Preliminary Ecological Appraisal

Land adjacent to Glynde Station
Glynde
East Sussex
BN8 6RU

1st August 2019

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This report has been prepared by

PJC Consultancy Ltd

on behalf of

Harringtons Lettings

Version	Author	Checked by	Approved by	Date	Type
1	Tara Hall	Nicolle Stevens	Tara Hall	01.08.19	Final

T: 01233 225365
E: team@pjcconsultancy.com

PJC Consultancy
Arboricultural, Ecological & Landscape Consultancy

Unit 1, Hanover Mill,
Mersham, Nr Ashford,
Kent, TN25 6NU.

EXECUTIVE SUMMARY

PJC Consultancy Ltd was commissioned by Harringtons Lettings to provide a Preliminary Ecological Appraisal for a parcel of land adjacent to Glynde station, Glynde, East Sussex, BN8 6RU. The purpose was to classify the habitats present, highlight the potential of the site to support protected species, and recommend suitable ecological enhancements and/or mitigation methods where appropriate. When implemented successfully, these recommendations will ensure that the development proceeds in line with all relevant laws pertaining protected species and their habitats, as well as contributing to an increase in site biodiversity. This report has been produced in accordance with NPPF – more specifically *Chapter* 15 '*Conserving and Enhancing the Natural Environment*' as well as the Lewes District Local Plan (2010–2030).

Based on current proposals, the results of the Preliminary Ecological Appraisal can be summarised in the following table:

Protected Species/Habitats	Suitable Habitat Present	Recommended Further Surveys	Ecological Mitigation
Bats (Roosting)	All trees within the Site were identified as having negligible potential to support roosting bats.	None.	Installation of artificial bat boxes.
Bats (Foraging and Commuting)	The Site was identified as having limited habitat suitability to support commuting and foraging bats.	None.	Incorporation of a sensitive lighting strategy.
Nesting Birds	The Site was identified as having potential to support nesting birds.	None.	Habitat clearance works should be undertaken outside the main nesting bird season. Should this not be possible, all trees and buildings must be inspected by an ecologist to determine the presence/absence of any nesting birds immediately prior to clearance. Installation of artificial bird boxes.

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1 INTRODUCTION

1.1 INSTRUCTION

1.1.1 PJC Consultancy Ltd was commissioned by Harringtons Lettings to provide a preliminary ecological appraisal (PEA) which includes an extended phase 1 habitat survey and a preliminary bat roost assessment (PBRA) of a parcel of land adjacent to Glynde Station, Glynde, East Sussex, BN8 6RU (hereafter referred to as the 'Site').

1.2 DOCUMENTS AND INFORMATION PROVIDED

1.2.1 PJC Consultancy Ltd was provided with a Site location plan demarcating a red-line boundary and an outline for proposals, provided by Jacob Chadwick Architects, document reference: GSNH/03B, LF Architecture Ltd, March 2019.

1.3 SURVEY OBJECTIVES

1.3.1 The aim of this PEA is to identify potential ecological constraints and opportunities associated with the Site by undertaking both an extended phase 1 habitat survey, ecological desk study and PBRA. The objectives were to:

- Identify the habitat types present on the Site;
- Identify the potential of the Site to support protected and notable habitats and/or species;
- Identify the potential of any trees and buildings within the Site to support roosting bats;
- Highlight known or potential legal or planning policy constraints in relation to ecology and recommend avoidance, mitigation and enhancement measures to satisfy legal and planning policy requirements where appropriate; and
- Identify, where necessary, the requirement for further survey.

1.4 SCOPE OF THIS REPORT

1.4.1 This PEA is only concerned with the habitats and features within the property boundaries of the Site, or in areas that have the potential to be affected by the proposed new development.

1.5 PROPOSAL

1.5.1 The current proposals include the construction of a single residential dwelling with associated parking and gardens.

1.6 SITE DESCRIPTION

1.6.1 The Site is located immediately north of Glynde Station railway line, with the station itself located to the east. The Site is located to the southwest of Glynde village centre, more broadly to the southeast of Lewes town centre. The central OS grid reference for the Site is: TQ 45716 08659. The Site comprises for the majority hard-standing, with a narrow belt of trees to the north and isolated pockets of ruderal vegetation throughout. The Site is located in a highly rural setting, with meadows and agricultural land on all aspects.

1.6.2 The location of the Site within its environs can be seen in Figure 1 below.

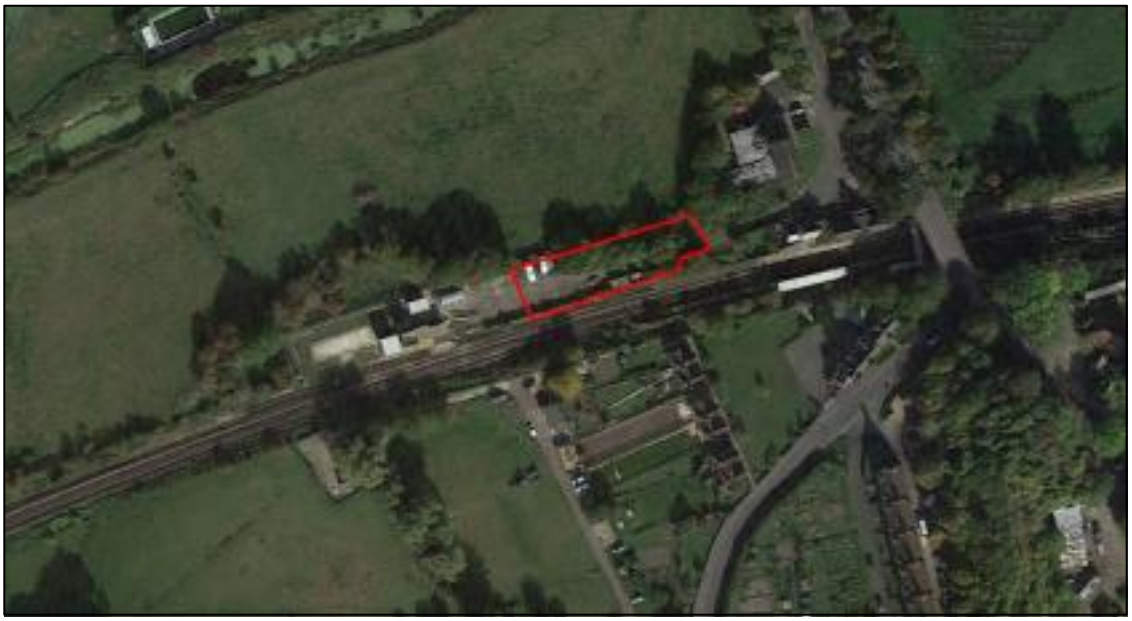

Figure 1: Site Location Plan (Google Earth Pro, 2018).

1.7 LEGISLATION AND PLANNING POLICY

1.7.1 This PEA has been compiled with reference to relevant wildlife and countryside legislation, planning policy and the UK Biodiversity Framework. Their context and applicability is explained as appropriate in the relevant sections of the report and additional details are presented in Appendix I.

1.7.2 The key articles of relevance are:

- The Conservation of Habitats and Species Regulations 2017 (as amended) (Habitats Regulations);
- The Wildlife and Countryside Act 1981, as amended (WCA);
- The Countryside and Rights of Way (CRoW) Act 2000;
- The Natural Environment and Rural Communities (NERC) Act 2006;
- National Planning Policy Framework (NPPF) 2019 (Ministry of Housing, Communities and Local Government, 2019);
- The Protection of Badgers Act 1992;

- The UK Post-2010 Biodiversity Framework (2011-2020);
- Lewes District Local Plan (2010-2030).

2 METHODOLOGY

2.1 DESK STUDY

2.1.1 A desk study was undertaken in May 2019 with the objective of collating and reviewing existing ecological information, and obtaining data and information held by relevant third parties. Biological records were requested from Sussex Biodiversity Records Centre, which included records of non-statutory sites designated for nature conservation value and records of legally protected and notable species within the zone of influence.

