

Preston Farm, Shoreham, Kent.

Preliminary Ecological Appraisal

A Report for Mr D. Bedford

June 2019



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Controlled Copy

01 of 02

01 Mr D. Bedford

02 Greenspace Ecological Solutions Ltd

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*The content of this report is the responsibility of Greenspace Ecological Solutions Ltd.
It should be noted that whilst every effort has been made to meet the client's requirements, no site survey can ensure complete assessment or prediction of the changeable onsite environment. Furthermore, should more than 12 months elapse between the date of this survey and any subsequent development, it may be necessary to consider the need for an update survey to be undertaken.*

Report Number J20717

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1 PROJECT OVERVIEW

Client: Mr D. Bedford

Site Address: Preston Farm, Shoreham, Kent, TN14 7UD

Attending Ecologists: Joseph Dyson ACIEEM (Natural England Level 1 Bat Class Licence)
Tanya Rowlinson

Survey Date: 22nd May 2019

Site Proposals: Development of workspaces for small rural businesses.

Planning Reference: Not known

Source of Relevant Documents:

Document:	Source:
Site Location Plan:	Google Earth Pro
Desk Study:	Kent & Medway Biological Records Centre (KMBRC) Multi-Agency Geographic Information for the Countryside (Magic.gov.uk)
Site Plans:	DHA Planning

2 INTRODUCTION

2.1 Context

2.1.1 Prepared on behalf of Mr D. Bedford, the following sets out the results of a Preliminary Ecological Appraisal (PEA) conducted at Preston Farm, Shoreham, Kent; henceforth referred to as 'the site'. Final proposals for the site are currently unknown but are thought to involve the development of workspaces for rural developments.

2.1.2 The site's potential to support protected species and habitats has been assessed and appropriate recommendations have been provided. Ecological features of interest are depicted in Figure 1.

2.2 Site Location

2.2.1 The site is situated in a rural location approximately 1.36km north east of the village of Shoreham in Kent at Ordnance Survey (OS) Grid Reference: TQ 52655 62672. The geographical location of the site is depicted in Image 1.



Image 1. Geographical Location of Preston Farm.

2.3 Site Description

2.3.1 The site is approximately 1.9 hectares (ha) in area and comprises a large group of agricultural and commercial buildings as well as associated areas of hardstanding and amenity gardens.

2.3.2 The surrounding landscape is predominantly farmland with scattered rural dwellings and

blocks of woodland which are connected by hedgerows.

2.4 Policies and Legislation

Legislation

2.4.1 The main legislation that applies to ecological issues within England and Wales are:

- The Conservation of Habitat and Species Regulations 2018 transposes European Union Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law. These regulations provide for the designation and protection of 'European Sites', the protection of 'European Protected Species' and the adaptation of planning controls for the protection of such sites and species. Under the regulations, public bodies have a duty in exercising their functions to have regard to the EC Habitats Directive.
- The Wildlife and Countryside Act 1981 (as amended) provides detail on a range of protection and offences relating to wild birds, other animals, and plants. The level of protection depends on which Schedule of the Act the species is listed on. Licences are available for specific purposes to permit actions that would otherwise constitute an offence in relation to species.
- The Natural Environment and Rural Communities (NERC) Act 2006 imposes an obligation on all public bodies, including local authorities, to consider whether their activities can contribute to the protection of wildlife. The duty is created by section 40(1) of the Act, which states that: "Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity."
- The Hedgerows Regulations Act 1997 serves to; enforce under the Environment Act 1995, restrict the removal of hedgerows, or parts of hedgerows which are over 20m in length. In this case, removal includes digging up and replanting elsewhere, as well as removing from the land completely or destroying in the course of other actions. This includes developments or activities which destroy the roots, causing the vegetation to die.
- The Protection of Badgers Act 1992 exists to protect badgers *Meles meles* from cruelty. Under the act it a criminal offense to wilfully kill, injure, take, possess or cruelly ill-treat a badger, or to attempt to do so, or to intentionally or recklessly interfere with a sett.

2.4.2 The above summary serves as guidance only – the reader is referred to the original legislation for definitive interpretation.

2.5 **UK Planning Policy**

2.5.1 The recommendations of this report are in line with the key principles of the National Planning Policy Framework (NPPF) (2019) and Government Circular 06/05.

2.5.2 Local planning policies relating to ecology are invariably based on the conservation of species protected under the above legislation, including species and habitats of principal importance listed under Section 41 of the NERC Act 2006; and the protection of designated sites. All these features are considered within the scope of this preliminary ecological appraisal and therefore any recommendations made herein are likely to be in line with this policy.

2.6 **Objectives of the Survey**

2.6.1 The objectives of the survey were to:

- Classify the main habitats present within the site;
- Evaluate the ecological importance of these habitats and any receptors that may reside within them;
- Assess trees and buildings for their suitability to support roosting bats;
- Identify any potential impacts on protected and designated areas within the wider landscape; and
- Provide recommendations regarding mitigation and compensation where required.

