods where dormice are known to occur. There are occasional gaps in woodland and/or scrub cover of up to 50m however dormice are known to cross such gaps, and there is considered to be a moderate likelihood of a remnant dormouse population at this site.
Invasive Plant species	Section 14 and Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended)	Invasive species are widespread in many habitats and commonly found on disturbed sites, around woodland and stream/ditch edges. A number of commonly planted ornamental species are on the Schedule 9 list.	**PRESENT –** Japanese knotweed and rhododendron were both recorded during the Phase 1 habitat survey. Both these plants are listed on Schedule 9.

PRELIMINATY ROOST ASSESSMENT

BUILDING INSPECTION

Overview

3.39 The building inspection involved four buildings - the main school block, the Multi Agency Services building, the stable block and an associated storage shed. The buildings were of a varied age and construction ranging from brick to corrugated metal. At the time of the survey the buildings were no longer in current use, with the site closing as a school in July 2013. A fire had occurred in part of the eastern section of the main school block in the days before the survey.

3.40 Each building is detailed individually below with a site plan provided in Appendix 1 and photographs in Appendix 2.

Building 1 - Stable Block

3.41 The stable block, a single-storey brick construction (Photograph 13), had wooden cladding to the top of the southern elevation. The mortar had decayed in several places, in particular on the southern elevation providing cracks in the brickwork. The windows of the stable block had been filled in with breeze blocks. Much of the north and east elevations and roof of the stable block were obscured by ivy *Hedera helix* (Photograph 14).

3.42 The roof was steeply pitched with concrete roof tiles and ridge tiles. There were approximately ten loose or cracked roof tiles noted on the southern elevation, a cracked ridge tile on the southeast corner of the roof, and a lifted ridge tile on the west edge of the roof ridge (Photograph 15). The building had closed eaves with wooden soffit boards. In places these were not flush to the building and allowed potential access points for bats to enter the interior of the building. One skylight was present in the roof of the south elevation; this was covered over with a grill and there was an area of loose flashing underneath.

3.43 A hole in the eastern elevation of the stable block provided direct access into the roof void (Photograph 16), and using binoculars it was ascertained that the roof void had wooden rafters and a Tyvek roof lining, although the condition of the materials could not be inspected. The west elevation was rendered and some debris adhered to the wall under the eaves. None of the debris was positively identified as bat droppings and no bat droppings were found on the floor beneath the eaves.

Assessment

3.44 No evidence of bats or their roosts was identified in Building 1. However, internal inspection was not possible and the building could only be assessed for its suitability for bats from its exterior features. Features such as cracked roof and ridge tiles provided potential roosting opportunities for bats, and the presence of ivy over much of the north elevation may have obscured further potential roosting sites as well as providing a potential roosting site. The presence of these features, in combination with the adjacent ASNW and clear flightlines to suitable bat foraging habitat in the Combe Haven valley contribute to this building being assessed as having **moderate to high** potential to support roosting bats.

Building 2 - Storage Shed

3.45 To the north of Building 1 was a single-storey storage shed with metal corrugated roof and walls (Photograph 17). These materials fluctuate in temperature, offering less favourable roosting environments for bats, which prefer more stable conditions.

Assessment

3.46 No evidence of bats or their roosts was identified in Building 2. Therefore, this building was assessed as having **negligible** potential to support roosting bats.

Building 3 - Multi Agency Services Building

3.47 The Multi Agency Services building (Photograph 18) was a three-storey brick construction with concrete roof tiles. A pitched asbestos roof was present on the eastern elevation. Wooden cladding was present on the western elevation, and wooden fascia boards were present around the building. There was a hole in the fascia board on the eastern elevation (Photograph 19). Wooden soffits were present on the southern and western elevations; these were intact. On the southern elevation, lead flashing was present on the ground floor roof, which had begun to lift away from the roof. The majority of the lower windows and doors were boarded. The building was not accessible at the time of the survey so the presence of roof voids could not be established.

Assessment

3.48 No evidence of bats or their roosts was identified in Building 3. However, internal inspection was not possible and the building could only be assessed for its suitability for bats from its exterior features. The hole in the fascia board and gaps under flashing provided potential access and roosting opportunities for bats. The presence of these

features, in combination with suitable adjacent habitat, results in this building being assessed as having **moderate** potential to support roosting bats.

Building 4 – Main School Block

Overview

3.49 The main school block comprised a series of large interconnected brick built buildings, incorporating a range of styles (Photograph 20) ranging from one- to three-storeys. Bitumen-covered flat-roofed areas included the eastern and western section of the main school block, whilst much of the central area had pitched roofs with concrete tiles.

Main School Block – East

3.50 The eastern section of the main school block was predominantly single-storey buildings of brick construction with bitumen-covered flat roofs (Photograph 21). Large windows were found around all buildings, which, due to the vacant status of the school, where boarded at the time of the survey.

3.51 One stand-alone building, also part of the music block was located at the far east of the main school block (Photograph 22). This was of brick construction with large windows that were partially boarded and a bitumen covered flat roof with no soffits or timber facia boards.

3.52 A two-storey brick-built clock tower was present above a former ICT room (Photograph 23). This was flat roofed with three windows present on the upper storey allowing light in to the tower. The clock mechanism was no longer present in the tower, and the hole left was blocked from the inside by a metal grill that remained intact. Three holes in the brickwork were evident on the western elevation of the clock tower.

3.53 The interior of the clock tower was accessed via a metal ladder from a storage room, which had suffered smoke damage during the recent fire at the school. The interior was painted brick and remained light due to the presence of three windows on the upper storey. An apparently redundant lift shaft was present in the eastern corner of the clock tower. There was some evidence of previous ingress by birds to the clock tower, although all potential access points i.e. through the clock appeared secure at the time of the survey. A securely sealed metal water tank and associated pipework was present on each of the two floors of the clock tower.

Main School Block – Centre

3.54 The central section of the main school block (Photographs 24 and 25) was of brick construction and predominantly made up of interconnected three-storey buildings with pitched concrete tile covered roofs. Wooden fascias and wooden soffit boxes were present, which were predominantly in tact although some cracks were evident on the southern elevation and on the gymnasium building. Two brick chimneys were present on the central section of the main school block, and wooden cladding was present on some gable ends (Photograph 26), which had become misaligned in places. An area of loose lead flashing was present on the northern elevation of the sports hall close to fire escape stairs. The majority of the ground floor windows were boarded at the time of the survey. A drainage channel was present in the brickwork on the southern elevation.

3.55 Access was only possible in to the roof void above the library. This roof void was approximately 2m from floor to apex and was unboarded with fibreglass insulation to the floor. There were wooden beams and rafters that appeared to be in good condition, with Tyvek insulation lining the underside of the roof. The roof void was fairly cluttered with covered metal water tanks and metalwork that appeared to be part of a ventilation system. Direct access was available in to the roof void through cracks in the gable end (Photograph 27). No evidence of bats was found within the roof void.

Main School Block – West

3.56 The western section of the main school block consisted of interconnected two-storey buildings of brick construction with bitumen-covered flat roofs (Photograph 28). Large windows were present, with the majority of those on the ground floor boarded at the time of the survey. Painted wooden fascias were present around the buildings, which were peeling but otherwise appeared intact. Loose flashing was evident around a large brick chimney on the kitchen building (Photograph 29). A number of ventilation gaps were evident in the brickwork.

Assessment

3.57 No evidence of bats or their roosts was identified in Building 4. However, not all roof voids were accessible for internal inspection. Features including loose flashing, cracks in the soffit boxes, and misaligned wooden cladding provided potential roosting opportunities for bats. The presence of these features, in combination with the proximity of the building to suitable bat foraging and commuting habitat results in this building being assessed as having **moderate** potential to support roosting bats.

TREE INSPECTION

Overview

3.58 A number of trees were found across the site, in particular to the north of the main school block, and along the access drive. The site boundary also included an area of woodland in the southeast of the site, which was not subject to the tree inspection.

3.59 Trees ranged from young saplings to mature individuals. The most frequent species were pedunculate oak *Quercus robur*, ash *Fraxinus excelsior*, horse chestnut *Aesculus hippocastanum*, and sycamore *Acer pseudoplatanus,* with yew *Taxus baccata*, beech *Fagus sylvatica*, hazel *Corylus avellana* and poplar *Populus* spp. also present.

3.60 No evidence of bats was found during the tree inspection. Thirteen of the trees assessed were considered to have features of between low and moderate value for bats. These trees are detailed below with a site plan provided in Appendix 1 and photographs in Appendix 2. It should be noted that further features may become visible if a climbed inspection were undertaken on the trees.

