

PRELIMINARY ECOLOGICAL APPRAISAL

**Knivesborough
Littlehampton Road
Ferring**

**West Sussex
BN12 6PN**

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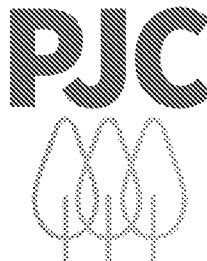
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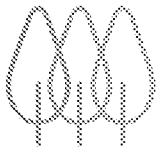
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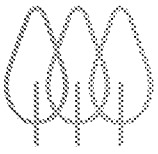


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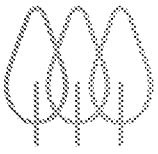


1 EXECUTIVE SUMMARY

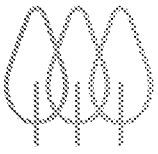
PJC Consultancy Ltd was commissioned by Liberato Dichello to provide a Preliminary Ecological Appraisal for a parcel of land at Knivesborough, Littlehampton Road, Ferring, West Sussex, BN12 6PN. The purpose was to classify the habitats present, highlight the potential of the site to support protected species, and recommend suitable avoidance, mitigation, compensation and ecological enhancement measures 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 National Planning Policy Framework NPPF (2023) – more specifically Chapter 15 ‘Conserving and Enhancing the Natural Environment’ as well as the Arun Local Plan (Arun District Council, 2018).

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 (Foraging and Commuting)	The Site was identified as having habitat suitability to support commuting and foraging bats.	None required providing the mitigation measures are adhered to.	A sensitive lighting strategy should be implemented throughout the construction and operational phases of the development.
Badgers	The Site was considered to provide some limited foraging and commuting opportunities for badgers.	A pre-works survey should be undertaken immediately prior to any construction works commencing to ensure no new setts have become established within a 30m radius of the Site.	Further requirements for mitigation, compensation and/or licences may be required for badgers depending on the results of the recommended further surveys. Any required excavations should be excavated individually and backfilled immediately after to avoid animals becoming trapped. All chemicals onsite should be stored correctly and be made inaccessible to badgers.
Great Crested Newts (GCN)	A single waterbody was identified on Site. The Site was identified as having some limited potential to support GCN during their terrestrial lifecycle phase.	None required providing the avoidance and mitigation measures are adhered to.	Waterbody drainage and habitat clearance works should be carried out under a Precautionary Non-Licensed Method Statement.
Reptiles	The Site was identified as having	None required providing the	All habitat clearance works should be carried out under a



	some potential to support reptiles foraging, commuting, basking and hibernating opportunities.	limited providing	avoidance mitigation measures adhered to.	and are	Precautionary Non-Licensed Method Statement.
Nesting Birds	The Site was identified as having potential to support nesting birds.		None required providing the avoidance and mitigation measures are adhered to.		Habitat clearance works should be undertaken outside the main nesting bird season (March-September inclusive). 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.



2 INTRODUCTION

2.1 Instruction

2.1.1 PJC Consultancy Ltd was commissioned by Liberato Dichello to provide a preliminary ecological appraisal (PEA) which includes an extended phase 1 habitat survey, a preliminary bat roost assessment (PBRA), and a great crested newt (GCN) *Triturus cristatus* habitat suitability index (HSI) assessment of a parcel of land at Knivesborough, Littlehampton Road, Ferring, West Sussex, BN12 6PN (hereafter referred to as the 'Site').

2.2 Survey Objectives

2.2.1 The aim of this PEA is to identify potential ecological constraints and opportunities associated with the Site by undertaking an extended phase 1 habitat survey, ecological desk study, PBRA, and GCN HSI assessment. 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;
- Assess the waterbodies within the Site and/or within a 250m radius of the Site boundary for suitability to support breeding GCN;
- 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.

2.3 Documents and Information Provided

2.3.1 The following documents were used to aid the preparation of this report:

- Topographical Survey ref: 014.05.22.001 (SeSurveying, 2022); and
- Arboricultural Survey ref: PJC/6399/23-01 (PJC Consultancy Ltd, 2023).

