



Preliminary Ecological Appraisal

Land to the East of Yapton Lane, Walberton, West Sussex

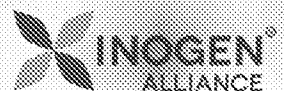
Presented to Land Allocation Limited

Issued: July 2021

Delta-Simons Project No. 20-1611.01



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Report Details

Client	Land Allocation Limited
Report Title	Preliminary Ecological Appraisal
Site Address	Land to the East of Yapton Lane, Walberton, West Sussex
Project No.	20-1611.01
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Quality Assurance

Issue No.	Status	Issue Date	Comments	Author	Technical Review	Authorised
1	Final	30 th July 2021		[REDACTED]	[REDACTED]	[REDACTED]
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Executive Summary

Scope of Works	Delta-Simons Environmental Consultants Ltd was instructed by Land Allocation Limited ('the Client') to undertake a Preliminary Ecological Appraisal (PEA) of an area of land situated off Yapton Lane, Walberton, West Sussex (the Site'). The PEA comprised a Phase 1 Habitat Survey and protected species assessment, which was completed on 5 th March 2021. The survey was undertaken to inform a planning application for the Site.
Current Site Status	The Site comprises a large arable field with continuous hedgerows and scattered broadleaved trees on three boundaries.
Proposed Development	It is understood that the proposed development will comprise a residential development of up to 75 units, with associated hard and soft landscaping with access from Yapton Lane.
Results: Habitats on-Site	The following habitats are found on the Site: ▲ Scattered broadleaved trees; ▲ Dense scrub; ▲ Improved grassland; ▲ Intact species-poor hedgerow; ▲ Arable; and ▲ Fences.
Habitats Adjoining the Site	The Site is set to the east of Walberton, bordered by Yapton Lane (B2132) to the west, with the village extending beyond. A golf course lies to the north and east, separated from the Site by a boundary hedgerow. Arable land extends to the south, with the southern boundary defined by a track/public footpath.
Potential for Protected/Notable Species	The scattered broadleaved trees, scrub and hedgerows may be utilised by a range of bird species for breeding. There were three records of Great Crested Newt (GCN) within 2 km of the Site centre in the past ten years, the closest 1.8 km away, and whilst there are ponds in the area surrounding the Site, the majority of the Site is considered sub-optimal for GCNs if present locally, with only the field margin hedgerows and tree bases offering shelter and dispersal opportunities. The Site provides limited opportunities for reptiles, though the field boundary hedgerows and tree bases could function as dispersal routes for the species. Reptiles have been recorded in the local area. One tree was assessed as having moderate Bat Roost Potential (BRP). The scattered trees and hedgerows on the boundaries provide ideal foraging and commuting habitat and also connect the Site to the wider area, and the Site was assessed as having moderate value for foraging and commuting bats. The Site did not support any evidence to indicate badgers were actively using or inhabiting it, however, the records for the species are sensitive such that it should be assumed they may be in the local area, and there is a suitable habitat for the species on-Site and in the wider area. The mature hedgerows bounding the Site offer suitable habitat for dormice as part of a wider network of hedgerow and woodland throughout the surrounding area. There was evidence that dormouse surveys have previously been, or are currently being, conducted at the Site.

	The Site has potential to support brown hare, hedgehog and polecat, with records of these species from the local area.
Requirement for Further Surveys	Given the anticipated impacts of the development, it is considered that the potential presence of the protected and notable species identified can be mitigated for through the implementation of appropriate precautionary working measures and timing of works, such that there are no requirements for further surveys at this time.
Construction and Operational Phase Recommendations and Enhancement Measures	The detailed recommendations set out within the Report are summarised below: <u>Nesting Birds</u> If clearance works are to be undertaken of the scattered trees, scrub, or hedgerows, these should be performed either before early March or after late August in order to avoid the main bird nesting season. Conflict with the development can be avoided by clearing the Site of any suitable bird nesting habitat outside of the breeding period in advance of any proposed works. If, however, Site clearance works are deemed necessary during the nesting period an experienced ecologist will be required to check the Site habitats immediately prior to works commencing to confirm that no nesting birds will be affected by the proposed works. <u>Bats</u> The detailed lighting design on Site should be functional and directional and in line with current guidance. <u>GCNs and Reptiles</u> Whilst it is not known to what extent any boundary vegetation will require removal, a precautionary approach must be put in place to ensure that, if present in the immediate area, GCNs and reptiles are not disturbed or harmed by the proposals: ✦ Any clearance of boundary vegetation must be undertaken during the active season for these species (April-October, inclusive) and under the supervision of a GCN licensed ecologist; ✦ A toolbox talk to be given to all contractors prior to the commencement of works; ✦ All building materials must be stored on pallets; and ✦ No excavations must be left open to fill with rainwater. <u>Badger & Hedgehogs</u> As is general good practice for Sites where these species may occur, it is recommended that no excavations or trenches are left uncovered overnight during the development works in order to prevent any wildlife from becoming trapped. Alternatively, ramps can be provided to enable them to climb out of trenches or excavations. <u>Hazel Dormouse</u> A precautionary method statement should be prepared and followed during the proposed clearance of identified vegetation to ensure that dormice are not disturbed or harmed during the works. This will include a tool box talk and a pre-commencement fingertip search of all suitable vegetation to be cleared by a suitably qualified ecologist; <u>Hedgehogs</u> All fencing within the development should allow access and egress for hedgehogs. This requires 13 cm² access to be left in a coordinated network to enable access and egress between suitable foraging habitats throughout the Site, and to the wider landscape. Hedgehogs require territories of up to 1 km and, as such, it is important large feeding areas are made available. Hedgehogs do not generally damage domestic gardens and this size of hole is not large enough for most household pets, or rabbits, to use. Care should also be taken during removal of scrub and hedgerows, for the presence of

	hedgehogs. If a hedgehog is found it should be carefully lifted to a safe place of refuge outside the working area. Site Enhancements A list of recommendations to enhance the biodiversity of the Site are found in Section 6.0 of this Report.
This Preliminary Ecological Appraisal Executive Summary is intended as a summary of the assessment of the Site based on information received by Delta-Simons at the time of production. This Executive Summary should be read in conjunction with the full Report.	

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1.0 Introduction

1.1 Purpose and Scope of the Survey

Delta-Simons Environmental Consultants Ltd was instructed by Land Allocation Limited ('the Client') to undertake a Preliminary Ecological Appraisal (PEA) of an area of land situated off Yapton Lane, Walberton, West Sussex (hereafter referred to as the "Site"). In addition, public land immediately surrounding the Site was surveyed, where access allowed. The survey was undertaken in order to inform a planning application for residential development at the Site.

The aims of the PEA were to:

- Identify habitat types on the Site using the standard methodology devised by the Joint Nature Conservation Committee (JNCC, 2010);
- Identify areas of potential for protected species/species of conservation concern within the Site;
- Identify areas of potential for protected species/species of conservation concern immediately outside the Site;
- Identify any invasive plant species included within Schedule 9 of the Wildlife and Countryside Act (WCA) 1981 (as amended);
- Prepare a Phase 1 Habitat Plan of the Site; and
- Propose recommendations for further surveys, where appropriate.

The Site location and the Site red line are shown in Figure 1.

1.2 Site Description

The Site is centred at Ordnance Survey (OS) grid reference SU 97808 06006, to the east of Walberton in West Sussex. The Site covers an area of approximately 7.6 hectares (ha) and comprises a large arable field with continuous hedgerows along three boundaries and scattered broadleaved trees on all four boundaries. The Site did not support standing water at the time of the survey.

The Site is set to the east of Walberton, bordered by Yapton Lane (B2132) to the west, with the village extending beyond. A golf course lies to the north and east, separated from the Site by a boundary hedgerow. Arable land extends to the south, with the southern boundary defined by a track/public footpath.

The Site layout is shown in Figure 2.