Table 3: Summary of tree inspection results

Tree number and species	Description of features	Assessment of value for bats
Tree 1 – mature pedunculate oak (Photograph 30)	Rot holes approximately 5m high on the northwest aspect and 7m high on the north aspect. A limb on the east aspect had lifted bark at approximately 10m high. Several of the limbs had fractured ends – the most significant on the west aspect.	**2 – moderate value**
Tree 2 – mature pedunculate oak (Photograph 31)	Rot holes at approximately 2m high on the northwest and west aspects, which appeared to be downward-facing and therefore considered of higher value for bats as they are less likely to fill with water and debris.	**2 – moderate value**
Tree 3 – semi-mature ash (Photograph 32)	Woodpecker holes at approximately 5m and 7m on the northeast aspect and a crack at approximately 0.5m. A fractured limb was present on the southwest aspect and the fallen limb, which lay next to the tree was noted to be decaying.	**2 – moderate value**
Tree 4 – mature pedunculate oak (Photograph 33)	Five rot holes located between approximately 2m and 5m on the northern and eastern aspects. Two of these holes were downward-facing and therefore considered of higher value for bats as they are less likely to fill with water and debris.	**2 – moderate value**

Table 3: Summary of tree inspection results

Tree number and species	Description of features	Assessment of value for bats
Tree 5 – mature ash (Photograph 34)	Dense ivy cover over the majority of the trunk and limbs.	**2 – moderate value**
Tree 6 – semi-mature horse chestnut (Photograph 35)	Rot hole at approximately 2m on the northwest aspect. This appeared to be downward-facing however it was seeping, which could indicate the cavity inside is full of water.	**1 – low value**
Tree 7 – semi-mature poplar (Photograph 36)	Epicormic growth around base and relatively dense ivy growth around most of the trunk.	**1 – low value**
Trees 8-11 – semi-mature pedunculate oaks (Photograph 37)	All had relatively dense ivy cover round most of their trunks.	**1 – low value**
Tree 12 – mature pedunculate oak (Photograph 38)	No visible features however due to the age and size of the tree it is considered that a climbing inspection may result in features being found that have potential to support bats that were not visible from the ground inspection.	**1 – low value**
Tree 13 – semi-mature horse chestnut (Photograph 39)	A rotten limb and a rot hole approximately 4m high on the southeast aspect. The hole appeared to be downward-facing and therefore is considered of higher value for bats as it is less likely to fill with water and debris.	**1 – low value**

DUSK EMERGENCE SURVEY – 7th May 2014

3.61 Sunset was at 20:30. The temperature at the start was 12˚, cloud cover was 70% and there was a light breeze (Beaufort Scale 2-3).

3.62 No bats were seen or suspected to emerge from any of the buildings at The Grove. The survey recorded a low level of activity in the grounds of The Grove from two species – common pipistrelle *Pipistrellus pipistrellus* and soprano pipistrelle *Pipistrellus pygmaeus*.

3.63 Across the site 29 passes attributed to common pipistrelles were recorded by the surveyors and the Anabat loggers between 20:55 and 22:05. Three passes attributed to soprano pipistrelle were recorded by the surveyors and the Anabat loggers between 21:20 and 21:59. Some of the passes recorded will have been double counts (i.e. where an Anabat logger was located in close proximity to a surveyor).

3.64 The majority of the bat activity recorded was focused along the northern boundary of the site adjacent to the woodland edge, with both commuting and foraging behaviours observed. A low number of social calls were also recorded by the Anabat logger.

DAWN RE-ENTRY SURVEY – 21 May 2014

3.65 Sunrise was at 05:01. The temperature at the start was13.5˚C, cloud cover was 90% and there was a light breeze (Beaufort Scale 2).

3.66 No bats were seen or suspected to re-enter or emerge from any of the building at The Grove. The survey recorded a low level of activity from two species – common pipistrelle and soprano pipistrelle.

3.67 Across the wider site 56 passes attributed to common pipistrelles were recorded by the surveyors and the Anabat loggers between 03:12 and 04:37. Four passes attributed to soprano pipistrelles were recorded by the surveyors and the Anabat loggers between 03:07 and 04:41. Some of the passes recorded will have been double counts (i.e. where an Anabat logger was located in close proximity to a surveyor).

3.68 The majority of the bat activity recorded was along the northern boundary of the site adjacent to the woodland edge, with both commuting and foraging behaviours observed. Towards the end of the survey commuting by common pipistrelles south through the site along the western wooded edge was also noted.

4 Evaluation

4.1 Habitats and species on the sites were evaluated following standard guidance on ecological impact assessment published by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2006) using the recommended geographic frame of reference. Key aspects of relevant planning policy and legislation regarding conservation is provided in Appendix 5.

Table 4: CIEEM Evaluation

Criteria	Remarks
Features of International Importance	• The site is not subject to any international statutory nature conservation designations.
Features of National Importance	• The site is not subject to any national statutory nature conservation designations and it is not considered that any habitats or populations or assemblages of species within the site would meet the criteria for the designation of SSSIs at an appropriate geographic level[7]. • There are two sites of national importance (both SSSIs) within 2km of the site, the closest of which is Combe Haven SSSI 220m west. The proposed development is not anticipated to have any adverse direct impacts on this site.
Features of Regional (Sussex) Importance	• The site is not subject to any non-statutory nature conservation designations. The closes site of local importance is Wishing Tree SNCI, immediately adjacent to the north. • The area of on-site woodland is considered to qualify as the habitat of principle importance lowland mixed deciduous woodland and was identified during the desk top study as such (Defra 2014). • Due to the presence of this habitat of the site may also qualify as a SNCI using criteria developed by East Sussex County Council or the Defra site selection criteria.
Features of Local or District Importance	• The site has the potential to support the following protected species and/or species of principal importance: ○ Breeding birds; ○ Widespread reptiles; ○ Great crested newt; and ○ Mammals, including hazel dormouse, badger and bats;

7 JNCC Guidelines for selection of biological SSSIs http://jncc.defra.gov.uk/page-2303#download

Table 4: CIEEM Evaluation

Criteria	Remarks
	• It is considered likely that any populations of these species (if present) would be of importance up to a local or district level. • Habitats present on-site including woodland, poor semi-improved grassland, scattered trees, and dense and scattered scrub could support the species listed above and could therefore assume local or district importance.
Features of Value within the immediate vicinity of the site	• Other habitats present on site including hard-standing, bare ground and improved grassland are likely to be of some value as foraging habitats for a limited range of generalist species and therefore of value in maintaining the ecology of the area. However, they are common and widespread habitats that do not generally support rare species or diverse assemblages of species and are therefore of value in the immediate vicinity of the site only.

5 Conclusions and Recommendations

CONCLUSIONS

Designated sites

5.1 The site is not subject to any statutory or non-statutory nature conservation designations. There are four statutory designated sites within 2km, the closest of which is Church and Robsack Wood LNR 165m to the north. Wishing Tree SNCI is immediately adjacent to the site to the north.

Habitats

5.2 The Phase 1 habitat survey identified the following habitats at the site: low mixed deciduous woodland, poor semi-improved grassland, improved grassland, dense and scattered scrub, scattered trees, standing and running water, compost and log heaps, hedgerows, buildings and hard-standing. Adjacent to the site boundaries were areas of ASNW, dense and scattered scrub, improved grassland, scattered trees and residential properties.

5.3 The lowland mixed deciduous woodland is considered to be of up to regional importance as a habitat of principal importance. The presence of seven ancient woodland indicator species (Rose, 2006) and the sites proximity to Dogkennel Wood, (liasted on the ASNW National inventory), suggests that the on-site woodland could at one time have been part of a larger complex with Dogkennel Wood. The lowland mixed deciduous woodland is an important ecological constituent of the site and should be maintained and where possible, buffered from adjacent development.

5.4 Habitats are considered to be of value within the immediate vicinity of the site in terms of the plant communities they support, or up to a district level where they support populations of protected species as discussed below.

Species

5.5 The site has been assessed as having potential to support a number of legally protected species. The potential for a legal offence in relation to these species groups is dependent upon the use of the site, for which the plans are currently in development. Further survey work and/or mitigation is recommended for breeding birds, widespread reptiles, bats, badgers, great crested newts and hazel dormouse. Invasive non-native

plant species were recorded on the site and it is recommended that clearance of these species takes place in order to comply with legislation.

Breeding birds

5.6 Breeding birds are protected under the Wildlife and Countryside Act 1981 (as amended). This legislation protects all bird species and their nests and eggs. A number of bird species are also identified as species of principal importance under Section 41 of the Natural Environment and Rural Communities Act 2006 (as amended). Local Authorities have a duty to promote conservation of these species when making development planning decisions under Section 40 of the NERC Act.

5.7 The site was assessed as having high potential for breeding birds across a range of habitats including woodland, scattered and dense scrub, hedgerows, scattered trees, and buildings. A number of bird species of principal importance were recorded either incidentally during the Phase 1 habitat survey or their presence is likely given desk study records and suitable habitat on or adjacent to the site.