2.1.2 In addition, datasets from Natural England (MAGIC, 2018) were reviewed to identify the presence of UK statutory designated sites and notable habitats within the zone of influence including woodlands listed on the ancient woodland inventory, habitats of principal importance (HPI) and statutory designated for their nature conservation value at the European and/or international scale namely: special areas of conservation (SACs), special protection areas (SPAs) and internationally designated wetland (Ramsar) sites. These sites collectively are hereafter referred to as 'European Sites'. Where measurements are included with the record, these provide the distance of the designated site from the closest point of the Site.

2.1.3 The zone of influence is the area over which ecological features, such as designated sites of nature conservation importance and protected and notable habitats and species, may be affected by the biophysical changes caused by the proposed development and associated activities. Due to the size of the Site and nature of the proposed development it is considered that a zone of 1km from the centre of the Site is appropriate for the gathering of information for the desk study.

2.2 EXTENDED PHASE 1 HABITAT SURVEY

2.2.1 An extended phase 1 habitat survey was undertaken on the 4th July 2019 by Tara Hall BSc(Hons) ACIEEM following the standard 'Phase 1 Habitat survey' auditing method developed by the Joint Nature Conservancy Council (JNCC, 2010) and extended to include consideration of protected species in accordance with good practice guidance for preliminary ecological appraisal (CIEEM, 2017). The Site was surveyed on foot and the existing habitats and land uses were recorded on an appropriately scaled map (Appendix II). In addition, the dominant plant species in each habitat were recorded, as were any evidence of protected and notable species. The potential for the Site to support protected and notable species was also assessed. Those ecological features not classified as a habitat are denoted using a target note.

2.3 PRELIMINARY BAT ROOST ASSESSMENT

2.3.1 All trees within the Site were subject to a preliminary bat roost assessment (PBRA) on 4th July 2019 by Tara Hall BSc(Hons) ACIEEM (Natural England class 2 bat licence holder). The ground inspection of trees was to assess potential roosting features (PRFs) such as presented in Table 1. The PBRA was undertaken in accordance with best practice survey standards (BCT, 2016).

Table 1: Features of trees commonly used by bats.

Features of trees used as bat roosts	Signs indicating possible use by bats
Natural holes. Woodpecker holes. Cracks/splits in major limbs. Loose bark. Hollows/cavities. Dense epicormic growth (bats may roost within it). Bird and bat boxes.	Tiny scratches around entry point. Staining around entry point. Bat droppings in, around or below entrance. Audible squeaking at dusk or in warm weather. Flies around entry point. Distinctive smell of bats. Smoothing of surfaces around cavity

2.3.2 The trees were assessed in accordance with the criteria listed above and assigned to one of five categories as listed in Table 2 below.

Table 2: Categorisation system for visual inspection trees.

Category	Description
Confirmed roost	Bats discovered roosting within tree or recorded emerging from/entering tree at dusk and/or dawn. Tree found to contain conclusive evidence of occupation by bats, such as bat droppings. A confirmed record (as supplied by an established source such as the local bat group) would also apply to this category.
High potential	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a more regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.
Moderate potential	A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat but unlikely to support a roost of high conservation status.
Low potential	A tree of sufficient size and age to contain potential roost features but with none seen from the ground or features seen with only very limited roosting potential.
Negligible potential	A tree with no features capable of supporting roosting bats.

2.4 SURVEY LIMITATIONS

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

2.4.2 The protected species assessment provides a preliminary view of the likelihood of protected species occurring on Site, based on the suitability of the habitat and any direct evidence on Site. It should not be taken as providing a full and definitive survey of any protected species group. Additional surveys may be recommended if, on the basis of this assessment it is considered reasonably likely that protected species may be present.

2.4.3 The habitats present and their management are likely to change over time, thus the findings of the extended phase 1 habitat survey are only considered valid for a period of up to two years.

2.4.4 The biological records centre only provides the most recent record of a species within each 1km grid square, this means that PJC Consultancy are only able to state whether there is a record of a species within the area and the date of the most recent sighting, we are not able to decipher the abundance of a species within close proximity to the site with the information provided.

2.4.5 This document has been prepared for the stated proposal (1.5.1) and should not be relied upon or used for any other project without an additional check being carried out by the author as to its suitability in relation to any updated proposals. PJC Consultancy accepts no responsibility or liability for the consequence of this document being used for a purpose other than the purposes for which it was commissioned. PJC Consultancy accepts no responsibility or liability for this document to any party other than the person by whom it was commissioned.

3 RESULTS

3.1 DESK STUDY

Statutory Designated Sites

3.1.1 The Site lies within the South Downs National Park. In addition, the Lewes Downs Site of Special Scientific Interest (SSSI) and Special Area of Conservation (SAC) is located approximately 600m northwest of the Site. Furthermore, Lewes Downs (Mount Caburn) National Nature Reserve (NNR) is also located approximately 750m northwest of the Site.

3.1.2 Lewes Downs is an isolated block of downland which forms part of the South Downs. It is important for the extremely rich chalk grassland and scrub vegetation, which contains a number of southern and oceanic-southern species as well as a nationally rare orchid. The site also supports a rich invertebrate fauna including a rare month and an important breeding community of downland birds.

Non-Statutory Designated Sites

3.1.3 Two non-statutory designated sites of nature conservation importance are present within the zone of influence. These are summarised in Table 3 below.

Table 3: Non-statutory designated sites within the zone of influence.

Site Name	Designation	Distance and aspect from Site	Description/reasons for designation
Beddingham Grazing Marsh and Glynde Reach	Local Wildlife Site (LWS)	100m N at its closest point.	A wedge of semi-improved meadow with ditches between Mount Caburn to the north and the A27 and railway to the south. Glynde Reach is a tributary of the Ouse and runs from the meadows north eastwards. This part of the Reach supports particularly diverse bankside vegetation.
Ranscombe Lane, Glynde	Designated Road Verge	430m NW	No description is available, however designated road verges are known for their diverse flora and importance for local invertebrate populations.

Protected and Notable Habitats

3.1.4 Three parcels of ancient woodland listed on the ancient woodland inventory were identified within the zone of influence, the nearest being approximately 480m southeast the Site.

3.1.5 Approximately 22 parcels of HPI were identified within the zone of influence. These habitats included:

- Lowland meadows;

- Lowland calcareous grassland;
- Broadly classified deciduous woodland;
- Coastal and floodplain grazing marsh;
- Traditional orchard; and
- Chalk stream.

3.1.6 The closest parcel of HPI was an area of coastal and floodplain grazing marsh located immediately north of the Site.

Protected and Notable Species

3.1.7 Records of protected and notable species identified within the zone of influence are summarised in Table 4 below. For the purposes of the desk study, only records dated within the last 30 years have been considered.

Table 4: Summary of protected and notable species within the zone of influence

Taxon Name	Common name	Legal Status	No. of Records	Distance and Aspect of Nearest Record	Date of Most Recent Record
Bats					
Eptesicus serotinus	Serotine	Habitat Regs (2017), W&CA Sch5	3	350m N	2015
Nyctalus noctula	Noctule	Habitat Regs (2017), W&CA Sch5, NERC S41	2	540m NW	2015
Pipistrellus pipistrellus	Common pipistrelle	Habitat Regs (2017), W&CA Sch5	8	540m NW	2015
Pipistrellus pygmaeus	Soprano pipstrelle	Habitat Regs (2017), W&CA Sch5, NERC S41	3	460m NW	2014
Plecotus	Long-eared sp.	Habitat Regs (2017), W&CA Sch5, NERC S41	3	350m N	2015
Plecotus auritus	Brown long-eared	Habitat Regs (2017), W&CA Sch5, NERC S41	2	280m NW	2015
Other mammal species					
Arvicola amphibious	Water vole	W&CA Sch5, NERC S41	1	460m S	2003
Erinaceus europaeus	West European hedgehog	NERC S41	5	240m N	2018
Amphibians					
Bufo bufo	Common toad	W&CA Sch5, NERC S41	1	Within 1km grid square.	2011