2.4 Scope of Report

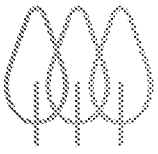
2.4.1 This PEA is only concerned with the habitats and features within the property boundaries of the Site, or in areas that have the potential to be affected by the proposed new development.

2.5 Proposal

2.5.1 The current proposal is for the construction of three detached residential dwellings with associated access and gardens.

2.6 Site Description

2.6.1 The Site, approximately 0.14ha in size, is located within an urban setting in the coastal town of Ferring, East Sussex (centred on OS Grid Reference TQ 08924 03238). The surrounding land use predominantly comprises of residential dwellings, with a large garden centre to the west, a small recreational park to the bordering the northern boundary, and a small overgrown parcel of grassland to the south of the Site. The wider landscape comprises residential dwellings with associated roads and gardens, as well as agricultural fields to north and west. The location of the Site within its environs is presented in Appendix I.

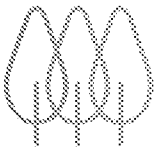


2.7 Legislation and Planning Policy

2.7.1 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 II.

2.7.2 The key articles of relevance are:

- The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019;
- 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) 2023 (Ministry of Housing, Communities and Local Government, 2021);
- The Protection of Badgers Act 1992;
- The UK Post-2010 Biodiversity Framework (2011-2020); and
- Arun Local Plan (Arun District Council, 2018).



3 METHODOLOGY

3.1 Desk Study

- 3.1.1 A desk study was undertaken in September 2023 with the objective of collating and reviewing existing ecological information, and obtaining data and information held by relevant third parties.
- 3.1.2 In addition, datasets from Natural England (MAGIC, 2023) 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) listed on the priority habitat inventory and statutory designated sites for their nature conservation value at the national scale such as sites of scientific interest (SSSI) and 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’.
- 3.1.3 Furthermore, Google Earth aerial imagery was reviewed to assess habitats within the Site and wider environment.
- 3.1.4 Data for sites within the zone of influence where European Protected Species Mitigation (EPSM) licences have been granted, were also reviewed. This information allows a greater understanding of the potential for European protected species to be present in the local area.
- 3.1.5 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.

3.2 Extended Phase 1 Habitat Survey

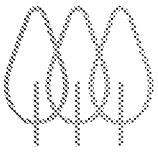
- 3.2.1 An extended phase 1 habitat survey was undertaken on the 19th September 2023 by Naomi Cornwell BSc(Hons) MSc following the standard ‘Phase 1 Habitat survey’ auditing method developed by the Joint Nature Conservancy Council (JNCC, 2010) and extended to include consideration of protected species 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 III). 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.

3.3 Preliminary Bat Roost Assessment

- 3.3.1 All buildings and trees within the Site were also subject to a preliminary bat roost assessment (PBRA). The external inspection of the buildings and ground inspection of trees was to assess potential roosting features (PRFs) such as those presented in Tables 1 and 2. The PBRA was undertaken in accordance with best practice survey standards (BCT, 2016 and BTHK, 2018).

Table 1: Features of trees commonly used by bats.

Features of trees used as bat roosts	Signs indicating possible use by bats
Natural holes.	Tiny scratches around entry point.
Woodpecker holes.	Staining around entry point.
Cracks/splits in major limbs.	Bat droppings in, around or below entrance.
Loose bark.	Audible squeaking at dusk or in warm weather.



Hollows/cavities.	Flies around entry point.
Dense epicormic growth (bats may roost within it).	Distinctive smell of bats.
Bird and bat boxes.	Smoothing of surfaces around cavity.

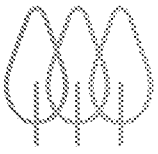
Table 2: Features of buildings commonly used by bats.