Reptiles

5.8 Widespread species of reptile (grass snake, slow-worm, common lizard and adder) are protected under the Wildlife and Countryside Act 1981 (as amended) against killing and injury.

5.9 Given the presence of suitable reptile habitat including poor semi-improved grassland, dense and scattered scrub, and compost and log piles, an assessment has been made of moderate potential for the occurrence of widespread reptiles at the site.

5.10 Further survey work is required to determine their presence, and if present, to accurately map their distribution and estimate population sizes. This information will be required to inform an appropriate mitigation strategy for the development.

Badgers

5.11 Badgers are protected under the Protection of Badgers Act 1992 (as amended). This legislation protects badgers from killing/injury and their setts from damage, destruction or disturbance whilst in current use.

5.12 Badgers were confirmed as present within the site during the survey with two setts identified in the lowland mixed deciduous woodland. Neither of the setts showed signs

of current use at the time of the survey however it is likely this site falls within the territorial boundary of at least one clan of badgers and that they will forage and commute within the site.

5.13 If badgers are liable to be affected by the proposed works, through disturbance or where a sett closure is considered unavoidable; a development licence may be necessary. Depending on the status of the sett requiring closure and the proximity of suitable alternative setts within the same territory, the creation of an artificial sett may be necessary as mitigation.

5.14 Full survey information will be required to inform the development of an appropriate mitigation strategy and to apply for a development licence from Natural England (if required). More detail about the requirements for further survey work are provided below.

5.15 It is recommended that precautions are put in place to protect badgers during site development should the proposed development proceed. These are outlined in the mitigation section below.

Great crested newts

5.16 No further surveys recommended at present. Great crested newts are protected under The Conservation of Habitats and Species Regulations 2010 (as amended) and the Wildlife and Countryside Act 1981 (as amended). Among other provisions, this legislation protects this species again killing or injury, disturbance and damage/destruction of a habitat used for sheltering/resting (see Appendix 5 for additional detail on the legal protection).

5.17 The site has been assessed as having low potential for great crested newts. There is suitable breeding and terrestrial habitat on-site and connectivity to further potential breeding habitat within 500m (a reservoir to the north). Records for this species were returned during the data search 1500m from the site. It is unlikely these populations are linked to the site due to the distance and the presence of dispersal barriers including railway tracks, roads and residential areas.

5.18 The HSI identified the on-site ponds as having below average suitability for great crested newt. Further survey for this species is not recommended due to the low likelihood of its occurrence. It is understood that the pond and surrounding woodland

habitat will be retained, which presents a low risk of any potential impact on this species.

5.19 If the woodland and pond habitat are to be impacted or if there are any delays in the development past 24 months it is recommended that a further assessment of the pond be undertaken to gain a current picture of its suitability.

5.20 The most significant potential impact of the proposed development on this species would be likely to be fragmentation and isolation of the population rather than habitat loss or modification. It is recommended that habitat linkages are retained between the woodland to off-site woodland to the north via the fringe of scattered trees and scrub on the western boundary of the site.

Bats

5.21 All species of bats are protected under The Conservation of Habitats and Species Regulations 2010 (as amended) and the Wildlife and Countryside Act 1981 (as amended). Among other provisions, this legislation protects these species again killing or injury, disturbance and damage/destruction of a habitat used for sheltering/resting (see Appendix 6 for additional detail on the legal protection).

5.22 No roosts were discovered or suspected during two emergence/re-entry surveys. Although three surveys had originally been recommended and scheduled this was downgraded once the low level of activity was recorded.

5.23 The habitat in the local area was considered to be of high quality in terms of roosting, foraging and commuting activity by bats. There are strong linkages from the site to the adjacent ASNW in Dogkennel Wood, and northwards to the rich diversity of habitats at Combe Haven SSSI. The proximity of these features increases the likelihood of bats prospecting in the area and therefore finding and using roosting features present at the site.

5.24 A number of features were identified on buildings and trees across the site that provide suitable roosting opportunities for bats. There are also features of value for commuting and foraging bats, such as the woodland and pond in the south-west of the site.

5.25 Buildings 1, 3 and 4 had features of value for bats. The features recorded were holes and cracks in brickwork (Buildings 1 and 4); loose and cracked roof tiles (Building 1);

dense ivy cover (Building 1); cracks in soffits, cladding or fascia (Buildings 1, 3 and 4); loose flashing (Buildings 1, 3 and 4); and direct access to roof voids (Buildings 1 and 4).

5.26 Taking in to account the value of the surrounding habitat and the presence of features of value for roosting bats, Building 1 was assessed as having **moderate to high** potential to support roosting bats, and Buildings 3 and 4 were assessed as having **moderate** potential to support roosting bats. Due to the nature of its construction materials, Building 2 was assessed as having **negligible** potential to support roosting bats.

5.27 Trees 1-13 had features of value for bats. The features recorded were rot holes and woodpecker holes (Trees 1, 2, 3, 4, 6 and 13); lifted bark (Tree 1); fractured or rotten limbs (Trees 1, 3 and 13); dense ivy (Trees 5, 7, 8, 9, 10 and 11); and epicormic growth (Tree 7). Trees 1-5 were assessed as having **moderate** value for roosting bats and trees 6-13 were assessed as having **low** value for roosting bats.

5.28 Taking these considerations together it is considered that as a site, The Grove provides **moderate** value for bats.

5.29 A low level of bat activity was recorded during dusk emergence and dawn re-entry surveys carried out at The Grove from two species. The majority of this activity was recorded along the woodland edge to the north of the site, with both foraging and commuting activity observed.

5.30 Both common and soprano pipistrelles typically emerge from their roosts around 20 minutes after sunset, although they can be recorded earlier. The time of the first pipistrelle pass during the dusk emergence survey indicates that there is a roost in close proximity to the site. A number of trees with features of value for bats are present at The Grove along with a large resource of woodland habitat both on-site and immediately to the north, all of which will provide ample roosting opportunities for both common and soprano pipistrelle.

5.31 Although no roost was found or suspected during the surveys the potential for bats to roost within buildings at The Grove does remain. When taking in to account the results of the dusk emergence and dawn re-entry survey it is considered that the risk of a roost being found at the present time is **low**. There is the potential for a roost to establish at some point in the future and a precautionary approach to demolition is recommended.

Hazel dormouse

5.32 The hazel dormouse is protected under The Conservation of Habitats and Species Regulations 2010 (as amended) and the Wildlife and Countryside Act 1981 (as amended). Among other provisions, this legislation protects this species again killing or injury, disturbance and damage/destruction of a habitat used for sheltering/resting (see Appendix 5 for additional detail on the legal protection).

5.33 Woodland and scrub habitats on-site and immediately adjacent have been assessed as having moderate potential for this species. The assessment was made on the basis of the quality of the habitat present in terms of its structural diversity, range of plant species, the level of connectivity and the geographical distribution of this species. The on-site woodland is linked to off-site woodland via a scattered tree and scrub strip in the west of the site, with a small 10m open area of poor semi-improved grassland.

5.34 The potential for impacting this species will depend on the extent of the impact of development upon the woodland and the likelihood that the on-site woodland will become isolated from the off-site woodland habitat to the north. If the project design is likely to cause direct (loss of habitat) or indirect (lighting, increase in recreational pressure) impacts to the woodland area then further survey work will be required to determine the presence of hazel dormouse, and if present to accurately map their distribution and design appropriate mitigation.

5.35 Should any indications of additional protected species be confirmed or suspected the advice of a suitably qualified and experienced ecologist should be sought. Should work be underway at this point, it should cease immediately until ecological advice has been obtained.

Invasive non-native species

5.36 Two invasive non-native plant species were recorded on-site; rhododendron and Japanese knotweed both listed on Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) – making it an offence to plant them or otherwise cause them to grow in the wild. In addition, three species listed on the Sussex Invasive Alien Species Register were recorded at the site; winter heliotrope, holm oak and cherry laurel. Development of the site has the potential to cause these species to spread and as such their eradication from the site is recommended.

FURTHER SURVEYS

Reptiles

5.37 The site was assessed as having a moderate potential to support widespread reptile species. In particular the western area of the site where a number of compost, log and woodchip piles, and grassland banks are present, along with fringing scrub. It is recommended that further surveys be undertaken using artificial refugia during the active season for reptiles (March to October) and preferentially during April, May and/or September. To comply with best practice, surveys need to be undertaken at suitable times of the day, in suitable weather conditions, and at least seven survey visits are required. These cannot be undertaken on consecutive days.

Badgers

5.38 Two badger setts were identified on-site during the survey, although neither was displaying signs of being in current use at the time of the survey. It is recommended that a pre-construction badger survey be undertaken prior to the start of works to check the current status of the two setts and inspect for any additional signs of badger activity at the site.