2.7 **Survey Constraints**

2.7.1 Measurements or indications of area provided within this report are estimates and are provided as a guide only.

3 SURVEY METHODOLOGY

3.1 Desk Study

3.1.1 A desk study was undertaken to determine the presence of sites and habitats of conservation importance together with historical records of protected and notable species within a 2km radius of the site.

3.1.2 The following bodies were consulted for the desk study:

- Magic.gov.org
- Kent & Medway Biological Records Centre (KMBRC)

3.2 Preliminary Ecological Appraisal (PEA)

3.2.1 The PEA was conducted on 22nd May 2019.

Habitats

3.2.2 The site has been surveyed using the Phase I Habitat Survey methodology outlined in 'The Handbook for Phase I Habitat Survey: A Technique for Environmental Audit' (JNCC, 2010). The survey identified the main plant communities present on the site, with abundance of identified characterising species noted according to the DAFOR scale. Classification of the habitat types also follows the Phase I Habitat Survey methodology.

3.2.3 The DAFOR scale characterises species abundance as Dominant (D), Abundant (A), Frequent (F), Occasional (O) or Rare (R). These scores represent the abundance within the defined area only and do not reflect national or regional abundances. Botanical species nomenclature follows Stace (2010).

3.2.4 Application of the above technique provides an inventory of the basic habitat types present and enables areas of greater botanical interest which may require further, more detailed, surveys to be identified. The habitats have been mapped and are provided in Figure 1. Photographs of features of interest are presented in Appendix A.

Protected Species

3.2.5 The Phase I Habitat Survey was extended to include an assessment of the site's suitability to support protected and notable species. The suitability of the habitats present on the site were also assessed for their provision of connectivity from other areas of potentially suitable habitat.

3.2.6 Where potential or evidence of protected species has been identified, the site has been subject to Phase 2 species specific surveys. A summary of the species-specific survey

methodology is as follows:

Badger

3.2.7 Evidence of badger activity on site (and where possible within 30 metres of the site, the distance generally considered to be the zone of disturbance) was assessed by searching for:

- Presence of setts, indicated by suitably sized holes or burrows;
- Evidence of badger hair and/or footprints;
- Evidence of well-used runs supported by secondary evidence such as foraging signs or footprints; and
- Presence of badger latrines.

Bats

3.2.8 Where buildings, trees or other structures were present, specific survey work was undertaken to assess their suitability to support roosting bats. In this instance, a variety of equipment was used to complete the bat scoping survey, including high powered torches, telephoto lens cameras and a ladder.

3.2.9 Any trees within the site, which were deemed likely to be affected by the development, were surveyed in accordance with current best practice guidance (Collins, 2016). Trees were inspected for features such as splits, fissures, delaminated bark, heavy ivy cover and woodpecker holes. Evidence such as droppings, staining and bats themselves were searched for below and in suitable features.

3.2.10 Where buildings were encountered, a full external and internal inspection was undertaken (access permitting). Any likely roosting or access points for bats such as raised fascia boards, missing/lifted tiles cracks or crevices in brick/blockwork and gaps in soffit boxes were recorded and searched for evidence of use by bats (staining, droppings, scratch marks, or the bats themselves). The results of a scoping survey enable the buildings and trees to be categorised as having 'Confirmed roosts'; or 'High', 'Moderate', 'Low' or 'Negligible' suitability to support roosting bats. An outline of categorisation procedure for classifying bat suitability is presented in Appendix B.

3.2.11 In accordance with current best practice guidance (Collins, 2016), the level of suitability determines the need or not for further summer emergence surveys. Although left to the discretion of the appointed ecologist, in most instances High suitability requires three, Moderate suitability requires two surveys and Low suitability requires one evening emergence or pre-dawn re-entry survey/s (although trees with Low suitability do not require further

emergence or pre-dawn re-entry surveys). Greater detail on the minimum number of surveys recommended in most instances is presented in Appendix C.

Breeding birds

3.2.12 The site was assessed for its potential to support other nesting bird species. Factors considered include suitable cover and feeding habitat, as well as any active or disused birds' nests.

Great Crested Newt

3.2.13 The site was assessed for its potential to support great crested newt (GCN) *Triturus cristatus* populations. Suitable terrestrial habitat for great crested newt includes long grass, tall ruderal, woodland and hedgerow borders, as well as wood and rubble piles that act as hibernacula.

3.2.14 No ponds were identified within 250m of the site.

Reptiles

3.2.15 The site was assessed for its potential to support reptile populations. Suitable habitat for reptiles includes long grass, vegetated boundaries, woodland and hedgerow borders, as well as wood and rubble piles that act as hibernacula.

Other Species

3.2.16 The site's suitability to support other protected and notable species of conservation concern was considered and recorded where present.

4 SURVEY RESULTS

4.1 Desk Study

Statutory Designated Sites

- 4.1.1 Three statutory designated sites exist within 2km or directly adjacent to the site. These are presented in Table 1. The site also lies within the Kent Downs Area of Outstanding Natural Beauty (AONB), which includes a number of distinctive habitats including unimproved chalk grassland, scrub communities and broadleaf woodlands.