1.3 Proposed Development

It is understood that the proposed development will comprise of up to 75 residential dwellings, with associated hard and soft landscaping with access from Yapton Lane.

2.0 Legislation & Policy Summary

Specific habitats and species of relevance to the Site receive legal protection in the United Kingdom under various pieces of legislation, including:

- ▲ National Planning Policy Framework (NPPF, 2021);
- ▲ The Conservation of Habitats and Species Regulations 2017, (as amended);
- ▲ The Wildlife and Countryside Act (WCA) 1981 (as amended);
- ▲ The Countryside and Rights of Way (CROW) Act 2000;
- ▲ The Natural Environment and Rural Communities Act (NERC) 2006;
- ▲ The Hedgerow Regulations 1997; and
- ▲ The Protection of Badgers Act 1992.

Where relevant, this appraisal takes account of the legislative protection afforded to specific habitats and species. The legislation surrounding each faunal or floral species or group is provided in Appendix A and references are included in Appendix B.

3.0 Methodology

The PEA has been undertaken to the following current guidance: CIEEM (2017), Guidelines for Preliminary Ecological Appraisal; and BS 42020: 2013 Biodiversity. Code of Practice for Planning and Development.

3.1 Desk Study

Data Search

A data search was undertaken to identify statutory and non-statutory designated sites and records of protected and notable species.

In March 2021, available records of protected and notable species were collated from the local record centre, the Sussex Biodiversity Record Centre (SxBRC), along with the non-statutory designated sites within a 2 km radius of the Site centre. A search for international statutory designated sites for nature conservation within 6 km of the Site was undertaken, together with a search for national statutory designated sites for nature conservation within 2 km of the Site centre, using the Multi-Agency Geographic Information for the Countryside (MAGIC) website.

In addition, free and publicly accessible Ordnance survey maps and aerial photographs were searched for waterbodies on, or within, 500 m of the Site boundary. This information has been used to assess the Site for its potential for amphibians, the results of which are found in Section 4.3.

Review of Previous Surveys

It is understood from an abundance of bat records at the Site dating from 2019, that previous ecological surveys have been conducted at the Site, however, upon review of the Arun Planning Portal, no applications with ecological survey information relevant to the Site was found.

3.2 Survey

The habitats on the Site, were surveyed on 5th March 2021 by a Delta-Simons ecologist. Since access was not permitted to the surrounding land, it was visually assessed from the Site boundary.

The following was undertaken during the survey:

- ⌘ Habitats were classified and mapped using the standard JNCC Phase 1 habitat classification and methodology (JNCC, 2010). Dominant plant species were recorded in each different habitat. The plant species nomenclature followed that of Stace (2010);
- ⌘ Terrestrial habitats on-Site were surveyed for the presence of, or potential for the following protected or notable species:
 - ⌘ Birds: All species with special reference to key species (such as those on Schedule 1 of the WCA, 1981 (as amended), England Biodiversity Priority Species (EBP) (previously UK Biodiversity Action Plan (UKBAP) species) and Birds of Conservation Concern (BoCC) (Eaton et al., 2015);
 - ⌘ Amphibians: Great Crested Newt (GCN) *Triturus cristatus*;
 - ⌘ Reptiles: common lizard *Zootoca vivipara*, adder *Vipera berus*, slow worm *Anguis fragilis* and barred grass snake *Natrix helvetica*; and
 - ⌘ Mammals: bat (all species), badger *Meles meles* and hazel dormouse *Muscardinus avellanarius*.
- ⌘ Widespread terrestrial invasive species listed on Schedule 9 of the WCA 1981 (as amended) were recorded. These are Japanese knotweed, *Fallopia japonica* giant knotweed *Fallopia sachalinensis* hybrid knotweed, *Fallopia baldschuanica*, giant hogweed *Heracleum mantegazzianum*, and Himalayan balsam *Impatiens glandulifera*.

3.2.1 Birds

Visual and/or audible identification was made of any birds on the Site or flying over the Site during the survey period. Suitable habitat was, where possible, inspected and any evidence of old nesting activity was recorded.

3.2.2 Amphibians

The terrestrial habitats at the Site were assessed for their potential to support amphibian species and a desk search was undertaken (see Section 3.1).

3.2.3 Reptiles

Suitable habitats for reptiles were identified within areas on-Site. Since reptiles are currently hibernating, natural and artificial refugia (logs, large debris etc.) were not checked beneath for the presence of reptiles.

3.2.4 Bats

The Site was assessed for its suitability to support roosting and foraging bats (see Appendix C).

3.2.5 Badgers

The Site was inspected for signs of badger activity, including sett entrances, latrines, footprints, runs through vegetation, guard hairs caught on fences and snuffle holes, and its suitability to support this species assessed.

3.2.6 Hazel Dormouse

Any hedgerows on-Site were assessed for signs of hazel dormouse activity, and since dormouse tubes were recorded at the time of the survey, their locations were recorded and left undisturbed in accordance with the following current guidance: Dormouse Conservation Handbook (Bright *et al.* 2006).

3.2.7 Other Protected or Notable Species

Where applicable, during the survey, evidence was recorded of any other protected or notable species, including England Biodiversity Priority (EBP) species. Habitats with the potential to support additional protected or notable species were also recorded, if present, during the survey.

3.2.8 Invasive Species

The occurrence of any invasive plant species on the Site was identified in terms of species and stand size.

3.2.9 Hedgerows

An assessment of any hedgerows at the Site, which will be adversely affected by the proposed development, was undertaken using the standard hedgerow survey methodology outlined in the Hedgerow Regulations 1997. The purpose of the assessment was to ascertain whether the hedgerows are classified as 'nationally important' and, therefore, protected under the Hedgerow Regulations 1997. The assessment involves a scoring system which relies on particular features, number of woody and floral species present within the hedgerow habitat, and the age of the hedgerow.

3.2.10 Limitations to the Survey

There were no limitations to the survey in terms of access, timing, and weather conditions.

The baseline conditions described in this report were accurate at the time at which the survey was undertaken. Should at least two years pass by, and/or conditions on-Site/Site usage change prior to the commencement of works, an update survey should be undertaken.

4.0 Results

4.1 Desk Study

The pertinent information from the data search is set out below for designated sites, whilst species are discussed in the relevant species sections. Full results of the SxBRC data search are available to the Client on request.

4.1.1 Designated Sites

The results of the MAGIC data search and the SxBRC desk search indicate that there are no international statutory designated sites within 6 km of the Site. There is a single statutory designated site within 2 km of the Site centre, the South Downs National Park. Within the National Park, there are two Local Wildlife Sites (LWS) and one Site of Nature Conservation importance (SINC). Table 1, below, sets out the designated sites identified.

Table 1: National Statutory and Non-Statutory Designated sites within 2 km of the Site centre

Site Name	Designation	Distance and Direction from Site Boundary	Designation Criteria Summary
N/A	Ancient trees	70 m south	There is an ancient tree in the hedgerow bordering the Site at the southern edge, with a second tree off-Site to the south-east.
South Downs	National Park	190 m north	Covering over 1,600 square kilometres, South Downs is Britain's newest National Park. This site includes landscapes, internationally important wildlife, cultural heritage and lively market towns and villages.
Binsted Wood Complex	LWS	190 m north	Inside the National Park, the site is a complex of woodland: a mixture of ancient woodland, recent woodland, conifer plantation, species-rich pasture, and old tracks and shaws. The canopy is predominantly oak <i>Quercus robur</i> with an irregular understorey of hazel <i>Corylus avellana</i> .
Rewell Wood Complex	LWS	700 m north	Inside the National Park, this site comprises of a large ancient woodland complex. This includes a semi-natural woodland, broadleaved plantation, coniferous plantation, chalk grassland and Slindon Common gravel pit.
Slindon Common Gravel Pit	SINC	1 km north-east	This site is part of the Rewell Wood Complex. There are several rare species known to occur here including solitary bees, like the large sawfly mining bee <i>Andrena apicata</i> , and wasps like the beewolf <i>Philanthus triangulum</i> .