Bats

5.39 Trees assessed as having moderate value for bats will require further assessment before any felling or pruning works take place. This can be through climbed inspections or dawn re-entry survey immediately prior to works. Climbed inspections will involve the use of an endoscope and will need to be undertaken by a licensed bat ecologist or by an arborist under the direct supervision of a licensed bat ecologist. Dawn re-entry surveys will be carried out as outlined above.

5.40 Trees assessed as having low value for bats may be felled taking reasonable avoidance measures. This will involve an inspection of accessible features by a licensed bat ecologist with an endoscope, prior to the adoption of a soft felling technique as detailed below.

5.41 Felling should be carried out during either March/April or late August to October; giving regard to the potential presence of breeding birds (see 4.17) and a soft felling technique should be adopted. This involves cutting the timber in sections and carefully lowering each section to the ground. Cuts should be avoided within 50cm of a potential roost feature. If any bats or a suspected roost is encountered during the works, then works must cease immediately and the ecologist will advise on appropriate action. If this occurs when the ecologist is not on site, then ecological advice must be sought immediately.

Hazel dormouse

5.42 If there will be any disturbance of woody habitats on site it is recommended that a survey for hazel dormouse should be undertaken using nest tubes between April and October. Surveys need to be undertaken at suitable times of the day and in suitable weather conditions, with tubes left *in situ* according to the index of probability provided by Bright *et al.* (2006).

MITIGATION, COMPENSATION AND ENHANCMENT

Breeding birds

5.43 A number of habitats at the site, including scattered trees, dense scrub and scattered scrub has the potential to support breeding birds. Any removal of this vegetation should be carried out outside of the main bird nesting season, which is March to August inclusive.

5.44 It was noted during the survey that one species of principal importance for biodiversity (dunnock) was using habitat on-site. It is recommended that the loss of bird breeding habitat be minimised as far as possible and new planting of appropriate native species of a local provenance should be provided to mitigate for any loss.

5.45 New habitat should be provided as early as possible in order to allow its development and maturity to a point that it can be utilised by breeding birds. There may be opportunities to install artificial bird boxes on buildings or in wooded habitats. Where boxes are used this should include a combination of models tailored to the species recorded on site and suitable for colonial, semi-colonial and territorial species.

Badgers

5.46 It is recommended that precautions are taken during construction to prevent accidental harm to badgers commuting through or foraging within the site, should the proposed development proceed. These include ensuring that where possible chemicals are not stored on-site, and ensuring that any trenches left uncovered overnight have a means of escape; such as a wooden ramp, should a badger (or other animal) find its way in.

Bats

5.47 The demolition contractors should be alerted to the fact that bat surveys have been carried out and that bats are present in the local area. If a bat is found during demolition works, all work must cease immediately. Further bat emergence or re-entry surveys may

then be required before any further demolition can take place. These would be necessary to gain adequate information on the bat species present, the roost type and the number of bats using the roost to inform an application to Natural England for a European Protected Species Mitigation licence, and appropriate mitigation measures.

5.48 While different species of bat react differently to night time lighting, research has found that bats overall are sensitive to artificial lighting. Excessive and/or poorly directed lighting may delay bats in emerging from their roosts; shortening the time available for foraging, as well as causing bats to move away from suitable foraging grounds, movement corridors or roosting sites, to alternative dark areas (Jones, 2000).

5.49 It is evident from the dusk emergence and dawn re-entry surveys that the woodland edge to the north of the site, and the main driveway and its associated woody habitats are an important focus of bat activity at the site. It is therefore considered that these areas would be particularly sensitive to changes in lighting at the site, which would impact bats along with many other species.

5.50 To minimise indirect impacts from lighting associated with the proposed works it is recommended that night time light is only directed where completely necessary. Lighting should not illuminate any trees and hedgerows on-site, or suspected or confirmed bat roosting sites. Lighting should only be used for the period of time for which it is required (Jones, 2000). This can be achieved by following accepted best practice (Fure, 2006; Institute of Lighting Engineers, 2009; Bat Conservation Trust, 2011):

- The level of artificial lighting including flood lighting should be kept to an absolute minimum;
- Where this does not conflict with health and safety and/or security requirements, the site should be kept dark during peak bat activity periods (0 to 1.5 hours after sunset and 1.5 hours before sunrise);
- Lighting required for security or safety reasons should use a lamp of no greater than 2000 lumens (150 Watts) and should comprise sensor-activated lamps;
- LED or low pressure sodium lights are a preferred option to high pressure sodium or mercury lamps;
- Mercury lamps should be fitted with ultra violet filters and narrow spectrum bulbs should be used to minimise the ultra violet light that is emitted;

- Lighting should be directed to where it is needed to minimise light spillage. This can be achieved by limiting the height of the lighting columns and by using as steep a downward angle as possible and/or a shield/hood/cowl/louvre that directs the light below the horizontal plane and restricts the lit area;
- Artificial lighting should not directly illuminate any confirmed or potential bat roosting features or habitats of value to commuting/foraging bats. Similarly, any newly planted linear features or compensatory bat roosting features should not be directly lit; and
- Lighting design computer programs can be used to predict the potential impacts of light spillage.

5.51 There are opportunities to extend and strengthen features such as the commuting routes provided by tree lines through the planting of native trees appropriate to the area, to provide enhancements at the site.

5.52 The site contains suitable habitat for breeding birds including scattered trees and tree lines. To comply with legislation that protects birds, their nests, and eggs; it is recommended that any clearance of scrub, trees or hedgerows be undertaken between September and February including; outside of the bird nesting season.

Species of Principal Importance

5.53 A number of species that are listed as species of principal importance for biodiversity were recorded either incidentally during the Phase 1 habitat survey or their presence is likely given desk study records in suitable habitat close to the three sites. Local Authorities have a duty to promote conservation of these species when making development planning decisions under Section 40 of the NERC Act.

5.54 Mixed deciduous woodland, scrub and poor semi-improved grassland habitat have provide potential habitat for species including invertebrates, amphibians and birds. These habitats should be retained as far as possible and any opportunities to enhance them be taken.

5.55 Opportunities should be sought during the design of landscaping at the site to retain connections of natural habitat through the site and for any new planting to be native species of local provenance that will have a value as forage and cover for species using the site.

Invasive non-native species

5.56 It is recommended that appropriate measures be put in place following approved codes of control and disposal to clear the five invasive plant species identified on-site, in order to prevent their further spread. Cleared areas should be replanted with native species of a local provenance or allowed to regenerate naturally.

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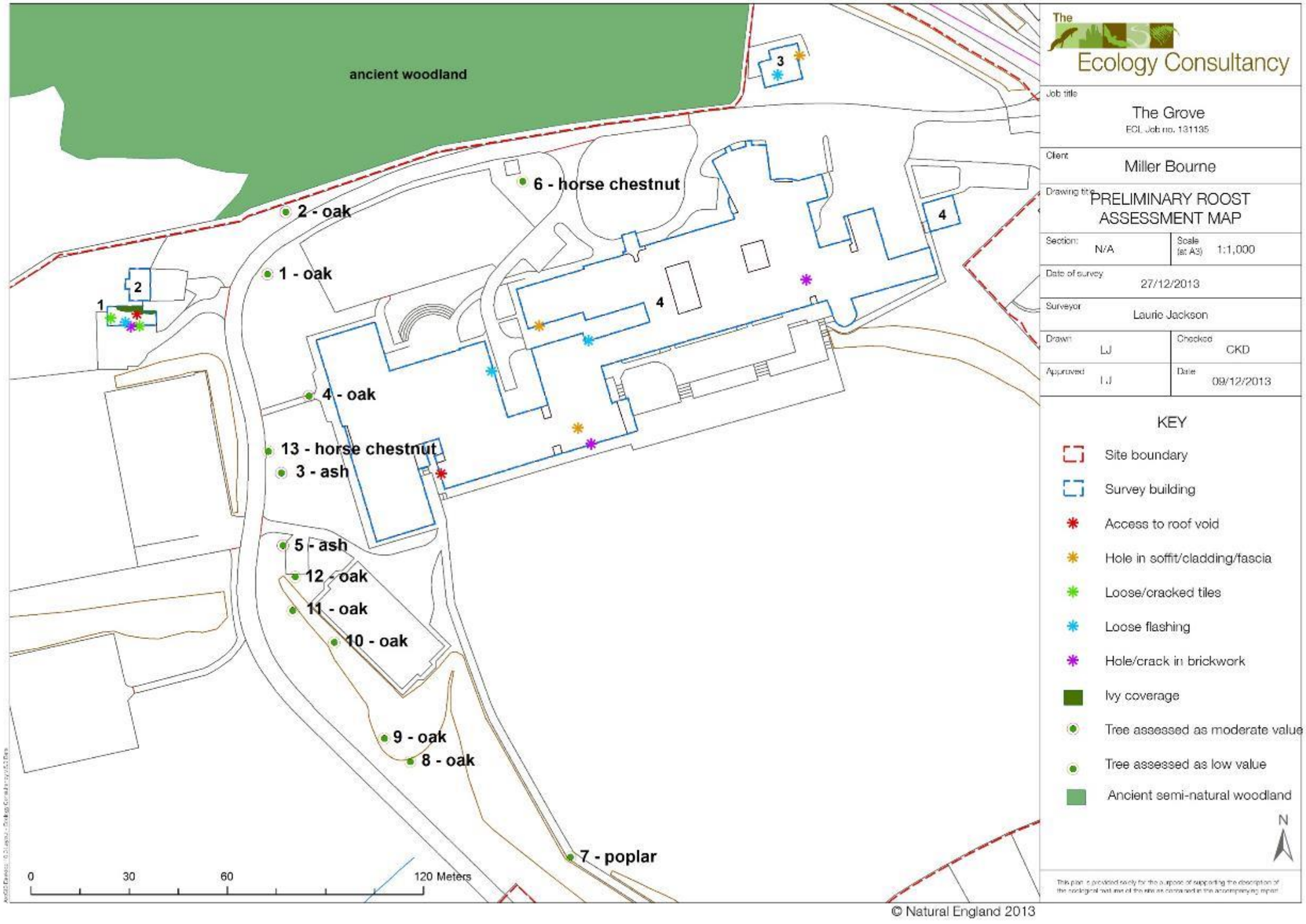
Appendix 1: Survey Maps