Features of building or built structure	Signs indicating possible use by bats
Type of building.	Tiny scratches around entry point.
Age of building.	Staining around entry point.
Aspect of PRF.	Bat droppings in, around or below entry point.
Wall construction – cavity walls or rubble-filled walls.	Feeding remains below entry point.
Form of the roof – presence of gable ends, hipped roofs, nature and condition of the roof covering.	Cobweb free potential entry points.
Presence of hanging tiles, weather boarding or other forms of cladding.	Audible squeaking at dusk or in warm weather.
Nature of the eaves – sealed by a soffit or boxed eave and tightness of fit to exterior walls.	Flies around entry point.
Presence and condition of lead flashing.	Distinctive smell of bats.
Gaps under eaves, around windows, under tiles, lead flashing.	Smoothing of surfaces around entry point.
Presence and type of roof lining.	
Presence on roof insulation.	

3.3.2 The buildings and trees were assessed in accordance with the criteria listed above and assigned to one of five categories as listed in Table 3 below.

Table 3: Categorisation system for visual inspection of structures and trees.

Category	Description
Confirmed roost	Bats discovered roosting within structure or tree or recorded emerging from/entering structure or tree at dusk and/or dawn. Structure or 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 structure or 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 structure or 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 structure with one or more potential roost sites that could be used by individual bats opportunistically. However, these potential roost sites do not provide enough space, shelter, protection, appropriate conditions and/or suitable surrounding habitat to be used on a regular basis or by larger numbers of bats. 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 structure or tree with no features capable of supporting roosting bats.

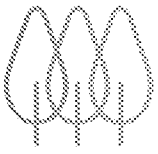
3.4 Great Crested Newt Habitat Suitability Index Assessment

- 3.4.1 A single waterbody was identified within the Site (WB1) and two waterbodies were identified within a 500m radius of the Site (WB2 and WB3) as part of the desk study, the closest of which was located approximately 480m south-west of the Site, and not considered to be connected to the Site via any suitable terrestrial habitat.
- 3.4.2 Waterbody WB1 within the Site was subject to a habitat suitability index (HSI) assessment and terrestrial habitat assessment during the extended phase 1 habitat survey by Naomi Cornwell BSc(Hons) MSc on 19th September 2023.
- 3.4.3 An HSI is a tool that enables an assessment of the likelihood of a waterbody to support GCN. It incorporates 10 suitability indices (SI), all of which are factors thought to affect GCN, as detailed in Table 4 below.

Table 4: HSI Suitability Indices.

Suitability Indices	Description
SI ₁	Geographic location
SI ₂	Pond area
SI ₃	Permanence
SI ₄	Water quality
SI ₅	Shade
SI ₆	Waterfowl
SI ₇	Fish
SI ₈	Pond count
SI ₉	Terrestrial habitat
SI ₁₀	Macrophytes

- 3.4.4 Each variable is assessed separately and then mathematically combined in the following formula, HSI = (SI₁*SI₂*SI₃*SI₄*SI₅*SI₆*SI₇*SI₈*SI₉*SI₁₀)^{1/10} to provide the geometric mean, which is a numerical



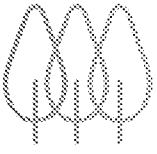
index between 0 and 1. A lower score indicates a less suitable habitat whereas a higher score represents optimal conditions favourable for GCN as detailed in Table 5 below. There is a positive correlation between the scores and the resulting incidence of GCN observed in ponds. However, whilst the HSI can be used to help inform the likelihood of presence or absence it is not sufficiently precise to allow conclusion that a higher score confirms presence and likewise a lower score absence. HSI is therefore used as a guide to help determine the need for further GCN surveys.

Table 5: Categorisation of HSI Scores.

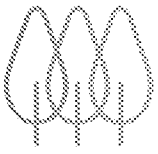
HSI	Pond Suitability
<0.5	Poor
0.5-0.59	Below Average
0.6-0.69	Average
0.7-0.79	Good
>0.8	Excellent