Lissotriton vulgaris	Smooth newt	W&CA Sch5	1	Within 1km grid square.	2011
Lissotriton helveticus	Palmate newt	W&CA Sch5	1	Within 1km grid square.	2004
Rana temporaria	Common frog	W&CA Sch5	1	Within 1km grid square.	2011
Triturus cristatus	Great crested newt	Habitat Regs (2017), W&CA Sch5, NERC S41	1	Within 1km grid square.	2011
Birds (including only protected bird species listed on Schedule 1 (Part 1) of the Wildlife and Countryside Act 1981 (as amended).					
Cygnus columbianus subsp. bewickii	Bewick's Swan	WCA Sch1 Pt1, NERC S41, NERC S41	22	Within 1km grid square.	1995
Cygnus cygnus	Whooper Swan	WCA Sch1 Pt1	8	Within 1km grid square.	2005
Anas querquedula	Garganey	WCA Sch1 Pt1	8	Within 1km grid square.	2003
Coturnix coturnix	Quail	WCA Sch1 Pt1	5	Within 1km grid square.	1997
Pernis apivorus	Honey-buzzard	WCA Sch1 Pt1	2	Within 1km grid square.	2009
Milvus milvus	Red Kite	WCA Sch1 Pt1	8	Within 1km grid square.	2019
Circus aeruginosus	Marsh Harrier	WCA Sch1 Pt1	9	Within 1km grid square.	2009
Circus cyaneus	Hen Harrier	WCA Sch1 Pt1, NERC S41	24	Within 1km grid square.	2006
Circus pygargus	Montagu's Harrier	WCA Sch1 Pt1	2	Within 1km grid square.	1995
Pandion haliaetus	Osprey	WCA Sch1 Pt1	1	Within 1km grid square.	2015
Falco columbarius	Merlin	WCA Sch1 Pt1	12	Within 1km grid square.	2008
Falco subbuteo	Hobby	WCA Sch1 Pt1	25	Within 1km grid square.	2015
Falco peregrinus	Peregrine	WCA Sch1 Pt1	36	Within 1km grid square.	2015
Charadrius dubius	Little Ringed Plover	WCA Sch1 Pt1	1	Within 1km grid square.	1994
Numenius phaeopus	Whimbrel	WCA Sch1 Pt1	1	Within 1km grid square.	2004
Calidris pugnax	Ruff	WCA Sch1 Pt1	9	Within 1km grid square.	2000
Limosa limosa	Black-tailed Godwit	WCA Sch1 Pt1	3	Within 1km grid square.	2011
Tringa nebularia	Greenshank	WCA Sch1 Pt1	9	Within 1km grid square.	2004

Tringa ochropus	Green Sandpiper	WCA Sch1 Pt1	68	Within 1km grid square.	2009
Tringa glareola	Wood Sandpiper	WCA Sch1 Pt1	3	Within 1km grid square.	1995
Larus melanocephalus	Mediterranean Gull	WCA Sch1 Pt1	1	Within 1km grid square.	1991
Tyto alba	Barn Owl	WCA Sch1 Pt1	15	Within 1km grid square.	2018
Alcedo atthis	Kingfisher	WCA Sch1 Pt1	45	Within 1km grid square.	2016
Merops apiaster	Bee-eater	WCA Sch1 Pt1	5	Within 1km grid square.	2015
Upupa epops	Hoopoe	WCA Sch1 Pt1	1	Within 1km grid square.	2011
Jynx torquilla	Wryneck	WCA Sch1 Pt1	1	Within 1km grid square.	2009
Cettia cetti	Cetti's Warbler	WCA Sch1 Pt1	2	Within 1km grid square.	2017
Turdus pilaris	Fieldfare	WCA Sch1 Pt1	31	Within 1km grid square.	2017
Turdus iliacus	Redwing	WCA Sch1 Pt1	16	Within 1km grid square.	2016
Regulus ignicapilla	Firecrest	WCA Sch1 Pt1	15	Within 1km grid square.	2015
Fringilla montifringilla	Brambling	WCA Sch1 Pt1	3	Within 1km grid square.	2015
Loxia curvirostra	Common Crossbill	WCA Sch1 Pt1	2	Within 1km grid square.	2011
Plectrophenax nivalis	Snow Bunting	WCA Sch1 Pt1	1	Within 1km grid square.	2012
Invertebrates (including only protected invertebrate species listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended).					
Decticus cerrucivorus	Wart-biter cricket	W&CA Sch5, NERC S41	2	Within 1km grid square.	2017
Polyommatus bellargus	Adonis Blue	W&CA Sch5	20	Within 1km grid square.	2018
Polyommatus coridon	Chalk Hill Blue	W&CA Sch5	16	Within 1km grid square.	2015
Cupido minimus	Small Blue	W&CA Sch5, NERC S41	2	Within 1km grid square.	2009
Hesperia comma	Silver-spotted Skipper	W&CA Sch5	7	Within 1km grid square.	2018
Satyrium w-album	White-letter Hairstreak	W&CA Sch5, NERC S41	7	Within 1km grid square.	2015
Plants (including only protected plant species listed on Schedule 8 of the Wildlife and Countryside Act 1981 (as amended).					

Hyacinthoides non-scripta	Bluebell	W&CA Sch8	7	Within 1km grid square.	2009

3.2 EXTENDED PHASE 1 HABITAT SURVEY

3.2.1 Overall the Site comprises six habitat types. Habitat descriptions are provided below in accordance with the relevant JNCC phase 1 habitat survey handbook code. The distribution of these are shown in Appendix II, together with Site photographs, which are presented in Appendix III.

Scattered Scrub (A2.1)

3.2.2 A narrow and sparse belt of scrub consisting predominantly of bramble *Rubus fruticosus* agg, with occasional *Buddleja davidii,* elder *Sambucus nigra,* dog rose *Rosa canina* and wild clematis *Clematis vitalba* is located along the southern Site boundary, bordering the adjacent railway line.

Scattered Trees (A2.2)

3.2.3 A linear belt of semi-mature trees is located along the northern Site boundary, comprising predominantly field maple *Acer campestre* and damson *Prunus domestica,* with occasional hazel *Corylus avellana* and hawthorn *Crataegus monogyna.* No understory is present beneath the trees.

Tall Ruderal (C3.1)

3.2.4 Small pockets of ruderal vegetation dominated by common nettle *Urtica dioica,* with frequent hairy willowherb *Epilobium hirsutum* and occasional greater burdock *Arcitium lappa* are present along the Site boundaries.

Ephemeral/Short Perennial (J1.3)

3.2.5 Ephemeral growth was observed at the Site boundaries and growing throughout areas of hard-standing. Dominant species included viper's-bugloss *Echium vulgare,* common ragwort *Jacobaea vulgaris,* perforate St John's wort *Hypericum perforatum,* with frequent scarlet pimpernel *Anagallis arvensis* and rough hawkbit *Leontodon hispidus.*

Hard-standing (J3.6)

3.2.6 The majority of the Site comprises tarmacadam hard-standing, providing vehicle access and parking facilities.

Bare Ground (J4)

3.2.7 Bare earth is located beneath the on-site belt of scattered trees.

Target Note 1

3.2.8 Approximate location of parked caravans.

Target Note 2

3.2.9 Approximate location of a brash pile and rabbit warren.

3.3 PRELIMINARY BAT ROOST ASSESSMENT

3.3.1 A description of the trees and any potential roosting features (PRF) are detailed in Table 4 below:

Table 4: PBRA results of trees within or immediately adjacent the Site

All trees within the Site
Description
A linear belt of semi-mature and young deciduous trees, with an overall average height of approximately 8m.
Evidence of Bats
None observed at the time of the survey.
Potential Roost Features
All trees within the Site with the exception of a dead *Malus* sp. were in good condition and no potential roost features such as cavities, limb defects or woodpecker holes were observed. The dead tree supported lifted bark, however the gaps created were superficial and not capable of supporting roosting bats.
Potential to Support Roosting Bats
Negligible.

4 DISCUSSION AND RECOMMENDATIONS

4.1 STATUTORY DESIGNATED SITES

4.1.1 The Site lies within the South Downs National Park and in addition, Lewes Downs SAC and SSSI is located approximately 600m west of the Site.

4.1.2 However, given the distance between the Site and the identified statutory designated sites, and the size of the Site and nature of the proposed development, adverse effects upon the statutory designated sites and their qualifying criteria for designation are not considered likely. Statutory designated sites are therefore not considered an ecological constraint and are not considered further in this report.

4.1.3 The Site is located within an impact risk zone for Lewes Downs SSSI and SAC. However, the proposed development does not fall into the listed development categories.