Table 1- Statutory designated sites

Site Name	Description	Distance from site
Otford to Shoreham Downs (SSSI)	“These downs have woodland, scrub and species-rich chalk grassland, which has been traditionally managed by grazing. A decline in grazing has caused the chalk downland to become overgrown, but it is still very species diverse, with over a hundred plants recorded.”	330m E
Lullingstone Park (SSSI)	“The sites long continuity of woodland habitats including abundant dead-wood and many fungi has encouraged the development of a species-rich invertebrate fauna. Over 340 beetles have been recorded, including over 30 nationally scarce and 2 nationally rare species.”	1.4km NW
Magpie Bottom (SSSI)	“This steeply sloping area of chalk grassland has diverse herb flora, including the nationally rare Kentish milkwort and seven species of orchid, such as the scarce man orchid. There are also areas of woodland and scrub.”	1.5km SE

(SSSI – Site of Special Scientific Interest)

Non-statutory designated sites

- 4.1.2 There are seven non-statutory designated sites within 2km of the site. These are presented in Table 2.

Table 2 – Non-statutory designated sites within 2km.

Site Name	Distance from site
Lullingstone Park (LWS)	1.1km N
Dalhanna Chalk Slope (LWS)	1.1km W
Woodlands West of Shoreham (LWS)	1.1km SW
Fackenden Down Reserve (KWT)	1.5km S
Laundry Field (LWS)	1.6km N
Austin Lodge Valley (LWS)	1.6km NE

*(LWS – Local Wildlife Site)
(KWT – Kent Wildlife Trust Reserve)*

Ancient Woodland

- 4.1.3 28 areas of ancient woodland lie within 2km, the closest of which is an unnamed area of Ancient Semi-Natural Woodland (ASNW). The closest area of ASNW lies 535m south-east of the site.

NERC s41 Habitats of Principal Importance

- 4.1.4 Habitats listed under s41 of the NERC Act (2006) within 2km of the site are presented in Table 3.

Table 3 – NERC s41 Habitats of Principal Importance within 2km of the Site

Habitat Type	Distance from site
Deciduous woodland	40m W
Lowland calcareous grassland	180m E
Wood-pasture and parkland	860m N
Floodplain grazing marsh	1.8km SW

Protected or Notable Species

Bats

- 4.1.5 Bat species of conservation concern of potential relevance to the site are provided in Table 4.

Table 4 - Bat Species Recorded within 5km of the site

Common Name	Scientific Name	Legal Protection / Conservation Priority Status
Brown long-eared bat	<i>Plecotus auritus</i>	HabDir:A4; Berne:A2; Bonn:A2; BAP; S41; WCA5; KRDB2
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	HabDir:A4; Berne:A3; Bonn:A2; WCA5
Daubenton's bat	<i>Myotis daubentonii</i>	HabDir:A4; Berne:A2; Bonn:A2; WCA5
Leisler's bat	<i>Nyctalus leisleri</i>	HabDir:A4; Berne:A2; Bonn:A2; WCA5; KRDB1
Nathusius' pipistrelle bat	<i>Pipistrellus nathusii</i>	HabDir:A4; Berne:A2; Bonn:A2; WCA5
Natterer's bat	<i>Myotis nattereri</i>	HabDir:A4; Berne:A2; Bonn:A2; WCA5; KRDB2
Noctule	<i>Nyctalus noctula</i>	HabDir:A4; Berne:A2; Bonn:A2; BAP; S41; WCA5; KRDB2
Serotine	<i>Eptesicus serotinus</i>	HabDir:A4; Berne:A2; Bonn:A2; WCA5; KRDB3
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	HabDir:A4; Berne:A2; Bonn:A2; BAP; S41; WCA5

Other Mammals

4.1.6 Mammals of conservation interest of potential relevance to the site are presented in Table 5.

Table 5 – Other Mammal Records

Common Name	Scientific Name	Legal Protection / Conservation Priority Status	Closest record	Date
European otter	<i>Lutra lutra</i>	RedList_Global_post2001_NT, UKBAP_P, NERC_S.41	Adjacent W	1999
Hazel dormouse	<i>Muscardinus avellanarius</i>	ECH_IV, Bern_III, WCA5, CRoW	1.7km S	2009
West European hedgehog	<i>Erinaceus europaeus</i>	Bern_III	1.7km S	1970
European water vole	<i>Arvicola amphibius</i>	WCA5, CRoW	1.7km S	1970