3.5 Limitations of Survey

- 3.5.1 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.
- 3.5.2 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.
- 3.5.3 A full biological record centre desktop study was not undertaken as part of this assessment. This was not considered necessary given the limited scale of the proposed development, the nature of the on-site and surrounding habitats and limited potential for impacts to arise within or outside of the Site.
- 3.5.4 Full access to buildings B1-B3 was not feasible during the survey due to access restrictions, however, buildings B1-B3 were understood not to have any void space present internally.
- 3.5.5 This report includes a preliminary assessment of likely impacts of a development project only. The primary audience for a PEA is the client or developer and relevant members of the project team, such as the architect, planning consultant, and landscape architect. It is normally produced to inform a developer (or other client), and their design team, about the key ecological constraints and opportunities associated with a project, possible mitigation requirements and any detailed further surveys required. Under normal circumstances, it is not considered appropriate to submit a PEA in support of a planning application because the scope of a PEA is unlikely to fully meet planning authority requirements in respect of biodiversity policy and implications for protected species. In most cases, particularly when further surveys have been recommended within the PEA, a more detailed and comprehensive Ecological Impact Assessment (EclA) should be submitted in support of a planning application instead.
- 3.5.6 This document has been prepared for the stated proposal (2.5.1) 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.



4 RESULTS

4.1 Desk Study

Statutory Designated Sites

- 4.1.1 No statutory designated sites of nature conservation importance were identified within the zone of influence as part of the desk study.

Protected and Notable Habitats

- 4.1.2 No parcels of ancient woodland listed on the ancient woodland inventory were identified within the zone of influence as part of the desk study.
- 4.1.3 Multiple parcels of HPI listed on the priority habitat inventory were identified within the zone of influence as part of the desk study. These habitats included broadly classified deciduous woodland, lowland calcareous grassland, and traditional orchard.
- 4.1.4 The closest parcel of HPI was an area of broadly classified deciduous woodland located approximately 900m north of the Site.

Protected and Notable Species

- 4.1.5 A single EPSM licence previously granted by Natural England pertaining to protected species was identified within the zone of influence as part of the desk study (MAGIC, 2023). The licence was granted for the destruction of a common pipistrelle *Pipistrellus pipistrellus* bat resting place (likely summer day roost), located approximately 870m south of the Site (valid between 2020-2026).

4.2 Extended Phase 1 Habitat Survey

- 4.2.1 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 III, together with Site photographs, which are presented in Appendix IV.

Scattered mixed trees (A3.3)

- 4.2.2 A treeline of mature Monterey cypress trees was recorded immediately adjacent to the western Site boundary. Multiple apple *Malus* sp. trees and non-native *Cordyline* sp. palms were also recorded dotted around the Site.

Marginal vegetation (F2.1)

- 4.2.3 Sparse marginal vegetation surrounding WB1 was recorded and comprised predominantly drooping sedge *Carex pendula*.

Standing water (G1)

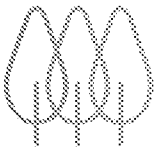
- 4.2.4 A single waterbody, WB1, was recorded within the central southern aspect of the Site. The waterbody was a manmade lined pond, with thick pond weed *Milfoil* sp. growth and a small patch of water lily *Nymphaeaceae* sp. also present.

Amenity grassland (J1.2)

- 4.2.5 The Site predominantly comprised grassland of a short sward (5cm) indicative of a frequent mowing regime. Species recorded included perennial ryegrass *Lolium perenne*, daisy *Bellis perennis*, dandelion *Taraxacum officinale*, buttercup *Ranunculus* sp., and white clover *Trifolium repens*.

Introduced shrub (J1.4)

- 4.2.6 The parcel of grass was bordered by a margin of introduced shrub planted within well-weeded, bare earth. Species included Japanese laurel *Aucuba japonica*, butterfly bush *Buddleja davidii*, and windmill palm *Trachycarpus fortunei*.



Buildings (J3.6)

- 4.2.7 Three buildings were recorded within the Site boundary. Full descriptions of the buildings can be found in Table 6 below.

Hardstanding (J5)

- 4.2.8 Hardstanding was recorded through much of the Site and was comprised predominantly of gravel.

Target note 1 (TN1)

- 4.2.9 The approximate location of a compost heap.

4.3 Preliminary Bat Roost Assessment

- 4.3.1 A description of the buildings and trees and any potential roosting features (PRF) are detailed in Tables 6 and 7 below:

Table 6: PBRA results of buildings within the Site.