4.2 NON-STATUTORY DESIGNATED SITES

4.2.1 Overall, two non-statutory designated sites of nature conservation importance are present within the zone of influence. These were Beddingham grazing marsh and Glynde Reach LWS (located approximately 100m north of the Site at its closest point) and Ranscombe Lane designated road verge (430m northwest of the Site).

4.2.2 Given the small scale of the proposed development, adverse effects on the LWS are not considered likely. However as the LWS is located within 100m of the Site, it is recommended that the following mitigation measures with regards to pollution prevention are adhered to.

4.2.3 A strict pollution prevention protocol must be adhered to during the demolition and construction phase of the proposed development, to ensure that that indirect disturbance to habitats and wildlife within the LWS is avoided. Pollution prevention measures shall include:

- Undertaking construction works during periods of low rain fall and predicted dry weather to avoid surface water run-off;
- Regular watering down of the demolition and construction area to reduce emissions;
- Appropriate covering of skips and vehicles; and
- Avoidance of burning materials on-site.

4.3 PROTECTED AND NOTABLE HABITATS

4.3.1 Overall, three parcels of ancient woodland and 22 parcels of HPI are present within the zone of influence, the nearest being an area of coastal grazing marsh immediately north of the Site.

4.3.2 Providing the mitigation measures detailed in paragraph 4.2.3 above are adhered to throughout the development, the proposals are not considered likely to adversely impact

the HPI adjacent to the Site. Protected and notable habitats are therefore not considered an ecological constraint and are not considered further in this report.

4.4 PROTECTED AND NOTABLE SPECIES

4.4.1 The Site provides some opportunity for protected and notable species. The suitability of habitats on Site to support species is considered below.

Bats

4.4.2 All bats are European protected species (EPS) and both individual animals and their roosts are afforded protection under the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act, 1981 (as amended). Certain bat species are also listed as Species of Principal Importance (SPI) under the NERC Act 2006 and Sussex priority species.

4.4.3 Overall 21 records comprising at least six bat species were identified within the zone of influence.

4.4.4 As part of the PBRA, all trees within the Site were identified as having negligible suitability to support roosting bats because of their structural condition being sound overall. It is therefore considered that roosting bats are highly likely absent from the trees. Roosting bats are therefore not considered an ecological constraint and are not considered further in this report.

4.4.5 The Site was considered to provide some limited suitable commuting and foraging habitat for bats, primarily the tree line along the northern Site boundary. However, these features are not considered to function as an important corridor for bats given the large network of connected woodland immediately adjacent the Site and within the wider landscape that also provides plentiful foraging and commuting opportunities for bats. On this basis, the proposed development is considered unlikely to result in the loss or degradation of bat foraging and commuting habitat or sever important commuting routes and obstruct access between potential bat roosts and important foraging habitats, providing the mitigation measures in relation to lighting described below are implemented during the construction and operational phase of the proposed development.

4.4.6 It is recommended that any new artificial lighting associated with the proposed development aims to:

- Use minimum light levels necessary. For example, there should be times throughout the evening (when bats are most active) when all outdoor security lights are unlit to avoid affecting bat activity. Lighting can also be installed using a timer or movement sensor to avoid long periods of an area being lit at night;
- Lighting should be a warm white spectrum and feature peak wavelengths higher than 550nm to lower the range of species affected by lighting. Using LED luminaires where possible and avoid luminaires with UV elements, specifically avoiding metal halide and fluorescent sources (Institute of Lighting Professionals, 2018); and
- Internal luminaries can be recessed where installed in proximity to windows to reduce glare (Institute of Lighting Professionals, 2018) and light spill and use hoods, louvres

or other similar design features to avoid light spill and direct light away from areas of mature vegetation and any adjacent HPI habitats.

Hazel Dormice

4.4.7 Hazel dormice *Muscardinus avellanarius* are EPS and are afforded protection under the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act, 1981 (as amended). Dormice are also listed as SPI under the NERC Act 2006 and are a Sussex priority species.

4.4.8 No dormice records were identified within the zone of influence.

4.4.9 The Site was considered to provide very limited suitable semi-natural habitat for dormice given the majority of the Site comprises hard-standing. Although a linear belt of trees is present along the northern Site boundary, these are considered unlikely to support dormice due to the absence of any form of understory i.e. bramble. Therefore the food source for dormice on-site is limited.

4.4.10 In addition, dormice are a predominantly arboreal species and the on-site trees are segregated from any suitable dormouse habitat i.e. deciduous woodland and native species-rich hedgerows, due to the sparse and defunct nature of the linear vegetation present along the adjacent railway line.

4.4.11 On this basis, the Site was identified as having negligible potential to support dormice and are therefore not considered an ecological constraint and are not considered further in this report.

Great Crested Newts and other Amphibians

4.4.12 Great crested newts (GCN) *Triturus cristatus* are EPS and are afforded protection under the Conservation of Habitats and Species Regulations 2017 (as amended) and the Wildlife and Countryside Act, 1981 (as amended). GCN and common toad *Bufo bufo* are also listed as SPI under the NERC Act 2006 and are a Sussex priority species.

4.4.13 A single GCN record was identified within the zone of influence indicating that GCN are likely present within the wider landscape.

4.4.14 No waterbodies were identified within the Site. On this basis, the Site was considered to provide negligible breeding opportunities for GCN given the absence of suitable aquatic habitat within the Site. The Site supported a group of trees and small parcels of tall ruderal vegetation, which provided some limited foraging and commuting opportunities for GCN during their terrestrial lifecycle phase.

4.4.15 A series of ditches which lead into Glynde Reach were identified within a 250m radius of the Site. No standing waterbodies, which are preferred by GCN for breeding, i.e. ponds and lakes, were identified within a 250m radius of the Site.

4.4.16 Although the series of ditches present could be utilised by GCN for commuting and dispersal purposes to preferred breeding ponds, the habitats on-site predominantly

comprise hard-standing, with very limited semi-natural habitats suitable for GCN during their terrestrial lifecycle phase and those present are isolated to the Site peripheries.

4.4.17 The proposed development is therefore considered highly unlikely to result in the death or injury, or disturbance to GCN or result in the damage or destruction of a GCN breeding site or resting place given the absence of both suitable aquatic and very limited terrestrial habitat within the Site. On this basis, GCN are not considered an ecological constraint and are not considered further in this report.

4.4.18 This is supported by the rapid risk assessment tool within the GCN licence application form (WML-A14-2), which was used to assess the risk of the proposed development on GCN. Based on the current proposal that comprises very limited parcels i.e. under 0.1ha of habitat loss within 250m of any potential GCN breeding water body, the tool indicates a 'green' risk meaning the risk of an offence being committed is considered to be highly unlikely and that a European Protected Species (EPS) license is not required.

Reptiles

4.4.19 Native, widespread reptile species (common or viviparous lizard *Zootoca vivipara*, adder *Vipera berus*, grass snake *Natrix helvetica* and slow worm *Anguis fragilis*) are protected under Schedule 5 of The Wildlife and Countryside Act 1981 (as amended), making it an offence to kill or injure individual animals. All widespread reptile species are also listed as SPI under the NERC Act 2006 and are Sussex priority species.

4.4.20 No reptile records were identified within the zone of influence, however the habitats that surround the Site are considered likely to support widespread reptile species, including common lizard, slow worm and grass snake.

4.4.21 Habitats recorded within the Site, namely the tall ruderal and short perennial vegetation were considered to provide some limited commuting and basking opportunities for reptiles.

4.4.22 In order to comply with legislation protecting reptiles, the mitigation measures detailed below should be adhered to.

4.4.23 It is recommended that clearance of all vegetation over 150mm be undertaken using a sensitive vegetation clearance approach whereby a two phased cut is undertaken, firstly reducing the vegetation to 150mm above ground level, and then after a 24hr period, reducing the vegetation to ground level. Vegetation clearance should be undertaken in a southeast to northwest direction, making these areas unsuitable for reptiles. This will encourage them to disperse into retained semi-natural habitats immediately north of the Site. The timing of these works should coincide with reptiles being active (generally in dry, warm weather and greater than 9°C air temperature).