Birds

4.1.7 Bird species of conservation interest that are likely to occur within the site are presented in Table 6.

Table 6 – Relevant Bird Records with 2km

Common Name	Scientific Name	Legal Protection / Conservation Priority Status
Tree Pipit	<i>Anthus trivialis</i>	BAP; Berne:A2; BoCC4:Red; KRDB2; S41
Lesser Spotted Woodpecker	<i>Dendrocopus minor</i>	BAP; Berne:A2; BoCC4:Red; KRDB2; S41
Corn Bunting	<i>Emberiza calandra</i>	BAP; Berne:A3; BoCC4:Red; KRDB2; S41
Song thrush	<i>Turdus philomelos</i>	BAP; Berne:A3; BoCC4:Red; BirdsDir:A2.2; KRDB2; S41
House sparrow	<i>Passer domesticus</i>	BAP; BoCC4:Red; KRDB2; S41
Nightingale	<i>Luscinia megarhynchos</i>	Berne:A2; BoCC4:Red; Bonn:A2; KRDB3
Yellowhammer	<i>Emberiza citrinella</i>	BAP; Berne:A2; BoCC4:Red; KRDB2; S41
House Martin	<i>Delichon urbicum</i>	Berne:A2; BoCC4:Amber
Skylark	<i>Alauda arvensis</i>	BAP; Berne:A3; BoCC4:Red; BirdsDir:A2.2; KRDB2; S41
Cuckoo	<i>Cuculus canorus</i>	BAP; Berne:A3; BoCC4:Red; S41; KRDB2

Herpetofauna

4.1.8 Herpetofauna species of conservation concern that are likely to occur within the site are presented in Table 7.

Table 7 – Herpetofauna Records with 2km

Common Name	Scientific Name	Legal Protection / Conservation Priority Status	Closest record	Date
Common lizard	<i>Zootoca vivipara</i>	Bern_III, WCA5(p)	350m E	2007
Grass snake	<i>Natrix helvetica</i>	Bern_III, WCA5(p)	350m E	2007
Great crested newt	<i>Triturus cristatus</i>	ECH_II, Bern_II, WCA5, CRoW	N/A	1989
Slow worm	<i>Anguis fragilis</i>	Bern_III, WCA5(p)	350m E	2007
Adder	<i>Vipera berus</i>	Bern_III, WCA5(p)	355m E	2008

4.2 Phase I Habitat Survey

4.2.1 The following habitat types were recorded within the site:

- Semi-improved grassland
- Intact hedgerows
- Buildings
- Hardstanding

Semi-improved grassland

4.2.2 An area of species poor semi-improved grassland is present on site located along the western boundary behind buildings B1 and B2. The area contained the following species: dominant perennial rye grass *Lolium perenne*; abundant common dandelion *Taraxacum officinale*, ribwort plantain *Plantago lanceolate* and Yorkshire fog grass *Holcus lanatus*; locally abundant cleavers *Galium aparine*, common nettle *Urtica dioica* and spotted medick *Medicago arabica*; occasional cocks-foot grass *Dactylis glomerata*, common hogweed *Heracleum sphondylium*, creeping buttercup *Ranunculus repens*, false oat grass *Arrhenatherum elatius*, field forget-me-not *Myosotis arvensis*, red fescue grass *Festuca rubra*, smooth sow thistle *Sonchus oleraceus*, toothed medick *Medicago polymorpha* and yarrow *Achillea millefolium*; frequent bulbous buttercup *Ranunculus bulbosus*, bush vetch *Vicia sepium*, cow parsley *Anthriscus sylvestris*, cut-leaved cranesbill *Geranium dissectum*, hop trefoil *Trifolium campestre* and rose *Rosa* sp.; rare broad-leaved dock *Rumex obtusifolius* was also present.

Intact hedgerows

4.2.3 Two hedgerows were recorded on site.

4.2.4 H1 and H2. Two hedgerows run west to east, parallel to a section of the trackway into the site. These hedgerows are similar in characteristic and species composition, including: elder *Sambucus nigra*, dogwood *Cornus* sp., ash *Fraxinus excelsior*, bramble *Rubus fruticosus* agg.,

sycamore *Acer pseudoplatanus*, rose *Rosa* sp. and sweet chestnut *Castanea sativa*.

Buildings

- 4.2.5 The site contains 9 farm buildings of various sizes and layouts, the majority of which were large agricultural barns/stables. The combined footprint of these structures is approximately 2415 sq. m. A more detailed description and an assessment into the structure's suitability to support roosting bats is presented below in Section 4.3.

Hardstanding

- 4.2.6 Hardstanding in various states of good to moderate condition comprises the majority of the site, encroaching vegetation recorded within these areas consist of the following: creeping bent grass *Agrostis stolonifera*, common dandelion *Taraxacum officinale* agg., common nettle, moss *Bryophyta* sp. and white clover *Trifolium repens*.

4.3 Protected Species

Badgers

- 4.3.1 No suitable habitat for badgers was found on site and no evidence of badgers or badger setts was recorded during the survey.

Bats

Bats Roosting Habitat – Buildings

- 4.3.2 The 9 buildings found within the site are a mix of agricultural/farmyard buildings. They have been assessed for roosting bats and divided into B1 – B9 below.

B1

- 4.3.3 Building 1 is an open-sided pole barn, built from corrugated metal sheets and breeze blocks around a metal frame, it was deemed to be of '**Negligible**' suitability for roosting bats.

B2

- 4.3.4 Building 2 is a stable built from concrete and breeze blocks with wooden panelling covering the upper half of the elevations to the roof. The roof itself is a corrugated concrete pitched roof sitting directly onto timber frames. A number of the wooden panels have become warped or come away leaving suitable gaps for bats to enter. In addition, there are gaps where the timber supports meet the soffit and where the timber frame meets the roof. There is no insulation present. This building was deemed to be of '**Low**' suitability for roosting bats.