B1

External Description

A single storey cabin used for storage comprised of painted timber in good condition and well-sealed. The building supported a pitched bitumen felt roof in good condition and well-sealed. The western elevation supported timber framed glass window and door, both of which were well-sealed.

Evidence of Bats

None recorded at the time of the assessment.

Potential Roost Features

None recorded at the time of the assessment.

Suitability to Support Roosting Bats

Negligible.

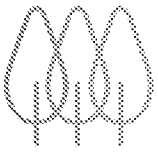
B2

External Description

A single storey annex building, comprised of painted timber cladding in good condition and well-sealed. The building supported a pitched corrugated metal roof in good condition and well-sealed. The building supported multiple uPVC windows on all elevations, which were well-sealed. No roof void was present. The building supported barge boards at the gable ends which were well-sealed and flush with the timber cladding.

Evidence of Bats

None recorded at the time of the assessment.



Potential Roost Features

None recorded at the time of the assessment.

Suitability to Support Roosting Bats

Negligible.

B3

External Description

A single storey garden shed comprised of timber cladding in good condition and well-sealed. The shed presented a flat bitumen felt roof in good condition and well-sealed.

Evidence of Bats

None recorded at the time of the assessment.

Potential Roost Features

None recorded at the time of the assessment.

Suitability to Support Roosting Bats

Negligible.

Table 7: PBRA results of trees within or immediately adjacent the Site.

All trees

Evidence of Bats

None recorded at the time of the assessment.

Potential Roost Features

None recorded at the time of the assessment.

Suitability to Support Roosting Bats

Negligible.

4.4 GCN HSI Assessment

4.4.1 A summary of the HSI results is presented in Table 8 below.

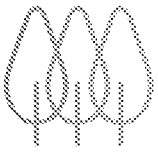
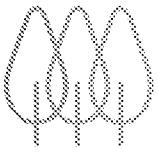


Table 8: Summary of HSI Results.

Suitability Indices	HSI Score
Location	1
Pond Area	0.2
Pond Drying	1
Water Quality	0.67
Shade	1
Fowl	0.67
Fish	0.67
Ponds	0.1
Terrestrial Habitat	0.33
Macrophytes	0.4
Overall Score	0.49 – “Poor”



5 DISCUSSION AND RECOMMENDATIONS

5.1 Statutory Designated Sites

5.1.1 No statutory designated sites of nature conservation importance were identified within the zone of influence as part of the desk study. On this basis, no adverse impacts are anticipated on statutory designated sites and their qualifying criteria for designation as a result of the proposed development and are therefore not considered an ecological constraint and are not considered further in this report.

5.2 Protected and Notable Habitats

5.2.1 No parcels of ancient woodland listed on the ancient woodland inventory were identified within the zone of influence as part of the desk study.

5.2.2 Multiple parcels of HPI listed on the priority habitat inventory were identified within the zone of influence as part of the desk study. The closest parcel of HPI was an area of broadly classified deciduous woodland located approximately 900m north of the Site.

5.2.3 Given the distance between the Site and the nearest parcel of HPI and given the size of the Site and nature of the proposed development, adverse effects upon these protected and notable habitats are not considered likely. Protected and notable habitats are therefore not considered an ecological constraint and are not considered further in this report.

5.3 Protected and Notable Species

5.3.1 The Site was considered to provide opportunities for protected and notable species. The suitability of habitat on Site to support species is considered below.

Bats

5.3.2 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 2019 (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.

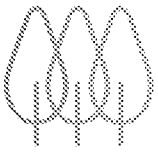
5.3.3 A single EPSM licence previously granted by Natural England granted for the destruction of a common pipistrelle bat resting place (likely summer day roost), located approximately 870m south of the Site (valid between 2020-2026), was identified within the zone of influence as part of the desk study (MAGIC, 2023).

5.3.4 As part of the PBRA, all buildings and trees within the Site were identified as having negligible suitability to support roosting bats and therefore roosting bats are highly likely absent from the buildings and trees. Roosting bats are therefore not considered an ecological constraint and are not considered further in this report.