Map 1: Building and tree inspection map



Map 2: Preliminary ecological appraisal map

Appendix 2: Photographs

Photograph 1
Lowland mixed-deciduous woodland in the south-west of the site.

Photograph 2
Area of patchier understory in the lowland mixed-deciduous woodland.

Photograph 3
Tree planting on western edge of woodland.

Photograph 4
Access track to The Grove and area of rhododendron in the west section of woodland.

Photograph 5
Improved grassland in the south-east of the site.

Photograph 6
Poor semi-improve grassland in the north-west of the site.

Photograph 7
Poor semi-improved grassland with more sparse vegetation.

Photograph 8
Pond in south-west of site.

Photograph 9
Brook flowing to pond in south-west of site.

Photograph 10
Badger sett 1.

Photograph 11
Example of debris in entrance hole of badger sett 1.

Photograph 12
One of three patches of the invasive non-native plant Japanese knowtweed.

Photograph 13
View of the Stable Block, looking northwest – Dog Kennel Wood ancient semi-natural woodland is visible in the background.

Photograph 14
North elevation of the Stable Block showing the ivy coverage of the roof and walls.

Photograph 15
Example of features such as cracked ridge tiles and roof tiles on the Stable Block that offer potential for bat roosting.

Photograph 16
View of the eastern elevation of the Stable Block showing direct access in to the roof void through a hole in the roof.

Photograph 17
View of the storage shed looking east.

Photograph 18
View of the western elevation of the Multi Agency Services building, looking east.

Photograph 19
Eastern elevation of the Multi Agency Services building showing the hole in the fascia board.

Photograph 20
View of the main block of The Grove facing north.

Photograph 21
View of the southern elevation of the eastern section of the main block of The Grove, facing south.

Photograph 22
View of the standalone section at the eastern edge of the main block of The Grove, facing south.

Photograph 23
View of the clock tower on the eastern section of the main block of The Grove, facing north.

Photograph 24
View of the northern and western elevations of the central section of the main block of The Grove, facing southeast.

Photograph 25
View of the southern elevation of the central section of the main block of The Grove, facing north.

Photograph 26
Example of wooden cladding on a gable end on the southern elevation of the central section of the main block of The Grove.

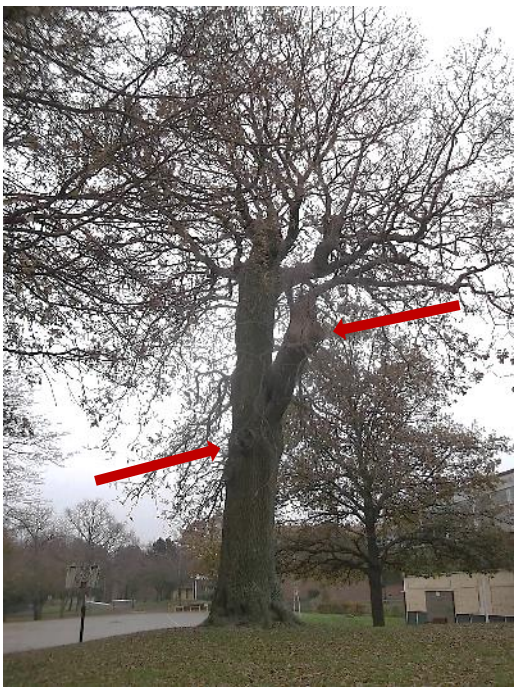
Photograph 27
Direct access in to the roof void above the library through gaps in the gable end.

Photograph 28
Western elevation of the western section of the main block of The Grove.

Photograph 29
Brick chimney on the western section of the main block of The Grove that had loose flashing on its eastern elevation.

Photograph 30

Tree 1 -mature pedunculate oak assessed as having moderate value to bats.



Photograph 31

Tree 2 - mature pedunculate oak assessed as having moderate value to bats.

Photograph 32
Tree 3 – semi-mature ash assessed as having moderate value to bats.

Photograph 33
Tree 4 - mature pedunculate oak assessed as having moderate value to bats.

Photograph 34
Tree 5 – mature ash assessed as having moderate value to bats.

Photograph 35
Tree 6 – semi-mature horse chestnut tree assessed as having low value to bats.

Photograph 36
Tree 7 – semi-mature poplar tree assessed as having low value to bats.

Photograph 37
Trees 8-11 – one of a group of four semi-mature oak trees assessed as having low value to bats.

Photograph 38
Tree 12 – a mature oak assessed as having low value to bats.

Photograph 39
Tree 13 – a semi-mature horse chestnut assessed as having low value to bats.

Appendix 3: Summary of data search for bats

Table 5: Data search results – 21 November 2013

Date	Location	Species	Comments
09/03/1905	Hollington	Bat species Chiroptera spp.	Present
03/05/1905	Church Road, St Leonards	Brown long-eared bat *Plecotus auritus*	Present
15/06/1985	Churchwood Way, St Leonards	Bat species Chiroptera spp.	Present
29/09/1988	King Edward Avenue, Hastings	Bat species Chiroptera spp.	1 juvenile
18/11/1988	Old Church Road, St Leonards	Bat species Chiroptera spp.	
21/08/1990	Marline Valley	Serotine *Eptesicus serotinus*	Present
21/08/1990	Marline Valley	Noctule *Nyctalus noctula*	Present
21/08/1990	Marline Valley	Pipistrelle bat species *Pipistrellus* spp.	Present
21/08/1990	Marline Valley	Brown long-eared bat *Plecotus auritus*	Present
20/02/1992	Churchwood Way, St Leonards	Noctule *Nyctalus noctula*	44 present
27/06/1995	Marline Valley	Noctule *Nyctalus noctula*	Present
27/06/1995	Marline Valley	Pipistrelle bat species *Pipistrellus* spp.	Present
11/07/1995	Marline Valley	Serotine *Eptesicus serotinus*	Present
11/07/1995	Marline Valley	Noctule *Nyctalus noctula*	Present
11/07/1995	Marline Valley	Pipistrelle bat species *Pipistrellus* spp.	Present
11/07/1995	Marline Valley	Brown long-eared bat *Plecotus auritus*	Present
30/11/1996	The Green, St Leonards	Pipistrelle bat species *Pipistrellus* spp.	1 hibernating
28/09/1997	Wadhurst Close, St Leonards	Pipistrelle bat species *Pipistrellus* spp.	2 present
27/06/1999	Redswood Road, St Leonards	Pipistrelle bat species *Pipistrellus* spp.	1 present
27/07/2003	Hastings	Bat species Chiroptera spp.	Present
01/09/2003	St Leonards	Nathusius' pipistrelle *Pipistrellus nathusii*	1 present
01/09/2003	St Leonards	Pipistrelle bat species *Pipistrellus* spp.	1 present
24/01/2004	St Leonards	Whiskered bat *Myotis mystacinus*	1 male

Date	Location	Species	Comments
19/05/2004	Decoy Farm, Crowhurst	Daubenton's bat *Myotis daubentonii*	3 present
01/01/2006	Sedlescombe Road South, St Leonards	Bat species Chiroptera spp.	1 in flight
03/07/2006	Pinewood Way, St Leonards	Pipistrelle bat species *Pipistrellus* spp.	20+ present
11/09/2006	Cornfield Terrace, St Leonards	Bat species Chiroptera spp.	
22/09/2006	St Leonards	Nathusius' pipistrelle *Pipistrellus nathusii*	1 adult male
19/10/2006	Amherst Rod, Hastings	Bat species Chiroptera spp.	
20/06/2007	The suttons, St Leonards	Pipistrelle bat species *Pipistrellus* spp.	36 present
11/09/2007	Sedlescombe Road South, St Leonards	Bat species Chiroptera spp.	2 present
30/05/2010	Archery Road	Pipistrelle bat species *Pipistrellus* spp.	1 present
07/10/2010	St Matthew's Gardens, St Leonards	Natterer's bat *Myotis nattereri*	1 juvenile male

Appendix 4: Plant Species List

Plant Species List for The Grove, St Leonards compiled from the field survey carried out on 20 March 2014.