Birds

4.4.24 All birds, their nests and eggs are protected from killing and injury of individuals, damage and destruction of nests and destruction of eggs under the Wildlife and Countryside Act 1981 (as amended). Species listed in Schedule 1 (Part 1) of the Act are also protected from disturbance whilst nesting or whilst with dependent young, by special penalties. Many bird species are also listed as SPI under the NERC Act 2006 and are Sussex priority species.

4.4.25 Overall, 34 bird species listed on Schedule 1 (Part 1) of the Wildlife and Countryside Act 1981 (as amended) were identified within the zone of influence. Many other notable bird species listed as SPIs and/or Sussex priority species were also identified within the zone of influence.

4.4.26 The Site supported trees and a small area of scrub, which were considered to provide some nesting and foraging opportunities to a wide range of common bird species.

4.4.27 Works associated with any proposed development of the Site, for example tree felling could therefore result in direct adverse impacts on nesting birds. On this basis, nesting birds are therefore considered a potential ecological constraint. In order to comply with legislation protecting nesting birds the mitigation measures detailed below should be adhered to.

4.4.28 It is recommended that habitat clearance works be undertaken outside the main nesting bird season. The nesting bird season for most British bird species is between March and August (inclusive).

4.4.29 Should this not be possible, all suitable nesting habitat must be inspected by an ecologist to determine the presence/absence of any nesting birds prior to clearance. In the event of an active nest being identified, a temporary exclusion zone would need to be placed around the nest and development paused until the dependent young have fledged which may be several weeks. The ecologist will determine safe working distances and the distances will be dependent upon the bird species present.

4.4.30 Barn owls *Tyto alba* have recently been reclassified as 'green' status under the Birds of Conservation Concern (BoCC) and are categorised as a species of European Conservation Concern. The barn owl is given the highest level of legal protection possible under Schedule 1 of the Wildlife and Countryside Act 1981. It is therefore illegal to kill, injure or take a barn owl, or to take or destroy its eggs. It is also illegal to intentionally or recklessly take, damage, or destroy the nest of any wild bird while it is in use or being built, release or allow the escape of a barn owl into the wild or possess any bird (dead or alive) or part of bird without a licence which is obtainable through Natural England.

4.4.31 Overall, 15 barn owl records were identified within the zone of influence.

4.4.32 The Site was considered to provide negligible nesting potential for barn owls given the lack of suitable buildings or mature trees supporting hollows. On this basis, barn owls are not considered an ecological constraint.

Badgers

4.4.33 Badgers and their setts are protected under The Badger Act (1992).

4.4.34 No badger records have been submitted within the zone of influence and no evidence of badger field signs (for example hairs, latrines, dung pits, snuffle holes, mammal paths or scratching posts) or setts were recorded within the Site during the survey.

4.4.35 Habitats throughout the Site were considered to provide very limited sett building and foraging and commuting opportunities for badgers given the underlying hard-standing substrate throughout the majority of the Site.

4.4.36 On this basis, the proposed development is considered highly unlikely to result in the damage or destruction of a sett, or obstructing access to a sett, and disturbance to a badger whilst it is occupying a sett.

4.4.37 However, given the suitable foraging and commuting habitat that surrounds the Site and due to the mobile nature of the species and its ability to quickly establish new setts, badgers are still considered a potential ecological constraint to the proposed development.

4.4.38 As a precautionary approach it is recommended that a pre-works survey be undertaken immediately prior to the proposed development becoming operational to ensure no new setts have become established.

Other Mammal Species

4.4.39 Water voles *Arvicola amphibious* and their places of shelter are protected under the Wildlife and Countryside Act, 1981 (as amended) which makes it an offence to kill, injure or take any water vole, damage, destroy or obstruct access to any place of shelter or protection that the animals are using, or disturb voles while they are using such a place. Water voles are also listed as SPI under the NERC Act 2006 and are Sussex priority species.

4.4.40 Otters *Lutra lutra* are protected under the Conservation of Habitats and Species Regulations (2017) as amended and under the Wildlife and Countryside Act, 1981 (as amended) which makes it an offence to kill, injure or capture an otter, intentionally or recklessly disturb otters; or to damage, destroy or intentionally or recklessly obstruct access to a holt or other resting places. Otters are also listed as SPI under the NERC Act 2006 and are a Sussex priority species.

4.4.41 A single water vole record was identified within the zone of influence. No otter records were identified.

4.4.42 No aquatic and very limited suitable terrestrial habitat was recorded within the Site and immediate surroundings, as the closest ditch present is located approximately 100m west of the Site.

4.4.43 On this basis, the Site was identified as having negligible potential to support otter and water vole and are therefore not considered an ecological constraint and are not considered further in this report.

4.4.44 The European hedgehog *Erinaceus europaeus* is classified as an SPI under the NERC Act 2006 and are a Sussex priority species. Therefore, the presence of this species on site would be a material consideration in the planning process.

4.4.45 A total of five European hedgehog records were identified within the zone of influence, indicating that they are very likely present within the wider landscape.

4.4.46 The Site supported suitable some limited pockets of semi-natural habitat for hedgehogs. On this basis, the Site was identified as having potential to support European hedgehogs. However, the proposed development is considered unlikely to result in impacts on European hedgehogs given the size and nature of the Site and presence of other suitable habitat

within the wider surroundings, providing the mitigation measures detailed below are adhered to.

4.4.47 Hedgehogs should be specifically watched for during the removal of features considered to provide potential sheltering habitat (i.e. dense scrub and brash piles). If any hedgehogs are found they should be carefully moved to retained areas of vegetation outside of the Site.

Invertebrates

4.4.48 A number of invertebrate species such as stag beetles *Lucanus cervus* are afforded protection under the Conservation of Habitats and Species Regulations 2017 (as amended) and under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended). Many invertebrate species including the stag beetle are also listed as SPI under the NERC Act 2006 and are a Sussex priority species.

4.4.49 The white-clawed crayfish *Austropotamobius pallipes*, a freshwater invertebrate species, is also listed on Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended).

4.4.50 Overall, six European or nationally protected invertebrate species listed under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended) were identified within the zone of influence.

4.4.51 All protected invertebrate species listed on Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended) identified within the search area as part of the desk study are considered likely absent from the Site as they are all associated with calcareous grassland habitats, which is absent from the Site.

4.4.52 In addition, the Site was considered to provide very limited opportunities for protected and notable invertebrate species given the absence of invertebrate microhabitats such as woodland edge, herb-rich grassland habitats and deadwood. Protected and notable invertebrate species are therefore not considered an ecological constraint and are not considered further in this report.

Plants

4.4.53 Wild plants are protected under the Wildlife and Countryside Act 1981 (as amended) which prohibits the unauthorised intentional uprooting of any wild plant species and forbids any picking, uprooting or destruction of plants listed on Schedule 8 of which there are over 150 species. In addition, nine plant species are afforded protection under the Conservation of Habitats and Species Regulations 2017 (as amended). Many plant species are also listed as SPI under the NERC Act 2006 and are Sussex priority species.

4.4.54 English bluebells, which are listed in Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) were identified within the zone of influence.

4.4.55 The habitats on Site were common and widespread and therefore provided limited potential to support protected and notable and rare plant species.

4.4.56 Section 14(1) of the Wildlife and Countryside Act 1981 (as amended) makes it illegal to plant or otherwise cause to grow in the wild any plant listed in Schedule 9 of the Act including Japanese knotweed *Fallopia japonica*.

4.4.57 No Schedule 9 non-native invasive plant species were recorded within the Site.

4.4.58 On this basis, protected and notable plants including non-native invasive plant species are not considered an ecological constraint and are not considered further in this report.

4.5 ECOLOGICAL ENHANCEMENTS

4.5.1 Under Section 40 of the NERC Act 2006 there is a duty to have regard to biodiversity conservation. In addition, the National Planning Policy Framework and the Adopted Joint Lewes District South Downs National Park Core Strategy encourages ecological enhancement to be integrated into development projects in order to achieve an overall net-gain in biodiversity.

4.5.2 It should be noted that all pipistrelle bat species are Sussex priority species. Consideration should therefore also be given to the installation and maintenance of artificial bat bricks or bat tubes (i.e. Schwegler 1FR and 2FR bat tubes and Schwegler 1GS bat brick or similar) into any new buildings to increase the roosting opportunities for bats within the Site. Any artificial roosting features should be placed between 3 and 6m above ground in a variety of locations at slightly different heights and preferably positioned facing a southerly or southeasterly direction.