B3

- 4.3.5 Building 3 is a block of stables that is constructed out of a single skin of breeze block with wooden panelling for the stable entrances. The roof is a shallow pitched roof made from corrugated metal sheets. There are multiple gaps in the brickwork, wooden panelling, metal

roof and between the soffit. Internally it is well lit and heavily cobwebbed. This building was deemed to be of '**Moderate**' suitability for roosting bats.

B4

- 4.3.6 Building 4 is a hay barn constructed out of concrete breeze blocks and corrugated concrete sheeting on a concrete frame. The roof is single pitched and covered with corrugated concrete fibre sheeting. Internally it is well lit and open to the elements. There is no lining or insulation present. This building was deemed to be of '**Negligible**' suitability for roosting bats.

B5

- 4.3.7 Building 5 is a large set of stables constructed out of brick and breeze block, with corrugated metal and concrete fibre cladding. A single pitched roof made of corrugated material sits directly on a steel frame. Internally the building is well-lit with a constant draft and in constant use. No potential roosting features were identified with the exception of gaps under exterior cladding. This building was deemed to be of '**Low**' suitability for roosting bats.

B6

- 4.3.8 Building 6 is used to store equine tack and supplies and is constructed from breezeblock and a mixture of different types of brick. It has a connected garage which is also used for storage which is constructed with weatherboarding and breezeblock. The roof is covered with tiles of which some are slipped leaving gaps, and the eaves of the building are open. Internally there is no insulation and the roof is lined with felt in the southern extension. Potential areas for roosting internally include between tiles and the roof lining, and the beams and ridgeboard present from the frame. This building was deemed to be of '**Moderate**' suitability for roosting bats.

B7

- 4.3.9 Building 7 is a barn currently being used as a workshop. It is constructed with single skin breeze blocks to 1m with timber and corrugated metal making up the rest of the walls. The roof consists of slate tiles sitting on a timber frame. There are multiple raised and missing tiles along with raised ridge tiles. The timber weatherboarding is also warped in places opening it up to bats. Internally there is no insulation or lining and the slate tiles sit straight onto the timber frame. Potential areas for roosting are the gaps between the ridge board and beams and parts of the breezeblock wall that are damaged.

- 4.3.10 This building has previously had a Natural England European Protected Species Licence (EPS) (2016-19427-EPS-MIT-1) which is now out of date. The licence was for day roosts of common pipistrelle, brown long-eared and natterer's bat. Therefore, the building was deemed to be a

'Confirmed' roost.*B8*

- 4.3.11 Building 8 is the main farmhouse. It's constructed of brick walls with a single pitch roof covered with clay tiles. Potential roosting features consist of gaps in and missing tiles. Internally there is no insulation or lining, potential roosting features consist of crevice's in the roof. A ridge board is also present although access to a small portion of the roof void only was possible at the time of the survey. This building has been deemed to be of **'Moderate'** suitability for roosting bats.

B9

- 4.3.12 Building 9 consists of an oast house with adjoining breeze block stables and a pre-fabricated office building. The main oast is brick-built structure with rendering on the exterior. It has a pitched circular roof with tiles. The interior of the oast roof is lined with wooden panelling and insulated with lagging and was reportedly recently refurbished. It is tightly sealed with no gaps. The breezeblock stables and pre-fabricated office are also tightly sealed. This building and its adjoining structures were deemed to be of **'Negligible'** suitability for roosting bats.

Bats Roosting Habitat – Trees

- 4.3.13 None of the trees on site were deemed suitable for roosting bats.

Bats Foraging and Commuting Habitat

- 4.3.14 Within the site there is no suitable foraging habitat for bats, with the exception of within the open barns and stables. The stream, woodland and scrub adjacent to the site's western boundary provide suitable foraging habitat and commuting features for bats.

Nesting Birds

- 4.3.15 The buildings on site provide suitable habitat for nesting birds. No nests were recorded within the buildings but barn swallow *Hirundo rustica* activity was noted around the open structures B2 and B3.

Great Crested Newts

- 4.3.16 No suitable terrestrial habitat for GCN was found within the site. In addition, there are no waterbodies within 250m of the site.

Reptiles

- 4.3.17 No suitable habitat or hibernacula for reptiles was recorded within the site.

Other Protected Species

- 4.3.18 No other protected or notable species was recorded within the site.

5 CONCLUSIONS AND RECOMMENDATIONS

5.1 Designated Areas

- 5.1.1 The nearest designated site is the Otford to Shoreham Downs (SSSI), approximately 330m east of the site. Due to the distance between the site and the designated area, proposals are not anticipated to result in detrimental impacts upon the designated area.
- 5.1.2 The site is not located within any Impact Risk Zone (IRZ) of any SSSI's and therefore the proposed development requires no further consideration to the direct impacts on SSSI's.