Scientific nomenclature follows Stace (2010) for vascular plant species and Blockeel & Long (1998) for bryophyte species. Vascular plant common names follow the Botanical Society of the British Isles 2003 list, published on its web site, www.bsbi.org.uk. Please note that this plant species list was generated as part of a Phase 1 Habitat survey, does not constitute a full botanical survey and should be read in conjunction with the associated Phase 1 Report.

Abundance across the site as a whole was estimated using the DAFOR scale as follows:

D = dominant, A = abundant, F = frequent, O = occasional, R = rare, L = locally c=clumped, e=edge only, g=garden origin, p=planted, y = young, s=seedling or sucker, t=tree, h=hedge, w=water

SCIENTIFIC NAME	COMMON NAME	ABUNDANCE	QUALIFIER
Acer pseudoplatanus	Sycamore	F	
Achillea millefolium	Yarrow	F	
Adoxa moschatellina	Moschatel	O	
Aesculus hippocastanum	Horse chestnut	R	
Agrostis capillaris	Common bent	F	
Allium ursinum	Ramsons	O	
Alnus glutinosus	Alder	R	
Anthriscus sylvestris	Cow parsley	O	
Arum italicum	Italian Lords-and-Ladies	O	
Arum maculatum	Lords-and-Ladies	F	
Asplenium scolopendrium	Hart's-tongue fern	O	
Bellis perennis	Daisy	F	
Cardamine hirsuta	Hairy bitter-cress	R	
Carex pendula	Pendulous sedge	F	
Carex spp.	sedge species	R	
Carpinus betulus	Hornbeam	O	
Castanea sativa	Sweet chestnut	R	
Centaurea nigra	Black knapweed	O	
Cirsium palustre	Marsh thistle	R	
Corylus avellana	Hazel	O	
Crataegus monogyna	Hawthorn	F	
Dactylis glomerata	Cock's-foot	F	
Dryopteris spp.	Buckler fern species	O	
Fagus sylvatica	Beech	R	
Fallopia japonica	Japanese knotweed	O	
Fraxinus excelsior	Ash	F	
Galanthus nivalis	Snowdrop	R	

Galium aparine	Cleavers	F
Geranium molle	Dove's-foot crane's-bill	R
Glechoma hederacea	Ground-ivy	O
Hedera helix	Ivy	A
Heracleum sphondylium	Hogweed	O
Holcus lanatus	Yorkshire-fog	F
Holcus mollis	Creeping soft-grass	F
Hyacinthoides non-scripta	Bluebell	R
Ilex aquifolium	Holly	F
Lamium purpureum	Red dead-nettle	O
Ligustrum ovalifolium	Garden privet	R
Lolium perenne	Perennial rye-grass	O
Lonicera nitidia	Wilson's honeysuckle	R
Lonicera periclymenum	Honeysuckle	F
Medicago arabica	Spotted medick	R
Medicago lupulina	Black medick	R
Narcissus pseudonarcissus	Daffodil (subsp.?)	O
Petasites fragrans	Winter heliotrope	O
Picris echioides	Bristly oxtongue	O
Pilosella officinarum	Mouse-ear hawkweed	O
Pinus spp	pine species	R
Plantago lanceolata	Ribwort plantain	F
Plantago major	Greater plantain	O
Poa annua	Annual meadow-grass	F
Populus spp.	Poplar	R
Potentilla reptans	Creeping cinquefoil	O
Primula vulgaris	Primrose	R
Prunus laurocerasus	Cherry laurel	R
Prunus spinosa	Blackthorn	F
Quercus ilex	Holm oak	R
Quercus robur	Pedunculate oak	O
Ranunculus ficaria	Lesser celandine	F
Ranunculus repens	Creeping buttercup	R
Rhododendron ponticum	Rhododendron	O
Rubus fruticosus agg.	Bramble	F
Rumex spp.	Dock	F
Ruscus aculeatus	Butcher's-broom	R
Sambucus nigra	Elder	O
Senecio jacobaea	Common ragwort	O
Smyrnium olusatrum	Alexanders	R
Stellaria media	Common chickweed	R

Taraxacum oficinale agg.	Dandelion	O
Trifolium pratense	Red clover	R
Ulex europaeus	Common gorse	R
Urtica dioica	Common nettle	O
Veronica chamaedrys	Germander speedwell	R
Veronica persica	Common field-speedwell	O
Vicia sativa	Common vetch	R
Vicia spp	vetch species	R

Appendix 5: Incidental Species Records

Incidental Species List for The Grove, St Leonards compiled from the field survey carried out on 20 March 2014.

This incidental species list was generated during a Phase 1 Survey; it does not constitute a full survey.

Scientific Name	Common Name	Qualifier
Aegithalos caudatus	Long-tailed tit	
Aglais urticae	Small tortoiseshell	
Columba palumbus	Wood pigeon	
Corvus corone	Carrion crow	
Corvus monedula	Jackdaw	
Cyanistes caeruleus	Blue tit	
Erithacus rubecula	Robin	
Garrulus glandarius	Jay	
Gonepteryx rhamni	Brimstone	
Larus spp.	Gulls	
Meles meles	Badger	badger setts
Oryctolagus cuniculus	European rabbit	
Parus major	Great tit	
Phylloscopus collybita	Chiffchaff	
Pica pica	Magpie	
Picus viridis	Green woodpecker	
Prunella modularis	Dunnock	
Sitta europaea	Nuthatch	

Talpa europaea	European mole	mole hills
Troglodytes troglodytes	Wren	
Turdus merula	Blackbird	

Appendix 6: Legislation and Policy

Important Notice: This section contains details of legislation and planning policy applicable in Britain only (i.e. not including the Isle of Man, Northern Ireland, the Republic of Ireland or the Channel Islands) and is provided for general guidance only. While every effort has been made to ensure accuracy, this section should not be relied upon as a definitive statement of the law.

A NATIONAL LEGISLATION AFFORDED TO SPECIES

The objective of the EC Habitats Directive[8] is to conserve the various species of plant and animal which are considered rare across Europe. The Directive is transposed into UK law by The Conservation of Habitats and Species Regulations 2010 (as amended) (formerly The Conservation (Natural Habitats, &c.) Regulations 1994 (as amended) and The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended).

The Wildlife and Countryside Act 1981 (as amended) is a key piece of national legislation which implements the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and implements the species protection obligations of Council Directive 2009/147/EC (formerly 79/409/EEC) on the Conservation of Wild Birds (EC Birds Directive) in Great Britain.

Since the passing of the Wildlife & Countryside Act 1981, various amendments have been made, details of which can be found on www.opsi.gov.uk. Key amendments have been made through the Countryside and Rights of Way (CRoW) Act (2000) and Nature Conservation (Scotland) Act 2004.

Other legislative Acts affording protection to wildlife and their habitats include:

- Deer Act 1991
- Countryside and Rights of Way (CRoW) Act 2000
- Natural Environment & Rural Communities (NERC) Act 2006
- Protection of Badgers Act 1992
- Wild Mammals (Protection) Act 1996

Species and species groups that are protected or otherwise regulated under the aforementioned domestic and European legislation, and that are most likely to be affected by development activities, include herpetofauna (amphibians and reptiles), badger, bats, birds, dormouse, invasive plant species, otter, plants, red squirrel, water vole and white clawed crayfish.

Explanatory notes relating to species protected under The Conservation of Habitats and Species Regulations 2010 (as amended) (which includes smooth snake, sand lizard, great crested newt and natterjack toad), all bat species, otter, dormouse and some plant species) are given below. **These should be read in conjunction with the relevant species sections that follow.**

- In the Directive, the term 'deliberate' is interpreted as being somewhat wider than intentional and may be thought of as including an element of recklessness.

[8] Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora

- The Conservation of Habitats and Species Regulations 2010 (as amended) does not define the act of 'migration' and therefore, as a precaution, it is recommended that short distance movement of animals for e.g. foraging, breeding or dispersal purposes are also considered.
- In order to obtain a European Protected Species Mitigation (EPSM) licence, the application must demonstrate that it meets all of the following three 'tests': i) the action(s) are necessary for the purpose of preserving public health or safety or other imperative reasons of overriding public interest including those of a social or economic nature and beneficial consequence of primary importance for the environment; ii) that there is no satisfactory alternative and iii) that the action authorised will not be detrimental to the maintenance of the species concerned at a favourable conservation status in their natural range.