4.1.2 SSSI Impact Risk Zone

The Site falls within the SSSI Impact Risk Zone (IRZ) for the Fairmile Bottom SSSI, located 2.5 km north of the Site boundary. The Site also falls within the IRZ for the Arundel Park SSSI, located 3.8 km north-east of the Site boundary. As such, the Local Planning Authority (LPA) is required to consult Natural England (NE) on the likely risks from the following development proposals:

- ▲ Pipelines, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals;
- ▲ Any industrial/agricultural development that could cause air pollution (incl: industrial processes, livestock & poultry units with floorspace > 500m², slurry lagoons > 750m² & manure stores > 3500t); and
- ▲ General combustion processes >50MW energy input. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.

The criteria listed are not relevant to the development proposals, such that there will be no impacts on designated sites. SSSI IRZs are not mentioned further in this Report.

4.2 Survey

4.2.1 Habitats on Site

The Site is characterised by a large arable field with continuous hedgerows along three boundaries and scattered broadleaved trees on three boundaries.

Figure 2 shows the extent of habitat types and boundary features. Descriptions of the habitat types and dominant plant species found at the Site are provided below. Habitat descriptions are by broad habitat type, as listed in the Phase 1 Habitat Survey Manual (JNCC, 2010). Photographs of the Site survey are located in Appendix D.

Habitats recorded on Site are:

Scattered Broadleaved Trees

There were scattered broadleaved trees associated with the northern and western boundaries of the Site, the majority of which were within the hedgerow on the western boundary of the Site (Photograph 1). Species included semi-mature ash *Fraxinus excelsior*, sycamore *Acer psuedoplatanus*, and mature pedunculate oak *Quercus robur*.

Dense Scrub

A small area of dense bramble *Rubus fruticosus* agg. and garden privet *Ligustrum ovalifolium*, scrub was located in the south-western corner of the Site (Photograph 2).

Improved Grassland

The margins of the arable field were improved grassland with cocksfoot *Dactylis glomerata*, Yorkshire fog *Holcus lanatus*, cow parsley *Anthriscus sylvestris* and the ruderal broadleaved dock *Rumex obtusifolius* (Photograph 3), recorded. The margins were approximately 1 m wide, with a sward height of 10 -20 cm.

Intact Species-Poor Hedgerow

The northern, eastern, and western boundaries of the Site were defined by intact species-poor hedgerows. Hedgerow (H1, Photograph 4), defining the northern and eastern boundaries of the Site, comprised an intact species-poor hedgerow. The height of the hedgerow was 2 m with a maximum width of 2 m. Species present were blackthorn *Prunus spinosa*, hawthorn *Crataegus monogyna*, field maple *Acer campestre* and occasion dog rose *Rosa canina*. The hedgerow was young and managed Site-side with spiral guards' present.

Hedgerow (H2, Photograph 5), defined the western boundary of the Site, and comprised an intact species-poor hedgerow. The height of the hedgerow was 2 m with a maximum width of 1 m and was sparse and leggy.

Species present were blackthorn, hawthorn and hazel *Corylus avellana*. The hedgerow was managed and had an understorey consisting of lords-and-ladies *Arum maculatum*, snowdrops *Galanthus nivalis*, and daffodil *Narcissus* sp. Ash, sycamore and pedunculate oak were present as occasional semi-mature and mature single trees and groups within the hedgerow.

Arable

The Site was defined by a large arable field which was sown with a winter cereal crop at the time of the Survey (Photograph 5).

Fences

The northern and eastern boundaries of the Site had a post and rail fence contiguous with H1.

4.2.2 Habitats Immediately Surrounding the Site

The Site is set to the east of Walberton, bordered by Yapton Lane (B2132) to the west, with the village extending beyond. A golf course lies to the north and east, separated from the Site by a boundary hedgerow. Arable land extends to the south, with the southern boundary defined by a track/public footpath.

4.3 Notable and Protected Species Assessment Relevant to the Site

Birds

There were 248 records of birds listed on the Red List of the BoCC (Eaton et al., 2015) included in the data search that were from within 2 km of the Site centre in the last 10 years. Species recorded which might utilise the habitats found on-Site in combination with other habitats in the surrounding area included corn bunting *Emberiza calandra*, , cuckoo *Cuculus canorus*, Eurasian skylark *Alauda arvensis*, , grey partridge *Perdix perdix*, hawfinch *Coccothraustes coccothraustes*, house sparrow *Passer domesticus*, lapwing *Vanellus vanellus*, linnet *Linaria cannabina*, song thrush *Turdus philomelos*, starling *Sturnus vulgaris*, tree pipit *Anthus trivialis*, tree sparrow *Passer montanus*, turtle dove *Streptopelia turtur*, whinchat *Saxicola rubetra*, and yellowhammer *Emberiza citrinella*.

No birds listed on Schedule 1 of the WCA (1981), as amended, that may utilise the habitats found Site were included within the data search. There were two records of woodlark *Lullula arborea*, a bird listed as a UKBAP priority species, within 2 km of the Site centre. These were recorded in July 2019 and May 2017 in Arundel Rewell Wood.

Habitats featured on the Site suitable for nesting birds, include the boundary hedgerows and scattered trees. The arable field is still actively farmed but could offer nesting opportunities if it is left to fallow. No bird nesting activity was observed at the time of the inspection, although it was early in the season.

Bird species recorded at the time of the survey were carrion crow *Corvus corone*, blackbird *Turdus merula*, and woodpigeon *Columba palumbus*. No birds listed on Schedule 1 or those listed on the Red List of BoCC were recorded. It should be noted that this is not a comprehensive inventory of the bird species which may be present at the Site.

Great Crested Newts

There were three recent records of GCN within 2 km of the Site centre, the closest and most recent of which was 1.8 km south of the Site boundary in June 2017. The other two records were approximately 1.8 km south-west of the Site boundary, in 2012.

There are no ponds on-Site and a review of aerial photographs and OS maps revealed that there are eight ponds within 500 m of the Site that could support breeding amphibians, with the closest pond located 130 m east of the Site within Avisford Park Golf Club, across a drain, and a further two ponds located 200 m and 300 m north-east of the Site boundary, all within ideal terrestrial habitat for amphibians. The remaining five ponds were located west of the Site, across Yapton Lane, with three of the ponds located in a continuation of Avisford Park Golf Club, and two within arable fields to the south of Walberton. One pond located 470 m south-west of the Site boundary had historic records of GCN from 2005, with the B2132 road, arable fields and hedgerows

between the pond and the Site. The majority of the Site offers sub-optimal habitat for GCNs being arable, however, the field margin hedgerows and tree bases on the northern, eastern, and western boundaries may offer refuge and dispersal opportunities for GCN, if present in the local area.

Reptiles

Four species of reptiles were recorded within 2 km of the Site centre in the past ten years:

- ▲ Twenty-nine records of common lizard, the closest record was 315 m east of the Site boundary in May 2017, whilst the most recent record was 1.8 km north-west from the Site boundary in May 2018;
- ▲ Sixteen records of slow worm, the closest record was 875 m north-east of the Site boundary, in May 2016, whilst the most recent record was 1.75 km north-west from the Site boundary from June – August 2018;
- ▲ Fifteen records of barred grass snake, the closest record was 280 m west of the Site boundary, in September 2016, whilst the most recent record was 635 m west of the Site boundary from summer 2019; and
- ▲ Four records of adder were included in the data search within 2 km of the Site centre, the closest and most recent of which was 515 m east of the Site boundary, in July 2015.

The Site lacks the structural mosaic habitats required to support species of reptiles, with ideal habitat to the north and east, however, the hedgerows could offer refuge and dispersal routes for reptiles present in the local area.