4.5.3 The installation of artificial bird nest boxes onto any new buildings on Site is also recommended. Given their designation as SPI, particular consideration should be given to installing house sparrow (i.e. Schwegler 1SP or similar) and starling (i.e. Schwegler 3S or similar) nest boxes onto any retained trees and any new buildings within the Site.

4.5.4 It is recommended that areas be set aside for ecological landscaping to increase the biodiversity value of the Site. All enhancement measures detailed below would benefit a wide variety of protected and notable species including Sussex priority species such as GCN, barn owl, song thrush and stag beetle.

4.5.5 It should be noted that hedgerows are a Sussex priority habitat. A dedicated habitat action plan (HAP) for hedgerows within Sussex has been compiled detailing relevant objectives and targets in order to provide effective conservation action for hedgerows. For example, one target is to '*encourage the planting of new native species-rich hedgerows widely among the agricultural community and Local Authorities*'. On this basis, consideration should be given to the planting of a native species rich hedgerow along all the Site boundaries. Approximately five woody plants should be planted per metre of hedgerow, in double staggered rows. The hedgerow should be managed on an annual rotation, whereby half of each hedgerow is cut in any one year. This will encourage a diverse structure to produce both a wide and dense hedgerow. Woody species planted could include the following species:

- Yew *Taxus baccata*;
- Oak *Quercus* sp;

- Hazel;
- Hawthorn;
- Alder *Alnus glutinosa*;
- Honeysuckle *Lonicera periclymenum*;
- Willows *Salix* spp.; and
- Crab apple *Malus sylvestris*.

4.5.6 Incorporation of dead wood habitat piles along the woodland edge and scrub habitats is also recommended; these are used by both invertebrates such as the stag beetle which is a SPI and Sussex priority species and by reptiles and widespread amphibians as refugia.

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PJC Consultancy
Arboricultural, Ecological & Landscape Consultancy

CONTACT DETAILS

Sussex Office
Rocks Yard
Victoria Road
Herstmonceux
Hailsham
East Sussex
BN27 4TQ

Tel: 01323 832120

Kent Office
Unit 1, Hanover Mill
Mersham
Nr Ashford
Kent
TN25 6NU

Tel: 01233 225365

E-mail: tara@pjcconsultancy.com

Author: Tara Hall BSc(Hons) ACIEEM

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APPENDICES

5.1 APPENDIX I: LEGISLATION AND PLANNING POLICY

Legislation

The Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (which consolidate and update the Conservation of Habitats and Species Regulations 2017) is the UK transposition of the European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, or the 'Habitats Directive'. The directive provides protection of key habitats and species of European importance. Those key habitats and species are listed in Annexes II and IV of the directive.

Those species protected under the regulations and most likely encountered during development include:

- All bat species
- Hazel dormouse
- Great crested newt
- Common otter

The Wildlife and Countryside Act 1981 (as amended)

The Wildlife and Countryside Act 1981 (as amended) is the primary legislation for the protection of wildlife in Great Britain. This legislation is the means by which the Convention on the Conservation of European Wildlife and Natural Habitats (the 'Bern Convention') and the European Union Directives on the Conservation of Wild Birds (79/409/EEC) and Natural Habitats and Wild Fauna and Flora (92/43/FFC) are implemented in Great Britain. All breeding birds, their nests, eggs and young are protected under the Act, which makes it illegal to knowingly destroy or disturb the nest site during nesting season. Schedules 1, 5 and 8 afford protection to individual birds, other animals and plants respectively. The Countryside and Rights of Way (CRoW) Act 2000 makes it an offence to 'recklessly' disturb a protected animal whilst it is using a place of rest or shelter or breeding/nest site

Those species protected under the act and most likely encountered during development include:

- All bat species
- All nesting birds
- Hazel dormouse
- Great crested newt
- Common otter
- Water vole
- All native reptile species
- White-clawed crayfish

The Protection of Badgers Act 1992

The Protection of Badgers Act 1992 consolidates and strengthens previous legislation (including the Badgers (Further Protection) Act 1991). Under the act, it is an offence to:

- Wilfully kill, injure or take a badger (or attempt to do so).
- Cruelly ill-treat a badger.
- Dig for a badger.

- Intentionally or recklessly damage or destroy a badger sett, or obstruct access to it.
- Cause a dog to enter a badger sett.
- Disturb a badger when it is occupying a sett.

The Natural Environment and Rural Communities Act (NERC) 2006

Section 40 of the Act requires all public bodies to have regard to biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'. Section 41 of the Act provides a list of habitats and species, which are of 'principal importance for the conservation of biodiversity.' This list aids decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act these habitats and species are regarded as a material consideration in determining planning applications.

Hedgerows Regulations 1997

These regulations were produced to protect important countryside hedges from removal. The regulations only cover hedgerows that are at least 20m long or, if shorter, connected to other hedgerows at both ends or part of a longer hedgerow. They must be in or adjacent to common land, village greens, site of special scientific interest, local nature reserves, or land used for agriculture, forestry or breeding or keeping of horses, ponies or donkeys.

Wild Mammals (Protection) Act 1996

All wild mammals are protected against intentional acts of cruelty under the above legislation. This makes it an offence to mutilate, kick, beat, nail or otherwise impale, stab, burn, stone, crush, drown, drag or asphyxiate any wild mammal with intent to inflict unnecessary suffering.

This legislation is of relevance when undertaking works with potential to affect wild mammals e.g. works near burrows, warrens or dens, regardless of other legislative protection.

Species and Habitat Specific Legislation

Plants

Wild plants are protected under Section 13 of the Wildlife and Countryside Act 1981 (as amended). It prohibits the unauthorised intentional uprooting of any wild plant species and forbids any picking, uprooting or destruction of plants listed on Schedule 8 of which there are over 150.

The Conservation of Habitats and Species Regulations 2017 (as amended) have nine plants listed within Annex IV these are; creeping marshwort *Apium repens*, early gentian *Gentianella anglica*, fen orchid *Liparis loeselii*, floating-leaved water plantain *Luronium natans*, killarney fern *Trichomanes speciosum*, lady's slipper *Cypripedium calceolus*, shore dock *Rumex rupestris*, slender naiad *Najas flexilis*, and yellow marsh saxifrage *Saxifraga hirculus*. It is an offence to deliberately pick, collect cut, uproot or destroy any protected plant, or keep, transport, sell, or exchange, any live or dead such plant species, this applies to all stages of its life cycle.

Invasive Species

Schedule 9, Section 14 of the Wildlife and Countryside Act (1981, as amended) prohibits the introduction into the wild of any species that is not ordinarily resident in and is not a regular visitor to Great Britain in a wild state, or any species of the 69 plants listed on Schedule 9.

The frequently encountered invasive species within proposed development sites include floating pennywort *Hydrocotyle ranunculoides*, giant hogweed *Heracleum mantegazzianum*, Himalayan balsam *Impatiens glandulifera*, Japanese knotweed *Fallopia japonica*, New Zealand *pygmyweed Crassula helmsi*, rhododendron *Rhododendron ponticum* and certain hybrids of the above, some species may be native yet are listed for conservation purposes.

Plant or soil material contaminated by Japanese knotweed that is to be discarded is considered to be a 'controlled waste' under the Environmental Protection Act 1990 (EPA 1990). It is an offence to deposit, treat, keep, or dispose of controlled waste without a licence. Furthermore knotweed that has been cut down and removed must be received by an authorised person to be disposed of correctly. A licence can be obtained from the Environment Agency (EA). The release or planting of a listed species in the wild can be permitted under a licence granted by the relevant statutory body.

Invertebrates

A number of invertebrates such as silver studded blue butterfly *Plebejus argus*, stag beetles *Lucanus cervus* and white letter hairstreak *Stymondia w-album* are fully protected under Schedule 5 of the Wildlife and Countryside Act (1981, as amended). This legislation makes it illegal to intentionally kill, injure, or take a protected invertebrate, or to damage, destroy, or obstruct access to any structure or place used for shelter or protection by such a species; and disturb any protected species occupying such a structure or place.