Herpetofauna (Amphibians and Reptiles)

The sand lizard *Lacerta agilis*, smooth snake *Coronella austriaca*, natterjack toad *Epidalea calamita* and great crested newt *Triturus cristatus* receive full protection under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2. The pool frog *Pelophylax lessonae* is also afforded full protection under the same legislation. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of species listed on Schedule 2
- Deliberate disturbance of any Schedule 2 species as:

  a) to impair their ability:

  (i) to survive, breed, or reproduce, or to rear or nurture young;

  (ii) in the case of animals of a hibernating or migratory species, to hibernate or migrate

  b) to affect significantly the local distribution or abundance of the species
- Deliberate taking or destroying of the eggs of a Schedule 2 species
- Damage or destruction of a breeding site or resting place
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

With the exception of the pool frog, these species are also currently listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

Other native species of herpetofauna are protected solely under Schedule 5 of the Wildlife & Countryside Act 1981 (as amended). Species such as the adder *Vipera berus*, grass snake *Natrix natrix*, common lizard *Zootoca vivipara* and slow-worm *Anguis fragilis* are listed in respect to Section 9(1) & (5). For these species, it is prohibited to:

- Intentionally (or recklessly in Scotland) kill or injure these species
- Sell, offer or expose for sale, possess or transport for purpose of sale these species, or any part thereof.

Common frog *Rana temporaria*, common toad *Bufo bufo*, smooth newt *Lissotriton vulgaris* and palmate newt *L. helveticus* are listed in respect to Section 9(5) only which affords them

protection against sale, offering or exposing for sale, possession or transport for the purpose of sale.

How is the legislation pertaining to herpetofauna liable to affect development works?

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect the breeding sites or resting places of those amphibian and reptile species protected under The Conservation Habitats and Species Regulations 2010 (as amended). A licence will also be required for operations liable to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licences are to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Although not licensable, appropriate mitigation measures may also be required to prevent the intentional killing or injury of adder, grass snake, common lizard and slow worm, thus avoiding contravention of the Wildlife and Countryside Act 1981 (as amended).

Badger

Badgers *Meles meles* receive protection under The Protection of Badgers Act 1992 which consolidates the previous Badger Acts of 1973 and 1991. The Act makes it an offence to:

- Wilfully kill, injure, take, or attempt to kill, injure or take a badger
- Cruelly ill-treat a badger, including use of tongs and digging
- Possess or control a dead badger or any part thereof
- Intentionally or recklessly damage, destroy or obstruct access to a badger sett9 or any part thereof
- Intentionally or recklessly disturb10 a badger when it is occupying a badger sett
- Intentionally or recklessly cause a dog to enter a badger sett
- Sell or offers for sale, possesses or has under his control, a live badger

How is the legislation pertaining to badgers liable to affect development works?

A Development Licence[11] will be required from the relevant countryside agency (e.g. Natural England) for any development works liable to affect an active badger sett, or to disturb badgers whilst in the sett. Depending on the nature of the works and the specifics of the sett and its environs, badgers could be disturbed by work near the sett even if there is no direct interference or damage to the sett itself. The countryside agencies have issued guidelines on what constitutes a licensable activity. N.B. there is no provision in law for the capture of

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9 A badger sett is defined in the legislation as *"any structure or place which displays signs indicating current use by a badger"*. This includes seasonally used setts. Natural England (2009) have issued guidance on what is likely to constitute current use of a badger sett: www.naturalengland.org.uk/Images/WMLG17_tcm6-11815.pdf

10 For guidance on what constitutes disturbance and other licensing queries, see Natural England (2007) Badgers & Development: A Guide to Best Practice and Licensing. www.naturalengland.org.uk/Images/badgers-dev-guidance_tcm6-4057.pdf, Natural England (2009) Interpretation of 'Disturbance' in relation to badgers occupying a sett www.naturalengland.org.uk/Images/WMLG16_tcm6-11814.pdf, Scottish Natural Heritage (2002) Badgers & Development. www.snh.org.uk/publications/online/wildlife/badgersanddevelopment/default.asp and Countryside Council for Wales (undated) Badgers: A Guide for Developers. www.ccw.gov.uk.

11 Natural England will only consider issuing a licence where detailed planning permission (if applicable to operation) has already been granted

badgers for development purposes and therefore it is not possible to obtain a licence to translocate badgers from one area to another.

Bats

All species of bat are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. all bats)
- Deliberate disturbance of bat species as:

  a) to impair their ability:

  (i) to survive, breed, or reproduce, or to rear or nurture young;

  (ii) to hibernate or migrate[3]

  b) to affect significantly the local distribution or abundance of the species
- Damage or destruction of a breeding site or resting place
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

Bats are also currently protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

How is the legislation pertaining to bats liable to affect development works?

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect a bat roost or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Though there is no case law to date, the legislation may also be interpreted such that, in certain circumstances, important foraging areas and/or commuting routes can be regarded as being afforded *de facto* protection, for example, where it can be proven that the continued usage of such areas is crucial to maintaining the integrity and long-term viability of a bat roost[12].

Dormouse

Dormice *Muscardinus avellanarius* are fully protected under The Conservation of Habitats and Species Regulations 2010 (as amended) through their inclusion on Schedule 2. Regulation 41 prohibits:

- Deliberate killing, injuring or capturing of Schedule 2 species (e.g. dormice)
- Deliberate disturbance of dormice as:

  a) to impair their ability:

[12] Garland & Markham (2008) Is important bat foraging and commuting habitat legally protected? Mammal News, No. **150**. The Mammal Society, Southampton.

(i) to survive, breed, or reproduce, or to rear or nurture young;

(ii) to hibernate or migrate

b) to affect significantly the local distribution or abundance of the species

- Damage or destruction of a breeding site or resting place
- Keeping, transporting, selling, exchanging or offering for sale whether live or dead or of any part thereof.

Dormice are also currently protected under the Wildlife and Countryside Act 1981 (as amended) through their inclusion on Schedule 5. Under this Act, they are additionally protected from:

- Intentional or reckless disturbance (at any level)
- Intentional or reckless obstruction of access to any place of shelter or protection
- Selling, offering or exposing for sale, possession or transporting for purpose of sale.

How is the legislation pertaining to dormice liable to affect development works?

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect dormouse breeding or resting places (N.B. this is usually taken to mean dormouse 'habitat') or for operations likely to result in a level of disturbance which might impair their ability to undertake those activities mentioned above (e.g. survive, breed, rear young and hibernate). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Birds

With certain exceptions, all birds, their nests and eggs are protected under Sections 1-8 of the Wildlife and Countryside Act 1981 (as amended). Among other things, this makes it an offence to:

- Intentionally (or recklessly in Scotland) kill, injure or take any wild bird
- Intentionally (or recklessly in Scotland) take, damage or destroy (or, in Scotland, otherwise interfere with) the nest of any wild bird while it is in use or being built
- Intentionally take or destroy an egg of any wild bird
- Sell, offer or expose for sale, have in his possession or transport for the purpose of sale any wild bird (dead or alive) or bird egg or part thereof.
- In Scotland only, intentionally or recklessly obstruct or prevent any wild bird from using its nest

Certain species of bird, for example the barn owl, black redstart, hobby, bittern and kingfisher receive additional special protection under Schedule 1 of the Act and Annex 1 of the European Community Directive on the Conservation of Wild Birds (2009/147/EC). This affords them protection against:

- Intentional or reckless disturbance while it is building a nest or is in, on or near a nest containing eggs or young
- Intentional or reckless disturbance of dependent young of such a bird
- In Scotland only, intentional or reckless disturbance whilst lekking
- In Scotland only, intentional or reckless harassment

How is the legislation pertaining to birds liable to affect development works?

To avoid contravention of the Wildlife and Countryside Act 1981 (as amended), works should be planned to avoid the possibility of killing or injuring any wild bird, or damaging or destroying

their nests. The most effective way to reduce the likelihood of nest destruction in particular is to undertake work outside the main bird nesting season which typically runs from March to August[13]. Where this is not feasible, it will be necessary to have any areas of suitable habitat thoroughly checked for nests prior to vegetation clearance.

Those species of bird listed on Schedule 1 are additionally protected against disturbance during the nesting season. Thus, it will be necessary to ensure that no potentially disturbing works are undertaken in the vicinity of the nest. The most effective way to avoid disturbance is to postpone works until the young have fledged. If this is not feasible, it may be possible to maintain an appropriate buffer zone or standoff around the nest.

Wild Mammals (Protection) Act 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to:

- Mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

To avoid possible contravention, due care and attention should be taken when carrying out works (for example operations near burrows or nests) with the potential to affect any wild mammal in this way, regardless of whether they are legally protected through other conservation legislation or not.