Bats

The data search indicated that at least 15 species of bats have been recorded within 2 km of the Site centre in the past ten years, with subsequent records of unidentified species of bats. Several of the records were from the Site during surveys conducted in 2019, details of which are as follows:

- ▲ Twenty records of common pipistrelle *Pipistrellus pipistrellus*, between 2014 and 2020, the closest of which was on-Site during the 2019 Surveys, whilst the most recent record was 750 m south-east of the Site boundary in 2020;
- ▲ Forty-eight records of soprano pipistrelle *Pipistrellus pygmaeus*, between 2013 and 2019, the closest and most recent of which was on-Site in 2019;
- ▲ Four records of Nathusius' pipistrelle *Pipistrellus nathusii*, between 2016 and 2019, the closest and most recent of which was on-Site in 2019;
- ▲ Twenty-two records of Alcaho bat *Myotis alcathoe*, between 2016 and 2018, the closest of which was 560 m north of the Site boundary in 2016, whilst the most recent record was approximately 740 m north of the Site boundary;
- ▲ Six records of Brandt's bat *Myotis brandtii*, between 2016 and 2019, the closest and most recent of which was 380 m east of the Site boundary in 2019;
- ▲ Eleven records of whiskered bat *Myotis mystacinus*, between 2015 and 2018, the closest and most recent of which was 730 m east of the Site boundary in 2018;
- ▲ Twenty-six records of Natterer's bat *Myotis nattereri*, between 2015 and 2018, the closest of which was 560 m north of the Site boundary in 2016, whilst the most recent was 730 m east of the Site boundary in 2018;
- ▲ Nine records of Bechstein's bat *Myotis bechsteinii*, between 2016 and 2018, the closest and most recent of which was 740 m north of the Site boundary in 2018;
- ▲ Eighteen records of Daubenton's bat *Myotis daubentonii*, between 2015 and 2019, the closest and most recent of which was 380 m east of the Site boundary in 2019;
- ▲ Twenty-two records of western barbastelle *Barbastella barbastellus*, between 2013 and 2019, the closest and most recent of which was on-Site in 2019;
- ▲ Eight records of serotine bat *Eptesicus serotinus*, between 2015 and 2019, the closest and most recent of which was on-Site in 2019;

- ✎ Six records of noctule bat *Nyctalus noctula*, in 2018 and 2019, the closest and most recent of which was on-Site in 2019;
- ✎ Two records of lesser noctule *Nyctalus leisleri*, both in 2018, the closest of which was 730 m east of the Site boundary;
- ✎ Thirty-five records of brown long-eared bat *Plecotus auritus*, between 2012 and 2019, the closest and most recent of which was on-Site in 2019; and
- ✎ One record of greater horseshoe bat *Rhinolophus ferrumequinum*, which was recorded on-Site in 2019.

Twenty-nine records of bat roosts were included in the data search within 2 km of the Site centre. The closest record was 175 m west of the Site boundary, a BLE roost from February 2012. The most recent record was 575 m south-west of the Site boundary, a soprano pipistrelle bat in June 2019.

A single tree on the western boundary was assessed as having features suitable for roosting bats. The tree number relates to the accompanying Arboricultural Report (Delta Simons 20-1611.01 - BS 5837:2012 Arboricultural Survey), and the location is shown in Figure 3.

Tree 4 was a mature pedunculate oak, located in a gap within Hedgerow 2, on the western boundary of the Site. It had minor ivy coverage (Photograph 6) and a large rot hole on the main stem. The tree bounded the Site and Yapton Lane, which had no street lighting which could result in light spill on the tree. It was assessed as having **Moderate BRP**.

The hedgerows, trees, and grassland margins offer foraging and commuting opportunities for a range of bat species, and the Site is well connected to further suitable habitat in the wider area, to the north, east and south, whilst residential properties within Walberton to the west could offer further roosting and foraging habitat. The Site is not subject to excessive light spill from Yapton Lane or adjacent properties. The Site is considered to be of **Moderate** value to foraging and commuting bats.

Badgers

Records of badgers are strictly confidential in Sussex to avoid persecution of the species, such that it is not known if the species is present in the local area. The Site did not support any evidence to indicate that badgers were using or inhabiting it. There were no sett entrances, latrines, snuffle holes, mammal runs, or badger dung found within the survey area. However, the habitats found on-Site are suitable for foraging and commuting badgers, if present locally.

Hazel Dormouse

There were 184 records of hazel dormouse *Muscardinus alpestris* within 2 km of the Site centre in the last 10 years. The closest record was 564 m east of the Site boundary, in June 2019, whilst the most recent record was 590 m east of the Site boundary in October 2019. Dormouse nest tubes were present within both hedgerows on-Site, though it is unclear whether there are ongoing survey works at the Site, or if these have been left following previous survey works. The eastern hedgerow on-Site is suitable for the species, and is well connected to the wider landscape; however, the western hedgerow was deemed less suitable due to its location adjacent to Yapton Lane and due to its thin and leggy condition.

Other Protected Species

There were four records of brown hare *Lepus europaeus* within 2 km of the Site centre in the last 10 years. The closest of these records was 285 m north-east of the Site boundary in August 2017, within 140 m of two further records from August 2017. The most recent record was 1.2 km south-east of the Site boundary, in January 2019. No evidence of brown hare was recorded on-Site at the time of the Survey; however, the habitats are suitable for the species, and the Site is well connected to further habitat in the wider area.

There were two records of polecat *Mustela putorius* within 2 km of the Site centre in the last 10 years. The closest of these records was 1.2 km west of the Site boundary in August 2015. The most recent record was 1.4 km east of the Site boundary in December 2018. No evidence of the species was recorded on-Site at the time of the Survey; however, the habitats are suitable for the species, and are well connected to woodland in the wider area.

There were 15 records of West European hedgehog *Erinaceus europaeus* within 2 km of the Site centre in the last 10 years. The closest of these records is 225 m east of the Site boundary in May 2017, whilst the most recent of which was 460 m west of the Site boundary in April 2020. No evidence of hedgehogs was recorded on-Site at the time of the Survey; however, the habitats on-Site, in particular the hedgerows on the boundaries and the dense scrub, offer suitable foraging, resting and commuting opportunities for the species, and Yapton Lane does not present a major distribution barrier for the species to commute onto Site from nearby residential gardens.

Three harvest mouse *Micromys minutus* records were found within 2 km of the Site centre in the last 10 years. The closest and most recent of which was 684 m north-east of the Site boundary in November 2018. The hedgerows offer suitable habitat for the species, though the Site lacks the long, tussocky grassland that the species favour for nest building, such that they are not considered further in this Report.

Invasive Species

There are three records of Japanese knotweed included in the data search within 2 km of the Site centre from the last 10 years. The most recent and closest record was 1.4 km north-east from the Site boundary from October 2015. No widespread invasive species were recorded during the Site survey.

Hedgerows

Two hedgerows have been identified and assessed as part of the hedgerow survey. They were both assessed against the Hedgerow Regulations (1997) and they did not support the number of woody species or associated features required to meet the criteria for an Important Hedgerow.

5.0 Evaluation

Designated sites-statutory sites/non-statutory sites

The South Downs National Park is located 190 m north of the Site boundary, and includes Binsted Wood Complex LWS, Rewell Wood Complex LWS and Slindon Common Gravel Pit SINC within its borders. It is likely that without mitigation in place, the development of the Site for residential use could cause disturbance to the designated sites identified, through increased traffic from Site vehicles, dust, noise, and potential light spill, during the construction phase of works. During the operational phase of works, the creation of new residential housing in close proximity to the National Park will increase recreational pressure from increased footfall and pets accessing the area and has the potential to increase disturbance to wildlife and habitats without appropriate mitigation in place.