5.2 Ancient Woodland

- 5.2.1 The closest ancient woodland block is located 535m south-east of the site. Guidance from Natural England and the Forestry Commission state that no development should occur within 15m of an ancient woodland. As the nearest block of ASNW is well over 15m away, the development will not affect any ASNW.

5.3 NERC Act (2006) Habitats of Principal Importance

- 5.3.1 The development will result in no detrimental impact to any habitats of principal importance listed under s41 of the NERC Act (2006).
- 5.3.2 The habitats to be affected are common and widespread and no further botanical surveys are required in this instance.

5.4 Protected Species

Badgers

- 5.4.1 The habitats on site do not provide suitable foraging or sett building opportunities for badgers furthermore, no evidence of badgers or badger setts was recorded during the survey and no further surveys for badgers are required.

Bats

Roosting Habitat – Buildings

- 5.4.2 Out of the 9 buildings assessed for bat roosting suitability, one was identified as a '**Confirmed**' roost, three were considered to be of '**Moderate**' suitability and two were considered to be of '**Low**' suitability to support roosting bats. Currently, proposals for the site have not been finalised but should proposals require any works to the buildings identified as having suitability to support roosting bats, then further surveys will be required prior to works commencing.
- 5.4.3 In accordance with the Bat Conservation Trust's Bat Survey Good Practice Guidelines (Collins, 2016), three dusk emergence or pre-dawn re-entry surveys are recommended for buildings

with Confirmed roosts/High suitability. Two dusk emergence or pre-dawn re-entry surveys are recommended for buildings with Moderate suitability and one survey for Low suitability buildings. Bat emergence/re-entry surveys can only be undertaken in suitable weather conditions between May and September (inclusive), with at least two surveys conducted between May and August. To ensure a robust data set is collated, these surveys must be undertaken by a team of suitably experienced ecologists using electronic bat detectors.

5.4.4 The information obtained from the emergence/re-entry surveys will serve to aid in the application of an appropriate licence from Natural England (if required) in order to proceed with the work. Consequently, no works must take place to these buildings until the surveys have been completed and (if required) a licence obtained from Natural England.

5.4.5 Beyond the scope of this report, the licence would set out the detail of the required timings and mitigation. Submission of the licence can only be made once all further surveys are complete, planning permission has been approved in Full and any wildlife related Conditions that can be released have been released. Approval of the licence will allow an individual to commit what would otherwise be any unlawful act. The unlawful act in this instance would be loss/destruction of a known bat roost.

5.4.6 All other buildings within the site have '**Negligible**' suitability to support roosting bats and no further surveys for bats are required of these structures.

Bats - Foraging and Commuting Habitat

5.4.7 The proposed development will not result in the loss of suitable bat foraging or commuting habitat. As a result, the impact of the proposed development upon foraging or commuting bats is anticipated to be negligible.

Birds

5.4.8 Suitable nesting habitat for breeding birds exist throughout the site in the form of buildings. As all nesting birds are protected under the Wildlife and Countryside Act 1981 (as amended) it is recommended that works to these areas (where necessary) are conducted outside the core breeding period for birds of Late February – August inclusive.

5.4.9 Should this timeframe be unobtainable, a thorough search for the presence of breeding birds should be conducted by a suitably experienced ecologist prior to the start of any works. Should evidence of breeding birds be recorded, works within 5m of the nest, or works that have potential to destroy the nest, should stop until the eggs have hatched and the chicks fledged, or the nest is deemed by a suitably experienced ecologist to have been abandoned.

Great Crested Newts

5.4.10 Given that the development will not affect habitats suitable to support GCN, development of the site is not anticipated to result in detrimental impacts upon GCN and no further surveys for GCN are required.

Reptiles

5.4.11 Given that the development will not affect habitats suitable to support reptiles, development of the site is not anticipated to result in detrimental impacts upon reptiles and no further surveys for reptiles are required.

Other species

5.4.12 With the exception of those noted above, development of the site is considered unlikely to impact any other species of conservation concern.

6 ECOLOGICAL ENHANCEMENTS

6.1.1 Opportunities to include biodiversity enhancements exist and in accordance with the requirements of the NPPF the following recommendations are considered appropriate:

- The installation of bat boxes installed in suitable locations would increase the site's suitability for roosting bats. 1 x integrated bat boxes such as those provided by www.habibat.co.uk, should be installed within each proposed dwelling. These boxes should be installed at a height of 3m or more or at eaves height on sunny, sheltered aspects, away from direct illumination by artificial lighting and in a location, which ensures connectivity to foraging habitats within the wider landscape.
- The installation of bird boxes in suitable locations within the site would increase the site's suitability for nesting birds. 1 x integrated bird boxes such as those provided by www.habibat.co.uk, should be installed within each proposed dwelling. To maximise suitability, boxes should be installed on sheltered aspects close to vegetation at a height of 2-3m, preferably on north, north-east or north-west facing elevations.
- The installation of barn swallow terraces in suitable locations would increase the site's potential for barn swallows.
- The incorporation of a wildlife-friendly planting scheme within the grounds post-development, using native fruiting and flowering plant species, would be of benefit to invertebrates, and subsequently birds and bats. It is recommended that any hedgerow / woodland edge mix enhancements utilise a mix of native species to maximise biodiversity.
- Any tree planting should be undertaken using native species that complement the nearby SSSI, such as pedunculate oak *Quercus robur*, alder *Alnus glutinosa*, hazel *Corylus avellana*, wild cherry *Prunus avium* and whitebeam *Sorbus aria* or similar.