Plants

With certain exceptions, all wild plants are protected under the Wildlife and Countryside Act 1981 (as amended). This makes it an offence for an 'unauthorised' person to intentionally (or recklessly in Scotland) uproot wild plants. An authorised person can be the owner of the land on which the action is taken, or anybody authorised by them.

Certain rare species of plant, for example some species of orchid, are also fully protected under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended). This prohibits *any* person:

- Intentionally (or recklessly in Scotland) picking, uprooting or destruction of any wild Schedule 8 species (or seed or spore attached to any such wild plant in Scotland only)
- Selling, offering or exposing for sale, or possessing or transporting for the purpose of sale, any wild live or dead Schedule 8 plant species or part thereof

In addition to the UK legislation outlined above, several plant species are fully protected under Schedule 5 of The Conservation of Habitats and Species Regulations 2010 (as amended). These are species of European importance. Regulation 45 makes it an offence to:

- Deliberately pick, collect, cut, uproot or destroy a wild Schedule 5 species
- Be in possession of, or control, transport, sell or exchange, or offer for sale or exchange any wild live or dead Schedule 5 species or anything derived from such a plant.

[13] It should be noted that this is the main breeding period. Breeding activity may occur outside this period (depending on the particular species and geographical location of the site) and thus due care and attention should be given when undertaking potentially disturbing works at any time of year.

How is the legislation pertaining to protected plants liable to affect development works?

A European Protected Species Mitigation (EPSM) Licence issued by the relevant countryside agency (e.g. Natural England) will be required for works liable to affect species of plant listed under The Conservation of Habitat and Species Regulations 2010 (as amended). The licence is to allow derogation from the relevant legislation but also to enable appropriate mitigation measures to be put in place and their efficacy to be monitored.

Invasive Plant Species

Certain species of plant, including Japanese knotweed *Fallopia japonica,* giant hogweed *Heracleum mantegazzianum* and Himalayan balsam *Impatiens glandulifera* are listed on Part II of Schedule 9 of the Wildlife and Countryside Act 1981 (as amended) in respect to Section 14(2). Such species are generally non-natives whose establishment or spread in the wild may be detrimental to native wildlife. Inclusion on Part II of Schedule 9 therefore makes it an offence to plant or otherwise cause these species to grow in the wild.

How is the legislation pertaining to invasive plants liable to affect development works?

Although it is not an offence to have these plants on your land *per se*, it is an offence to *cause* these species to grow in the wild. Therefore, if they are present on site and development activities (for example movement of spoil, disposal of cut waste or vehicular movements) have the potential to cause the further spread of these species to new areas, it will be necessary to ensure appropriate measures are in place to prevent this happening prior to the commencement of works.

Plants: Injurious Weeds

Under the Weeds Act 1959 any land owner or occupier may be required prevent the spread of certain 'injurious weeds' such as spear thistle *Cirsium vulgare*, creeping thistle *Cirsium arvense*, curled dock *Rumex crispus*, broad-leaved dock *Rumex obtusifolius*, and common ragwort *Senecio jacobaea*. It is a criminal offence to fail to comply with a notice requiring such action to be taken. The Ragwort Control Act 2003 establishes a ragwort control code of practice as common ragwort is poisonous to horses and other livestock. This code provides best practice guidelines and is not legally binding.

B NATIONAL AND EUROPEAN LEGISLATION AFFORDED TO HABITATS

Statutory Designations: National

Nationally important areas of special scientific interest, by reason of their flora, fauna, or geological or physiographical features, are notified by the countryside agencies as statutory Sites of Special Scientific Interest (SSSIs) under the National Parks and Access to the Countryside Act 1949 and latterly the Wildlife & Countryside Act 1981 (as amended). As well as underpinning other national designations (such as National Nature Reserves which are declared by the countryside agencies under the same legislation), the system also provides statutory protection for terrestrial and coastal sites which are important within a European context (Natura 2000 network) and globally (such as Wetlands of International Importance). See subsequent sections for details of these designations. Improved provisions for the protection and management of SSSIs have been introduced by the Countryside and Rights of Way Act 2000 (in England and Wales) and the Nature Conservation (Scotland) Act 2004.

The Wildlife & Countryside Act 1981 (as amended) also provides for the making of Limestone Pavement Orders, which prohibit the disturbance and removal of limestone from such designated areas, and the designation of Marine Nature Reserves, for which byelaws must be made to protect them.

Statutory Designations: International

Special Protection Areas (SPAs), together with Special Areas of Conservation (SACs) form the Natura 2000 network. The Government is obliged to identify and classify SPAs under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds). SPAs are areas of the most important habitat for rare (listed on Annex I of the Directive) and migratory birds within the European Union. Protection afforded SPAs in terrestrial areas and territorial marine waters out to 12 nautical miles (nm) is given by The Conservation of Habitats & Species Regulations 2010 (as amended). The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SPAs in UK offshore waters (from 12-200 nm).

The Government is obliged to identify and designate SACs under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora). These are areas which have been identified as best representing the range and variety of habitats and (non-bird) species listed on Annexes I and II to the Directive within the European Union. SACs in terrestrial areas and territorial marine waters out to 12 nautical miles are protected under The Conservation of Habitats & Species Regulations 2010 (as amended). The Offshore Marine Conservation (Natural Habitats, &c.) Regulations 2007 (as amended) provide a mechanism for the designation and protection of SACs in UK offshore waters (from 12-200 nm).

Ramsar sites are designated under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and wise use, in particular recognizing wetlands as ecosystems that are globally important for biodiversity conservation. Wetlands can include areas of marsh, fen, peatland or water and may be natural or artificial, permanent or temporary. Wetlands may also incorporate riparian and coastal zones adjacent to the wetlands. Ramsar sites are underpinned through prior notification as Sites of Special Scientific Interest (SSSIs) and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CRoW) Act 2000. Policy statements have been issued by the Government in England and Wales highlighting the special status of Ramsar sites. This effectively extends the level of protection to that afforded to sites which have been designated under the EC Birds and Habitats Directives as part of the Natura 2000 network (e.g. SACs & SPAs).

Statutory Designations: Local

Under the National Parks and Access to the Countryside Act 1949 Local Nature Reserves (LNRs) may be declared by local authorities after consultation with the relevant countryside agency. LNRs are declared for sites holding special wildlife or geological interest at a local level and are managed for nature conservation, and provide opportunities for research and education and enjoyment of nature.

Non-Statutory Designations

Areas considered to be of local conservation interest may be designated by local authorities as a Wildlife Site, under a variety of names such as County Wildlife Sites (CWS), Listed Wildlife Sites (LWS), Local Nature Conservation Sites (LNCS), Sites of Biological Importance (SBIs), Sites of Importance for Nature Conservation (SINCs), or Sites of Nature Conservation Importance (SNCIs). The criteria for designation may vary between counties.

Together with the statutory designations, these are defined in local and structure plans under the Town and Country Planning system and are a material consideration when planning applications are being determined. The level of protection afforded to these sites through local planning policies and development frameworks may vary between counties.

Regionally Important Geological and Geomorphological Sites (RIGS) are the most important places for geology and geomorphology outside land holding statutory designations such as SSSIs. Locally-developed criteria are used to select these sites, according to their value for education, scientific study, historical significance or aesthetic qualities. As with local Wildlife Sites, RIGS are a material consideration when planning applications are being determined.

The Hedgerow Regulations 1997

The Hedgerow Regulations 1997 are intended to protect 'important' countryside hedgerows from destruction or damage. A hedgerow is considered important if (a) has existed for 30 years or more; and (b) satisfies at least one of the criteria listed in Part II of Schedule 1 of the Regulations.

Under the Regulations, it is against the law to remove or destroy certain hedgerows without permission from the local planning authority. Hedgerows on or adjacent to common land, village greens, SSSIs (including all terrestrial SACs, NNRs and SPAs), LNRs, land used for agriculture or forestry and land used for the keeping or breeding of horses, ponies or donkeys are covered by these regulations. Hedgerows *'within or marking the boundary of the curtilage of a dwelling-house'* are not.

C NATIONAL PLANNING POLICY

The National Planning Policy Framework replaced PPS9 and emphasises the need for sustainable development. The Framework specifies the need for protection of designated sites and priority habitats and priority species. An emphasis is also made for the need for ecological networks via preservation, restoration and re-creation. The protection and recovery of priority species – presumably those listed as UK Biodiversity Action Plan priority species – is also listed as a requirement of planning policy. In determining planning application, planning authorities should aim to conserve and enhance biodiversity by ensuring that: designated sites are protected from adverse harm; there is appropriate mitigation or compensation where significant harm cannot be avoided; opportunities to incorporate biodiversity in and around developments are encouraged; planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

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