Habitats

Whilst the majority of the Site is arable land of low ecological value, the boundaries of the Site, consisting of hedgerows and scattered trees are of much higher ecological value. It is understood that the development will result in the loss of a portion of the western hedgerow and trees to provide access to the Site. However, any loss of hedgerow and trees should be compensated for with appropriate planting and landscaping within the development. Furthermore, the remaining hedgerows and trees should be retained wherever possible, and a new, species-rich hedgerow should be planted on the southern boundary of the Site to increase connectivity whilst also screening the development from the wider landscape. Whilst no development plans are currently available, Public Open Space (POS) should be included on-Site in order to minimise recreational pressure on the National Park to the north.

Species

The scattered broadleaved trees, scrub and hedgerows may be utilised by a range of bird species for breeding. Mitigation should be put in place to ensure that no nesting birds are disturbed as a result of vegetation clearance to facilitate the proposals. Furthermore, compensatory nesting habitat should be included through the installation of bird boxes on retained trees, and/ or on garages of the new properties, together with new tree and hedgerow planting to offer shelter and foraging opportunities as part of any future development at the Site.

There were three records of GCN within 2 km of the Site centre in the past ten years, all over 1.5 km away and given the historic record of GCN is 470 m to the south of the Site, it is considered unlikely that if the population remains, that any newts would disperse 600 m- 1 km to reach the off-Site ponds to the north and east of the Site. However, given that the boundaries offer refuge and a dispersal corridor for amphibians, a precautionary approach should be taken in regard to the potential for GCNs to occur during any clearance/ management of boundary habitats.

The Site provides limited opportunities for reptiles, though the boundaries could offer a corridor for dispersal for these species. A precautionary approach should, therefore, be taken in regard to reptiles during any clearance/ management of boundary habitats.

A single tree was assessed as having Moderate BRP, and 15 species of bats have been recorded within 2 km of the Site centre in the past ten years, including six species which were recorded on-Site during surveys conducted in 2019. If the tree with BRP is to be removed or impacted as part of the proposed development, there is potential for any bats using these features to be harmed if appropriate mitigation is not implemented. However, it is understood that this tree is to be retained. The scattered trees and hedgerows on the boundaries provide ideal foraging and commuting habitat and also connect the Site to the wider area, and the Site was assessed as having Moderate value for foraging and commuting bats. Given that the majority of these habitats are to be retained with substantial landscape buffer planting proposed at the Site, it is anticipated that the proposed development will have a low impact on bats using the boundary habitats for commuting and foraging. However, a sensitive lighting regime will be required.

The Site did not support any evidence to indicate badgers were actively using or inhabiting it, however, the records for the species are sensitive such that it should be assumed they may be in the local area, and there is a suitable habitat for the species on-Site and in the wider area. If this species does occur locally, it is a possibility

that badgers may disperse across the Site. Therefore, precautionary measures will need to be in place during the construction phase of works to ensure that they do not become trapped in any trenches or pits.

The mature hedgerows bounding the Site offer suitable habitat for dormice as part of a wider network of hedgerow and woodland throughout the surrounding area. There was evidence that dormouse surveys have previously been, or are currently being, conducted at the Site. As the majority of the hedgerows are to be retained and additional buffer planting is to be created around the periphery of the Site, it is anticipated that any impacts on dormouse, should they occur in the local area, will be low. Should any sections of the hedgerows require removal, this should be done under a precautionary approach.

The Site has potential to support brown hare, hedgehog and polecat. Whilst brown hare and polecat will disperse away from any disturbance, mitigation should be put in place to ensure that hedgehogs are not harmed by the proposals.

6.0 Recommendations

6.1 Further Survey Requirement

Given the anticipated impacts of the redevelopment, it is considered that the potential presence of the protected and notable species identified can be mitigated for through the implementation of appropriate precautionary working measures and timing of works, such that there are no requirements for further surveys at this time.

6.2 Construction and Operational Phase Protection/Enhancement Measures

6.2.1 Species Protection

Nesting Birds

- ▲ If clearance works are to be undertaken of the scattered trees, scrub or hedgerows, these should be performed either before early March or after late August in order to avoid the main bird nesting season; and
- ▲ Conflict with the development can be avoided by clearing the Site of any suitable bird nesting habitat outside of the breeding period in advance of any proposed works. If, however, Site clearance works are deemed necessary during the nesting period an experienced ecologist will be required to check the Site habitats immediately prior to works commencing to confirm that no nesting birds will be affected by the proposed works.

Bats

The detailed lighting design on Site should be functional and directional and in line with current guidance (BCT and ILP, 2018); BCT, 2014; Stone, E.L. (2013):

- ▲ The use of lights utilising light emitting diodes (LED) without UV elements, therefore reducing the attraction of invertebrates to the lights;
- ▲ Only luminaires with 0 % upward light ratio should be used and fitted on the horizontal to avoid excessive up-lighting, back lighting and light spill onto boundary hedgerows and trees;
- ▲ A warm white spectrum (between 2000 – 3000 Kelvin) should be used in order to reduce blue light component, therefore reducing the number of invertebrates attracted to the lights;
- ▲ Luminaires should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats;
- ▲ Ideally the lux level should be 0 and 2 as this is within the range of natural moonlight; and
- ▲ The vegetation planted on Site and any roosting habitats should be unlit.

GCNs and Reptiles

Whilst it is not known to what extent any boundary vegetation will require removal, a precautionary approach must be put in place to ensure that, if present in the immediate area, GCNs and reptiles are not disturbed or harmed by the proposals:

- ▲ Any clearance of boundary vegetation must be undertaken during the active season for these species (April-October, inclusive) and under the supervision of a GCN licensed ecologist;
- ▲ A toolbox talk to be given to all contractors prior to the commencement of works;
- ▲ All building materials must be stored on pallets; and
- ▲ No excavations must be left open to fill with rainwater.

Badger & Hedgehogs

- ▲ As is general good practice for Sites where these species may occur, it is recommended that no excavations or trenches are left uncovered overnight during the development works in order to prevent any wildlife from becoming trapped; or

- Alternatively, ramps can be provided to enable them to climb out of trenches or excavations.

Dormouse

A precautionary method statement should be followed with regards to dormice and the proposed clearance of identified vegetation. This will include:

- A suitably qualified ecologist will provide a tool box talk prior to the commencement of any vegetation clearance works to all contractors on-Site;
- Immediately prior to any clearance works, all suitable habitat within the working area will be fingertip searched by an experienced ecologist for the presence, or evidence of hazel dormice; and
- Vegetation clearance should be cut to stump height or a minimum of 20cm during December – March, inclusive. Alternatively, the vegetation can be removed in either early September to early October when dormice are active;

Hedgehogs

- All fencing within the development should allow access and egress for hedgehogs. This requires 13 cm² access to be left in a coordinated network to enable access and egress between suitable foraging habitats throughout the Site, and to the wider landscape. Hedgehogs require territories of up to 1 km and, as such, it is important large feeding areas are made available. Hedgehogs do not generally damage domestic gardens and this size of hole is not large enough for most household pets, or rabbits, to use; and
- Care should also be taken during removal of scrub and hedgerows, for the presence of hedgehogs. If a hedgehog is found it should be carefully lifted to a safe place of refuge outside the working area.

Site Protection

All works on Site should follow an appropriate working methodology to avoid inadvertent damage to habitats and associated fauna retained on, or surrounding, the Site. This includes the following:

- All works should be undertaken in accordance with the UK governments 'Pollution Prevention for Business's' guidance (www.gov.uk), to ensure the National Park is not impacted upon; and
- Where works will impact protected and notable species of flora and fauna a suitable method statement should be incorporated into the Site Construction Environmental Management Plan (CEMP).

General Site Enhancement

Following the issue of the NPPF (2019), by the Ministry of Housing, Communities and Local Government, *"Planning policies and decisions should contribute to and enhance the local environment by (d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures..."*; and, therefore, we recommend the following principles of design should be followed:

- Planting should aim to enhance retained or adjacent vegetation and be of native species, or those of known value to wildlife, sourced from local nurseries to enhance foraging opportunities for local birds and bats, by increasing the invertebrate diversity on-Site. It is recommended that hedgerows be planted along the southern boundary of the Site, and that the proposals include POS that is landscaped to benefit wildlife. A species list of recommended trees and shrubs is provided in Appendix F.
- Bird boxes, bat boxes and insect houses should be installed at the Site to improve nesting and roosting opportunities for wildlife. Delta Simons can provide further advice on the locations of bird, invertebrate and bat boxes for the Site once the final development plans are known.