7 SUMMARY

- 7.1.1 In response to the proposed development at Preston Farm, Shoreham, Kent, the site has been subject to a PEA. The site's potential to support protected species and habitats were assessed.
- 7.1.2 The scale of the development is considered unlikely to directly affect designated sites of conservation importance, areas of ancient woodland or any habitats of principal importance.
- 7.1.3 Although the final proposals are unknown, the buildings that are considered to have Confirmed roosts, Moderate or Low potential to support roosting bats require further surveys to determine the presence / likely absence of bats.
- 7.1.4 Suitable nesting habitat for birds exists and should be retained where possible. Should suitable nesting habitat be affected, timings and methods of best practice should be adhered to. To offset the loss of any suitable breeding habitat, replacement nesting opportunities to be included within suitable areas of the site have been recommended.
- 7.1.5 The likelihood of other protected and notable species to occur within the site is considered negligible, however, should at any point during the development a protected or notable species be identified within the site then all works should stop and the appointed ecologist consulted on the appropriate manner in which to proceed.
- 7.1.6 In accordance with the requirements of the NPPF, enhancements to increase the sites suitability for biodiversity on site have been provided.

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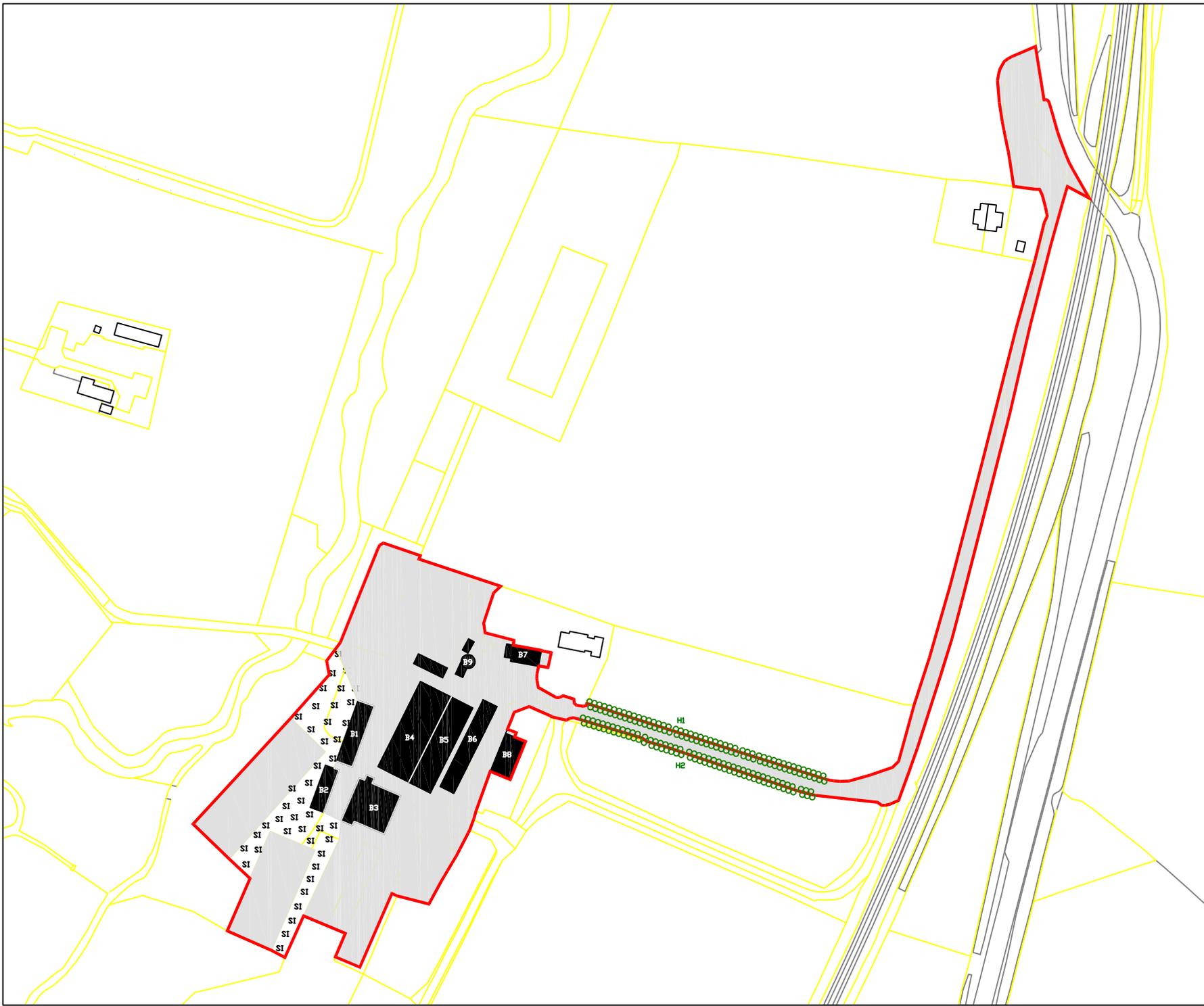
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Figures