Three invertebrates are listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017, fisher's estuarine moth *Gortyna borelii lunata*, the large blue butterfly *Maculinea arion* and lesser whirlpool ram's-horn snail *Anisus vorticulus*. It is an offence deliberately to kill, capture, or disturb a listed species, or to damage or destroy the breeding site or resting place of such an animal.

Amphibians

There are four widespread amphibian species, common frog *Rana temporaria*, common toad *Bufo bufo*, palmate newt *Lissotriton helveticus* and smooth newt *Lissotriton vulgaris*. All of the four widespread species receive partial protection under Schedule 5 of the Wildlife and Countryside Act (1981, as amended) making it an offence to offer them for sale or trade.

Great crested newts *Triturus cristatus* and natterjack toads *Epidalea calamita* are fully protected under Schedule 5 (in respect of section 9(4)(b) and (c) and (5) only) of the Wildlife and Countryside Act (1981, as amended) and the Conservation of Habitats and Species Regulations 2017. Reintroduced populations of 'native' pool frogs *Pelophylax lessonae* also receive the same protection. It is illegal to possess a protected species (alive or dead), deliberately capture, injure or kill, to intentionally or recklessly disturb, or to deliberately take or destroy the eggs of these protected species. It is also illegal to damage, destroy or intentionally or recklessly obstruct access to breeding or resting place

used by these protected species'. All life stages of each species' are afforded the same level of protection.

In order to undertake any activity, which would, otherwise result in any of the above offences being committed, it may be necessary to obtain a European Protected Species (EPS) licence from the relevant statutory body (Natural England (NE), Countryside Council for Wales (CCW) or Scottish natural Heritage (SNH)). It is possible to undertake surveys which would otherwise involve unlawful acts, such as disturbance, by obtaining a survey license which provides authorisation for scientific and educational purposes

Reptiles

The four common reptile species, adder *Vipera berus*, grass snake *Natrix helvatica*, common lizard *Zootoca vivipara* and slow worm *Anguis fragilis* are protected under Schedule 5 of the Wildlife and Countryside Act (1981, as amended) against deliberate and/or intentional killing, injuring and trade.

If common reptile species are found to be present or considered potentially present within a proposed development site. To ensure that no subsequent offence will be committed a precautionary method of working (written by a suitably qualified ecologist) and submitted to the relevant authority may be required to enable works to proceed with limited risks of offences being caused.

Birds

All birds, their nests and eggs are protected by the Wildlife and Countryside Act (1981, as amended). It is an offence to intentionally kill, injure, or take any wild bird, or take or destroy an egg of any wild bird. It is also an offence to damage or destroy the nest of any wild bird (whilst being built, or in use). Therefore, clearance of vegetation within the site boundary, or immediately adjacent to the site during the nesting season could result in an offence occurring under the Act. The bird breeding season can be taken to run between the 1 February and 31 August and is subject to geographical and seasonal factors. There are 79 species of birds listed under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended). It is an offence to 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.

Barn owls *Tyto alba* are listed as 'green' status under the Birds of Conservation Concern (BoCC) and are categorised as a species of European Conservation Concern. The Barn Owl is given the highest level of legal protection possible under Schedule 1 of the Wildlife and Countryside Act 1981. It is therefore illegal to kill, injure or take a barn owl, or to take or destroy its eggs. It is also illegal to intentionally or recklessly take, damage, or destroy the nest of any wild bird while it is in use or being built, release or allow the escape of a barn owl into the wild or possess any bird (dead or alive) or part of bird without a licence which is obtainable through the country agencies (EN, SNH, and CCW).

Badgers

Badgers *Meles meles* are protected under the Protection of Badgers Act (1992) and the Wildlife and Countryside Act (1981, as amended). As such it is an offence to wilfully take, kill, injure or ill–treat a badger, or possess a dead badger or any part of a badger. Under

the Act their setts are also protected against obstruction, destruction, or damage in any part.

Sett interference includes damaging or destroying a sett, obstructing access to a sett, and disturbing a badger whilst it is occupying a sett. The Act defines a badger sett as 'any structure or place, which displays signs indicating the current use by a badger' and Natural England takes this definition to include seasonally used setts.

Work that may disturb badgers or their setts is illegal without a development licence from the relevant statutory body (NE, CCW, SNH). As a precautionary principle, a buffer distance between a badger sett and the works will be determined, based upon guidance from an appropriately experienced ecologist. This buffer distance should be based upon the size and activity levels at the sett, the topography between the sett and the works and the nature of the works.

Bats

All native UK bat species are fully protected by UK law under Schedule 5 (in respect of section 9(4)(b) and (c) and (5) only) and Schedule 6 of the Wildlife and Countryside Act (1981, as amended), and under Schedule 2 of the Conservation of Habitats and Species Regulations 2017. It is illegal to deliberately capture, injure or kill a bat or to intentionally or recklessly disturb bats. It is also illegal to damage, destroy or intentionally or recklessly obstruct access to a breeding or resting place used by a bat.

Any activity that would result in a contravention of the above legislation would likely require an EPS licence from the relevant statutory body (NE, CCW or SNH). Works or mitigation activities involving interference with bats or bat shelters must be carried out by a licensed bat worker.

Dormice

Dormice *Muscardinus avellanarius* are protected under Schedule 5 (in respect of section 9(4)(b) and (c) and (5) only) of the Wildlife and Countryside Act (1981, as amended) and are listed in Schedule 2 of the Conservation of Habitats and Species Regulations 2017. Under the current legislation it is illegal to intentionally or deliberately kill, injure or capture dormice, deliberately disturb dormice (whether in a nest or not); or to damage, or destroy dormouse breeding sites or resting places.

Any activity that would result in a contravention of the above legislation would likely require an EPS licence from the relevant statutory body (NE, CCW or SNH).

Otters

The otter *Lutra lutra* is fully protected under Schedule 5 (in respect of section 9(4)(b) and (c) and (5) only) of the Wildlife and Countryside Act (1981, as amended) and are listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2017. It is therefore illegal to deliberately capture, injure or kill an otter, possess an otter (dead or alive), or any other part of an otter, or intentionally or recklessly disturb otters. It is also illegal to damage, destroy or intentionally or recklessly obstruct access to a holt or other resting place used by an otter.

Any activity that would result in a contravention of the above legislation would likely require an EPS licence from the relevant statutory body (NE, CCW or SNH).

Water voles

Water voles *Arvicola amphibious* are protected under Schedule 5 of the Wildlife and Countryside Act (1981, as amended). It is an offence to possess, control or sell water voles or to intentionally kill, injure or take water voles. It is also an offence to intentionally or recklessly damage, destroy or obstruct access to a place that water voles use for shelter or protection or disturb water voles whilst using such a place.

A licence is required for catching/handling water voles, or for field surveys that are intrusive or disturbing where the surveyor suspects' water voles are present. A licence can be obtained by applying to the relevant statutory body (NE, SNH, and CCW,). Please note that the legislation does not permit licences to be issued in relation to development of land.

Biodiversity Policies

National Planning Policy Framework (NPPF) 2019

Published in 2019 the NPPF sets out the Government's planning policies for England and how these are expected to be applied by local authorities. It replaces all the Planning Policy Statements and Guidance (PPSs and PPGs). The NPPF emphasises the need for sustainable development, whilst specifying the need for protection of designated sites and priority habitats and priority species (as listed in section 41 of the Natural Environment and Rural Communities (NERC) Act 2006). Paragraph 170 of The National Planning Policy Framework (NPPF) states:

"Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;
c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
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;
e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate."

Paragraph 174 states that "to protect and enhance biodiversity and geodiversity, plans should:

a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity56; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation57; and
b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity."

Furthermore, paragraph 175 states that when determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

a) 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;
b) 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;
c) 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 reasons58 and a suitable compensation strategy exists; and
d) development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

Paragraph 176 states:
"The following should be given the same protection as habitats sites:

a) potential Special Protection Areas and possible Special Areas of Conservation;
b) listed or proposed Ramsar sites59; and
c) 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."

Paragraph 177 states:
"The presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site is being planned or determined."