7.0 Disclaimer

The recommendations contained in this Report represent Delta-Simons' professional opinions, based upon the information referred to in Section 1.0 of this Report, exercising the duty of care required of an experienced Ecology Consultant. Delta-Simons does not warrant or guarantee that the Site is free of Bats or other protected species.

The behaviour of animals can be unpredictable and may not conform to characteristics recorded in current scientific literature. This Report, therefore, cannot predict with absolute certainty that animal species will or will not occur in apparently suitable locations or habitats or that they will not occur in locations or habitats that appear unsuitable.

This Report was prepared by Delta-Simons for the sole and exclusive use of the Client and for the specific purpose for which Delta-Simons was instructed as defined in Section 1.0 of this Report. Nothing contained in this Report shall be construed to give any rights or benefits to anyone other than the Client and Delta-Simons, and all duties and responsibilities undertaken are for the sole and exclusive benefit of the Client and not for the benefit of any other party. In particular, Delta-Simons does not intend, without its written consent, for this Report to be disseminated to anyone other than the Client or to be used or relied upon by anyone other than the Client. Use of the Report by any other person is unauthorised and such use is at the sole risk of the user. Anyone using or relying upon this Report, other than the Client, agrees by virtue of its use to indemnify and hold harmless Delta-Simons from and against all claims, losses and damages (of whatsoever nature and howsoever or whensoever arising), arising out of or resulting from the performance of the work by the Consultant.

Figure 1 – Site Location Map

Figure 2 – Phase 1 Habitat Survey Plan



LEGEND

-  Site Boundary
-  Scattered broadleaved trees
-  Intact species-poor hedgerow
-  Fence
-  Improved grassland
-  Arable

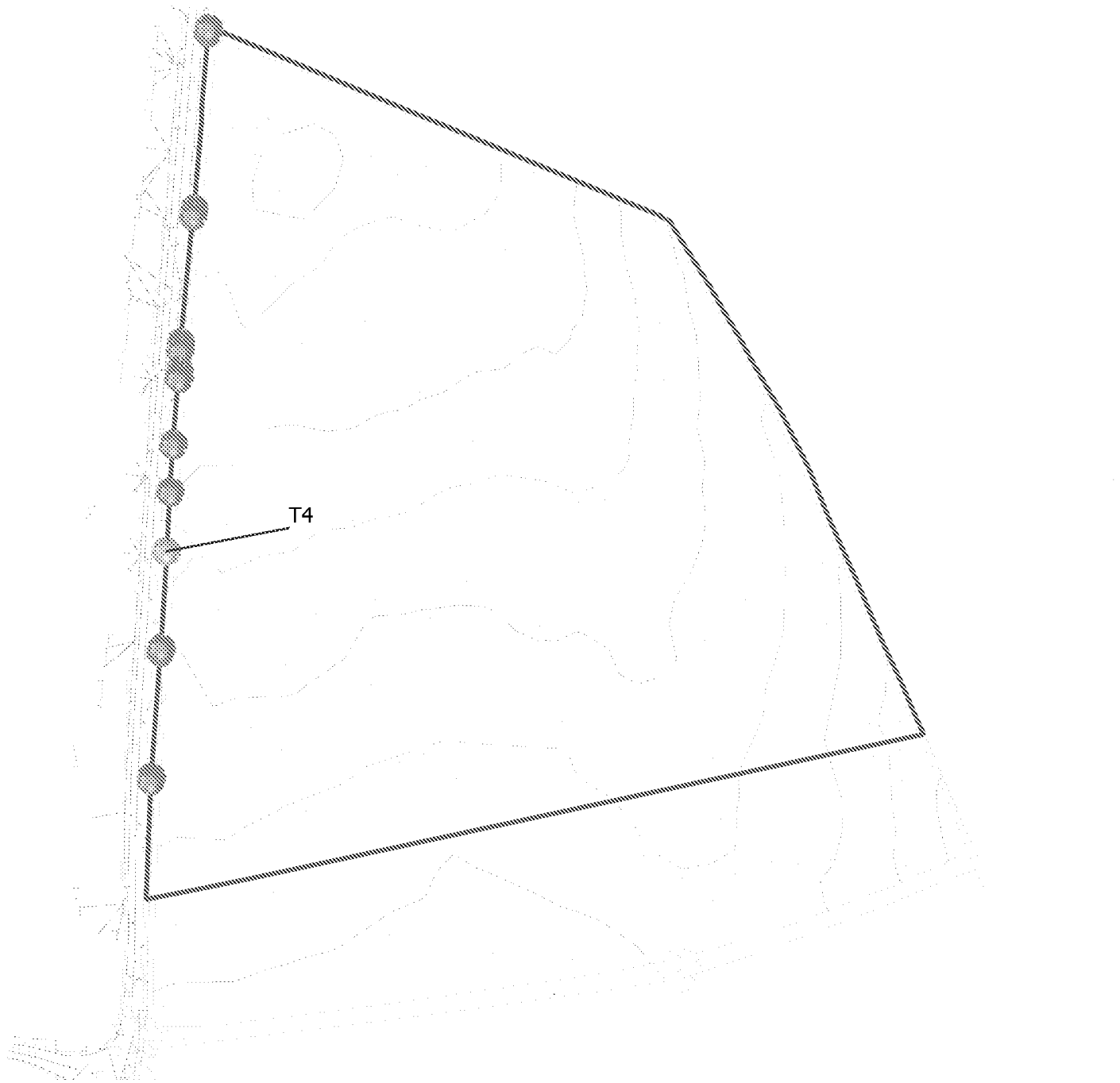
Site Plan Provided by Client

TITLE:

Phase 1 Habitat Survey Plan
Land East of Yapton Lane, Walberton
West Sussex

DRAWN BY: CD	SCALE (@A4): 1:2,500	PROJECT NO: 20-1611.01
CHECKED BY: PM	REVISION: -	FIGURE NO: 2
DATE: 30 July 2021		

Figure 3 – Results of Bat Roost Potential Assessment - Trees



Site Plan Provided by Client

LEGEND



Site Boundary



Tree with Moderate Bat Roost Potential



Tree with Negligible Bat Roost Potential

TITLE:

Bat Roost Potential Assessment - Trees
Land East of Yapton Lane, Walberton
West Sussex

DRAWN BY:

CD

SCALE (@A4):

1:2,500

PROJECT NO:

20-1611.01

CHECKED BY:

PM

REVISION:

-

FIGURE NO:

DATE:

30 July 2021

3

Appendix A – Relevant Legislation

Relevant Legislation

National Planning Policy Framework

The revised National Planning Policy Framework (NPPF), sets out, amongst other points, how 'Planning policies and decisions should contribute to and enhance the natural and local environment by:

"Minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressure"

The NPPF states that this should be achieved through local planning development frameworks and gives recommendations for criteria based policies which recognise the hierarchy of designated sites which range from internationally important habitat, to sites of importance at a local level and ensure that protection is *"in a manner commensurate with their statutory status or identified quality in the development plan."*

A list of principles which local planning authorities should follow when determining planning applications is included in the NPPF:

- ✦ *"If significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;*
- ✦ *Development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;*
- ✦ *Development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons^[1] and a suitable compensation strategy exists;*
- ✦ *Development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate"*

The following should be given the same protection as habitats sites:

- ✦ Potential Special Protection Areas and possible Special Areas of Conservation;
- ✦ Listed or proposed Ramsar sites; and
- ✦ Sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

It is also worth noting that where there are potential impacts upon internationally designated sites (Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites) as a result of a proposed development, *"The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site."*

In addition, the Office of the Deputy Prime Minister circular 06/2005 remains current. It states that *'The presence of a protected species is a material consideration when a planning authority is considering a development proposal'. The circular advises that local authorities should consult Natural England before granting planning permission if the proposals could adversely affect a protected species.'*

The Conservation of Habitats and Species Regulations 2017, as amended, are the British response to the Habitats & Species Directive 1992, and consolidate all the various amendments made to the Conservation

[1] For example, infrastructure projects (including nationally significant infrastructure projects, orders under the Transport and Works Act and hybrid bills), where the public benefit would clearly outweigh the loss or deterioration of habitat.