Legend

-  Site Boundary
-  Semi-improved Grassland
-  Hedgerow
-  Building
-  Hardstanding



Job Reference : J20717
 Project Title: Preston Farm, Shoreham
 Drawing Title
 Figure 1: Phase 1 Habitat Map
 Date : 28-06-19 Checked : JJ
 Drawn : JD Approved : N/A
 Status : Final Scale : NTS

Appendices

APPENDIX A – PHOTOGRAPHS



Plate 1. B1. Open sided barn with Negligible suitability.



Plate 2. Rear of B2. Stables with Low suitability.



Plate 3. B3. Stables with Moderate suitability.



Plate 4. Damaged brickwork on the exterior of B3.



Plate 5. Interior of B4. Negligible suitability.



Plate 6. B5. Low suitability.



Plate 7. B6. Moderate suitability.



Plate 8. Interior roof space of B6 with ridge-board.



Plate 9. B7. Barn/workshop with Moderate suitability.



Plate 10. Interior roof space of B7 showing ridge-board.



Plate 12. Exterior of B8, the main farmhouse. Moderate suitability.



Plate 12. Interior roof space of B8 showing ridge-board.



Plate 13. B9. Oast. Negligible suitability.

APPENDIX B – Categories of Bat Roost Suitability

Roost type Level of suitability	Summer Roost used by Non- Breeding Bats	Maternity Roost	Hibernation Roost
Confirmed roost	Presence of bats or evidence of bats identified. Confirmation of a roost will likely require further surveys.		
High	Building/Structure or tree with multiple opportunities for one or more species of roosting bat. Optimal orientation. Good connectivity to optimal foraging habitats.	Building/Structure or tree with multiple roosting opportunities for pregnant female bats and young pups. Optimal orientation. Good connectivity to optimal foraging habitats.	Building/Structure or tree that has suitable thermal stability and levels of humidity to support torpid bats throughout the winter months.
Moderate	Building/Structure for tree with some opportunities for roosting bats. Preferable orientation. Connectivity to moderate to high quality foraging habitat available.	Building/Structure or tree with some roosting opportunities for pregnant female bats and young pups. Good orientation. Good connectivity to moderate to high quality foraging habitats.	Building/Structure or tree that has suitable thermal stability and levels of humidity to support torpid bats for some of the winter months. Moderate connectivity to suitable foraging areas.
Low	Building/Structure or tree with limited opportunities for roosting bats. Poor connectivity to foraging habitat.	Building/Structure or tree with limited opportunities for breeding bats. Poor connectivity to foraging habitat.	Building/Structure or tree with limited potential to support hibernating bats due to instable environmental conditions.
Negligible	Building/Structure or tree with no or very limited opportunities for roosting bats. Little to no connectivity to foraging habitat	Building/Structure or tree with no or very limited opportunities for breeding bats. Little to no connectivity to foraging habitat.	No suitable roosting opportunities for hibernating bats.

APPENDIX C – Minimum Number of Bat Surveys Required in Most Instances

Negligible	Low roost suitability	Moderate roost suitability	High roost suitability*
<p>Dusk emergence and/or pre-dawn re-entry surveys unlikely to be required.</p>	<p>Structures: 1 survey visit. 1 dusk emergence or pre-dawn re-entry survey^a.</p> <p>To be conducted during May – August.</p> <p>Trees: Dusk emergence and/or pre-dawn re-entry surveys unlikely to be required.</p>	<p>2 separate survey visits. 1 dusk emergence survey and 1 pre-dawn re-entry survey^b.</p> <p>To be conducted during May-September with at least one of the surveys May – August.</p>	<p>3 separate survey visits. At least 1 dusk emergence survey and a separate pre-dawn re-entry survey. The third visit could be either a dusk or dawn survey^b.</p> <p>To be undertaken during May-September with at least two of the surveys between May and August.</p>
<p>^a Structures that have been categorised as low suitability can be problematic and the number of surveys required should be judged on a case by case basis. If there is a possibility that quiet calling, late-emerging species are present then a dawn survey may be more appropriate, providing weather conditions are suitable. In some cases, more than one survey may be needed, particularly where there are several buildings in this category.</p> <p>^b Multiple survey visits should be spread out to sample as much of the recommended survey period as possible; It is recommended that surveys are spaced out at least two weeks apart, preferably more. A dawn survey immediately after a dusk survey is considered one visit. If there is potential for a maternity colony, then consideration should be given to seasonal detectability and the ecologist should use their professional judgement to design the most appropriate survey regime.</p> <p>*For the purpose of this exercise a confirmed roost is considered under the criteria of ‘High roost suitability’</p>			