<u>The UK Biodiversity Framework (2011-2020).</u>

The UK Biodiversity Framework is an important framework that is owned, governed and implemented by the four UK countries, assisted by Defra and JNCC in their UK co-ordination capacities. Although differing in details and approach, the four UK countries have published strategies which promote the same principles and address the same global targets: joining-up our approach to biodiversity across sectors; and identifying, valuing and protecting our 'Natural Capital' to protect national well-being now and in the future. This new framework has been developed to enhance the recovery of priority habitats and species in England (published under section 41 of the NERC Act 2006), thereby contributing to the delivery of the England Biodiversity Strategy. The framework has been developed and endorsed by the England Biodiversity Group and wider partnership. It is the starting point for a more integrated approach to biodiversity conservation in England, building on the strengths of the former UK Biodiversity Action Plan (BAP) process and improving those areas where insufficient progress was being made.

Lewes District Local Plan Part 1 Joint Core Strategy 2010-2030

Core Policy 10 – Natural Environment and Landscape Character

1. The natural environment of the district, including landscape assets, biodiversity, geodiversity, priority habitats and species and statutory and locally designated sites, will be conserved and enhanced by:

   i. Maintaining and where possible enhancing the natural, locally distinctive and heritage landscape qualities and characteristics of the district including hedgerows, ancient woodland and shaws, as informed by the East Sussex County Landscape Assessment and the Lewes District Landscape Capacity Study;

   ii. Ensuring that new development will not harm nature conservation interests, unless the benefits of development at that location clearly outweigh the harm caused. In such cases appropriate mitigation and compensation will be required;

   iii. Maintaining and where possible enhancing local biodiversity resources including through maintaining and improving wildlife corridors, ecological networks and avoiding habitat fragmentation in both rural and urban areas;

   iv. Working with neighbouring local authorities to contribute to the delivery of biodiversity improvements within the South Downs Way Ahead Nature Improvement Area and the Brighton and Lewes Downs Biosphere Project, as well as other projects and partnerships that are established during the plan period.

2. The highest priority will be given to the first purpose of the South Downs National Park and the integrity of European designated sites (SACs and SPAs) in and around Lewes District. Within and in the setting of the South Downs National Park, development will be resisted if it fails to conserve and appropriately enhance its rural, urban and historic landscape qualities, and its natural and scenic beauty, as informed by the South Downs Integrated Landscape Character Assessment.

3. To ensure that the Ashdown Forest (SAC and SPA) is protected from recreational pressure, residential development that results in a net increase of one or more dwellings within 7km of the Ashdown Forest will be required to contribute to:

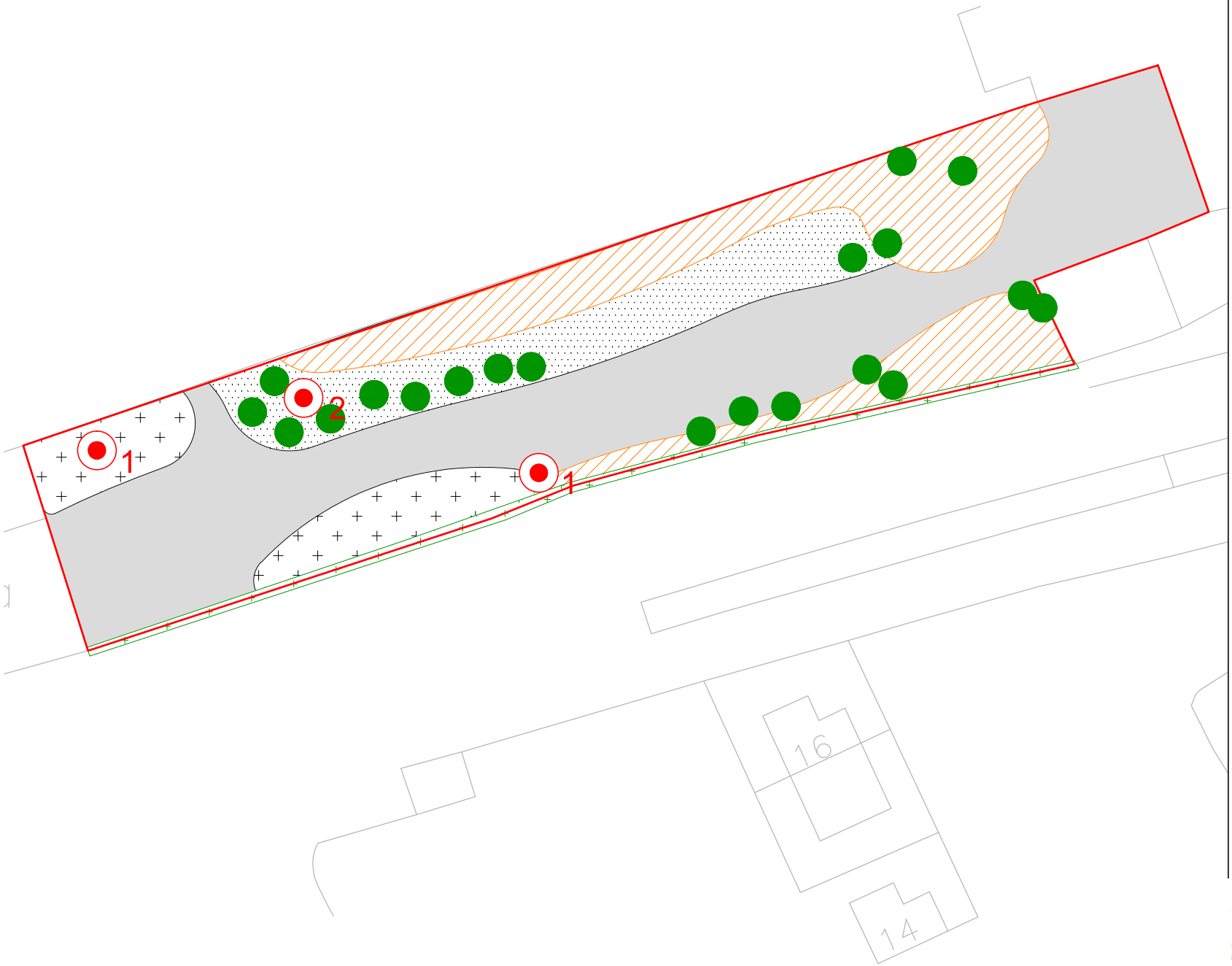
i. The provision of Suitable Alternative Natural Greenspaces (SANGs) at the ratio of 8 hectares per additional 1,000 residents; and

ii. The implementation of an Ashdown Forest Strategic Access Management and Monitoring Strategy (SAMMS). Until such a time that appropriate mitigation is delivered, development that results in a net increase of one or more dwellings within 7km of Ashdown Forest will be resisted. Applicants may consider mitigation solutions other than SANGs in order to

bring forward residential development. Such solutions would need to be agreed with the District Council and Natural England.

4. Ensure that water quality is improved where necessary or maintained when appropriate (including during any construction process) and that watercourses (including groundwater flows) are protected from encroachment and adverse impacts in line with the objectives of the South East River Basin Management Plan. Where appropriate, the local planning authority will seek the enhancement and restoration of modified watercourses.

5.2 APPENDIX II: PHASE 1 HABITAT MAP



Key:

- Scattered Scrub
- Scattered Trees
- Hardstanding
- Bare Ground
- Tall Ruderal
- Ephemeral/Short Perennial
- Target Note (reference) 1
- Site Boundary

Drawing should be viewed in colour

All locations are indicative and have been plotted to best of surveyors ability using plans provided and aerial imaging

Drawing No.: PJC/4148E/19 **Rev:** 01 **Sheet number:** 1 of 1

Client : Harrington Lettings

Project :
Land at Glynde Station
Glynde
East Sussex

Drawing title: Phase 1 Habitat Map

Date drawn: 01.08.2019

Scale: NTS

Drawn by: TH **Checked by:** TK

PJC Consultancy
Arboricultural, Ecological & Landscape Consultancy

Sussex
Chapter House, Priesthawes Farm, Hailsham Road, Polegate, East Sussex, BN26 6QU.
t: 01323 832120

Kent
Unit 1, Hanover Mill, Mersham, Ashford, Kent TN25 6NU.
t: 01233 225365
w: www.pjcconsultancy.com

5.3 APPENDIX III: SITE PHOTOS

Photograph 1: Entrance of the Site facing west. Taken by Tara Hall 4.7.19