(Natural Habitats, &c.) Regulations 1994 in respect of England and Wales. The 1994 Regulations transposed Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law.

The Regulations for the protection of European Protected Species (EPS) have been amended and consolidated with key changes including the removal of most of the defences from Regulation 40 and Regulation 43 including the removal of the 'incidental result of an otherwise lawful operation' defence, and the increase in the threshold for the offence of deliberately disturbing a EPS. Proposals that will affect European protected species may require a licence from Natural England to allow an otherwise unlawful act. In the 2009 a new offence of 'breaching condition of an EPS licence' was added to the regulations. The licensing process is separate from and planning process. European protected species include all species of bats, great crested newt *Triturus cristatus*, dormouse *Muscardinus avellanarius*, and European otter *Lutra lutra*, amongst others.

The Wildlife and Countryside Act (WCA) 1981 (as amended)

This is the primary legislation covering endangered species in England and sets out the framework for the designation of Sites of Special Scientific Interest (SSSIs). It confers differing levels of protection on species themselves, their habitats or both depending on their conservation status. Species offered protection by the Act are listed in a series of schedules. These Schedules are subject to a rolling review every five years. Protected species are listed under Section 1 (birds), Schedule 5 (animals other than birds and invertebrates) and Schedule 8 (plants).

The Countryside and Rights of Way (CROW) Act 2000

The CROW Act, introduced in England and Wales in 2000, amends and strengthens existing wildlife legislation detailed in the WCA. It places a duty on government departments and the National Assembly for Wales to have regard for biodiversity, and provides increased powers for the protection and maintenance of SSSIs.

The Act also contains lists of habitats and species (Section 74) for which conservation measures should be promoted, in accordance with the recommendations of the Convention on Biological Diversity (Rio Earth Summit) 1992.

The Natural Environment and Rural Communities (NERC) Act 2006

Section 40 of the NERC Act places a duty upon all local authorities and public bodies in England and Wales to promote and enhance biodiversity in all of their functions. Section 41 (England) list habitats and species of principal importance to the conservation of biodiversity in England. These species and habitats are a material consideration in the planning process.

The Hedgerow Regulations 1997

Under the Hedgerow Regulations 1997, it is against the law to remove or destroy certain hedgerows without permission from the local authority.

Local planning authority permission is required before removing hedges that are at least 20 metres (66 feet) in length more than 30 years old and contain certain species of plant. The authority will assess the importance of the hedgerow using criteria set out in the regulations.

Species

Birds

All wild birds are protected under Section 1 of the WCA 1981 (as amended). Subsection 1(1) makes it an offence to intentionally kill, injure, or take any wild bird; take, damage or destroy the nest of any such bird whilst it is in use or being built; or take or destroy an egg of any such wild bird. It is, furthermore, an offence to either intentionally, or recklessly, disturb any wild bird listed on Schedule 1 while it is nest building, or at a nest containing eggs or young, or disturb the dependent young of such a bird. The law covers all species of wild birds including common, pest or opportunistic species.

Amphibians

All native amphibians are protected under the WCA 1981 (as amended), with some species also protected under the European Habitats Directive (92/43/EC), transposed in England and Wales through the Conservation

of Habitats and Species Regulations 2017. All amphibians are protected from keeping, transporting, selling or exchanging. This means that in practice reasonable measures must be taken to avoid their incidental mortality.

The Great Crested Newt (GCN) is protected under the Conservation of Habitats and Species Regulations 2017 and Schedule 5/9(4)(b) and (c) of the WCA 1981 (as amended). It is an offence to deliberately kill, injure, capture GCN or to deliberately disturb this species, or to intentionally or recklessly obstruct access to their places of shelter or protection, to damage or destroy their breeding sites or resting places, or to intentionally or recklessly disturb a GCN whilst in a place of shelter or protection. The legislation applies to all stages of the life cycle including eggs, larvae and juveniles. It should be noted that GCNs spend the majority of their lives on land, venturing up to 500 m (but more usually 250 m) from their breeding ponds and as such any ground works within 500 m of a breeding pond could potentially have an adverse effect on GCNs.

Reptiles

All six native species of reptiles are protected under the 1981 WCA (as amended), from intentional killing or injury. As such, all reasonable steps must be taken to avoid their incidental mortality when carrying out works.

Bats

All bats and their resting places are protected under Section 9(4)(b) and (c) of the WCA 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017.

It is an offence to destroy or damage a breeding site or resting place of a bat, to intentionally or recklessly obstruct access to any place of shelter or protection for bats, to deliberately disturb bat species, to intentionally or recklessly disturb a bat whilst in its place of shelter or protection, or deliberately capture, injure or kill a bat. It should be noted that a breeding site or resting place of a bat is protected whether or not bats are present, as long as it is likely that they will return, and any activity or works damaging or destroying such a breeding site or resting place are likely to require a Natural England European Protected Species Licence (EPSL).

Badgers

Badgers *Meles meles* and their setts are protected under the 1992 Protection of Badgers Act. Under this Act it is an offence to wilfully kill, injure, take, possess or cruelly ill-treat badgers, or to attempt to do so. It is also an offence to intentionally or recklessly damage, destroy, or obstruct access to any part of a sett, or to disturb an occupied sett, either by intent or negligence. When interpreting the Act, Natural England defines a sett as any structure within an area used by badgers that shows signs of having been occupied by badgers within the last 12 months.

Hazel Dormouse

Dormice are protected under Schedule 5 and 6 of the Wildlife and Countryside Act (WCA) 1981 (as amended) and by the Conservation of Habitats and Species Regulations 2017 (as amended). It is an offence to destroy or damage a breeding site or resting place of a dormouse, to intentionally or recklessly obstruct access to any place of shelter or protection for dormice, to deliberately disturb dormice, to intentionally or recklessly disturb a dormouse whilst in its place of shelter or protection, or deliberately capture, injure or kill a dormouse. Any activity or works damaging or destroying such a breeding site or resting place are likely to require a Natural England European Protected Species Licence (EPSL).

Dormouse are a Species of Principal Importance in England.

Invasive Species

Invasive species are plant species which are prohibited from release into the wild. There is an extensive list (currently 42) which are set out in section 14(2) of the WCA 1981 (as amended) which states that '*if any person plants or otherwise causes to grow in the wild any plant which is included in Part II of Schedule 9, he shall be guilty of an offence.*'

The most widespread of these are Japanese knotweed *Fallopia japonica* and giant hogweed *Heracleum mantegazzianum* which are also covered by several pieces of legislation. The Environmental Protection Act 1990 (as amended) is a broad ranging piece of legislation that singles out Japanese knotweed and giant hogweed for special mention. The Act places a 'Duty of Care' on the producer and anyone they employ to dispose of soil or other material contaminated with Japanese knotweed or giant hogweed, such material

becomes a controlled waste, which can only be taken to licensed landfill and must be dealt with in an appropriate way.

Appendix B – References

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Appendix C – Assessment of Structures, Trees and Habitats for Bats

Assessment of Structures, Trees and Habitats for Bats

Guidance on Assessing the Potential Suitability of Development Sites to Support Bats (adapted from Collins, J. (ed)).

Suitability	Description	
	Roosting	Commuting and Foraging
Negligible	An inspected structure or tree which is considered to have no features of importance for roosting bats. No further constraints apply to the method or timing of proposed works.	Negligible habitat features on-Site to support commuting or foraging bats.
Low	A structure with at least one or more features suitable to support opportunistic individual bats. However, inadequate space, shelter, protection and conditions, and the low suitability of surrounding habitats means that it is unlikely to be used as a maternity or hibernation roost site. A tree of adequate age and stature to support potential roosting features, however, either no features, or only features of limited potential recorded from the ground.	Habitat with potential to support low numbers of commuting bats due to its quality and connectivity. For example, a gappy hedgerow or unvegetated stream that is isolated from the surrounding landscape. Alternatively, suitable but isolated habitats suitable to support low numbers of foraging bats such as a lone tree or a patch of scrub.
Moderate	A structure or tree with one or more potential roost sites that are of adequate size, shelter and protection, with suitable conditions and surrounding habitat to support a bat roost not of high conservation status (with respect to roost type not individual species conservation status).	Linear habitat continuity connecting to the wider landscape offering potential to support commuting bats, such as rows of trees and scrub or linked back gardens. Habitat such as trees, scrub, grassland or a waterbody with connectivity to the wider landscape offering foraging opportunities for bats.
High	A structure or tree with one or more potential roost sites that are suitable for use by large numbers of bats on a regular basis and for long periods of time due to their size, shelter, protection, conditions and the surrounding habitat.	Continuous high-quality habitat with strong connectivity to the wider landscape that is likely to be used by commuting bats on a regular basis, such as flowing waterbodies, hedgerows, rows of trees and woodland edges. High quality habitat with strong connectivity to the wider landscape that is likely to be regularly used by foraging bats, such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to, and connected to, known roost sites.

Appendix D – Site Photographs

Site Photographs



Photograph 1 – Scattered broadleaved trees within western boundary hedgerow

Photograph 2 – Dense scrub [WAITING FOR PICTURE]

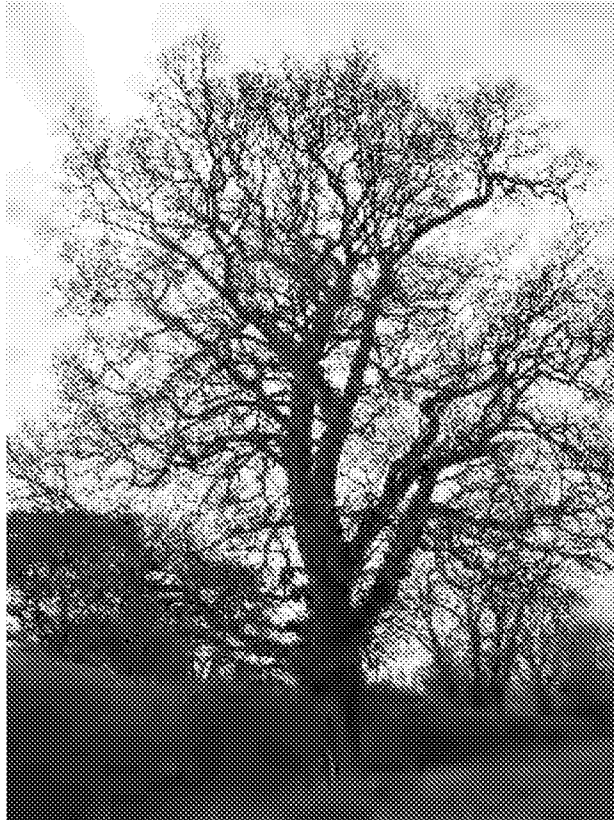
Photograph 3 – Improved grassland [WAITING FOR PICTURE]



Photograph 4 – Hedgerow 1



Photograph 5 – Hedgerow 2 and arable field



Photograph 6 – Tree 7

Appendix F – Native Floral Species to Plant for Wildlife Enhancement On-Site

Native Floral Species to Plant for Wildlife Enhancement On-Site

The following list gives good examples of plants for different conditions which have value for native fauna either as a food source or shelter. To maximise value for wildlife plants should ideally be native, not cultivars, and sourced locally where possible. Planting should look to provide food at all levels, with underplanting of trees with shrubs or species rich grassland to provide maximum value out of an area and add interest to planting schemes.

Note: it is currently generally not advised to plant ash because of ash die back. However, ash is a very valuable plant for wildlife especially as a semi-mature and mature tree. Therefore, if locally sourced trees or self-sets known to be free of the fungus are available then these should be incorporated. Additionally, trees not showing signs of being affected should be retained where possible.

Trees and Shrubs

Large trees

- ▲ Beech *Fagus sylvatica*;
- ▲ Bird cherry *Prunus padus*;
- ▲ Elm *Ulmus procera*;
- ▲ Oaks *Quercus robur* and *Q. petraea*;
- ▲ White willow *Salix alba*;
- ▲ Field maple *Acer campestre*;
- ▲ Silver birch *Betula pendula*;
- ▲ Rowan *Sorbus aucuparia*;
- ▲ Small-leaved lime *Tilia cordata*; and
- ▲ Walnut *Juglans regia*.

Medium/Small Trees

- ▲ Alder *Alnus glutinosa*;
- ▲ Apples *Malus* spp. (local varieties can be found);
- ▲ Field maple *Acer campestre*;
- ▲ Holly *Ilex aquifolium*;
- ▲ Pears *Pyrus* spp.;
- ▲ Rowan *Sorbus aucuparia*;
- ▲ Silver birch *Betula pendula*;
- ▲ Yew *Taxus baccata*;
- ▲ Elder *Sambucus nigra*;
- ▲ Hazel *Corylus avellana*;
- ▲ Hawthorn *Crataegus monogyna*;
- ▲ Honeysuckle *Lonicera periclymenum*;
- ▲ Wild privet *Ligustrum vulgare*;
- ▲ Blackthorn *Prunus spinosa*; and
- ▲ Guelder-rose *Viburnum opulus*.

Plants for hedgerows and woodland understoreys

A combination of shrubs and climbers can make attractive hedges of great benefit for wildlife, as well as providing a functional boundary. Standard trees should be incorporated in hedgerows, with ash, oak and wayfarer tree three traditional choices, depending on the region. These should be marked so as not to be cut during management works. In addition, undersowing with a suitable shade tolerant wildflower mix is important to maximise value.

Trees and shrubs suitable for hedges and understorey planting

- ⌘ Blackthorn *Prunus spinosa*;
- ⌘ Buckthorn *Rhamnus catharticus*;
- ⌘ Field maple *Acer campestre*;
- ⌘ Holly *Ilex aquifolium*;
- ⌘ Elder *Sambucus nigra*;
- ⌘ Guelder rose *Viburnum opulus*;
- ⌘ Hawthorn *Crataegus monogyna*;
- ⌘ Hazel *Corylus avellana*;
- ⌘ Privets, including wild privet *Ligustrum vulgare*; and
- ⌘ Spindle *Euonymus europaeus*.

Climber and scramblers suitable for hedgerows and understorey planting

- ⌘ Dog rose *Rosa canina*;
- ⌘ Field rose *Rosa arvensis*;
- ⌘ Ivy *Hedera helix*;
- ⌘ Honeysuckle *Lonicera periclymenum*;
- ⌘ Wild clematis/old man's beard *Clematis vitalba*; and
- ⌘ Hop *Humulus lupulus*.

Understorey flowering plants providing ground cover for shady areas

These species flower early before trees are in full leaf, and will do well in areas that become shady later in the year.

- ⌘ Bluebell *Hyacinthoides non-scripta*;
- ⌘ Bugle *Ajuga reptans*;
- ⌘ Wild daffodil *Narcissus pseudonarcissus*;
- ⌘ Foxglove *Digitalis purpurea*;
- ⌘ Lords-and-ladies/cuckoopint *Arum maculatum*;
- ⌘ Primrose *Primula vulgaris*;
- ⌘ Sweet violet *Viola odorata*; and
- ⌘ Wood avens *Geum urbanum*.