5.3.5 The Site was considered to provide suitable commuting and foraging habitat for bats primarily the scattered trees. However, these features are not considered to function as an important corridor for bats given the isolation of the Site within a highly urbanised environment.

5.3.6 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. 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;

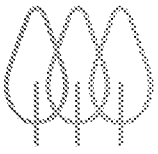
- Lighting should be a warm white spectrum and feature peak wavelengths higher than 550nm to lower the range of species affected by lighting. Using LED luminaires where possible and avoid luminaires with UV elements, specifically avoiding metal halide and fluorescent sources (Institute of Lighting Professionals, 2023); and
- Internal luminaires can be recessed where installed in proximity to windows to reduce glare (Institute of Lighting Professionals, 2023) 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.

Hazel Dormice

- 5.3.7 Hazel dormice *Muscardinus avellanarius* are EPS and are afforded protection under the Conservation of Habitats and Species Regulations 2019 (as amended) and the Wildlife and Countryside Act, 1981 (as amended). Dormice are also listed as SPI under the NERC Act 2006.
- 5.3.8 The Site was considered to provide very limited suitable semi-natural habitat for dormice given the isolation of the Site within a highly urbanised environment and absence of preferred floral species (such as hazel *Corylus avellana* and honeysuckle *Lonicera periclymenum*).
- 5.3.9 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

- 5.3.10 GCN are EPS and are afforded protection under the Conservation of Habitats and Species Regulations 2019 (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.
- 5.3.11 A single waterbody, WB1, was identified within the Site, and three waterbodies were identified within a 500m radius of the Site. A GCN HSI assessment was undertaken on waterbody WB1 (Table 8). Overall, waterbody WB1 was identified as being of 'poor' habitat suitability to support breeding GCN.
- 5.3.12 Waterbodies WB2 and WB3 were identified as ponds approximately 480m south-east of the Site and were not considered to be connected to the Site by any suitable terrestrial habitat.
- 5.3.13 The Site supported marginal vegetation, introduced shrub, and to lesser degree grassland of a short sward, which provided some foraging and commuting opportunities for GCN during their terrestrial lifecycle phase.
- 5.3.14 Given that minimal suitable terrestrial habitat was present within the Site and given that potential breeding waterbodies (WB2 and WB3) are 480m from the Site and not connected to the Site via suitable habitat, it is considered highly unlikely that GCN would be present within the Site, and therefore further surveys are not considered necessary.
- 5.3.15 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 minimal suitable terrestrial habitat loss (0.08ha of sub-optimal habitat that is regularly maintained at a short sward length) is to be removed, 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) licence is not required.
- 5.3.16 However, given that the proposed development would require the drainage and filling in of waterbody WB1, it is recommended that construction works (including habitat clearance works) be undertaken in accordance with a Precautionary Non-Licensed Method Statement (see Appendix V).
- 5.3.17 The purpose of the Precautionary Non-Licensed Method Statement is to detail all reasonable avoidance and mitigation measures to be implemented to ensure that there are no detrimental



impacts on the favourable conservation status of GCN and no risk to individual GCN potentially present within the Site as a result of construction activities.

5.3.18 Avoidance and mitigation measures detailed within the Precautionary Non-Licensed Method Statement include but are not limited to the following:

- Ensuring that clearance of waterbody WB1 is undertaken during the autumn/winter season (September to February inclusive) when GCN are not in or around aquatic habitat to breed.
- Ensuring that habitat clearance works are undertaken under the direction and supervision of a suitably qualified and licensed ecologist.

5.3.19 Providing the avoidance and mitigation measures detailed within the Precautionary Non-Licensed Method Statement are implemented in full, the proposed works are considered highly unlikely to adversely affect the favourable conservation status of GCN, or breach relevant nature conservation legislation pertaining to GCN. On this basis, further GCN presence/likely absence surveys and/or a EPSL is not required prior to proposed works commencing.

Reptiles

5.3.20 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.

5.3.21 Habitats recorded within the Site particularly the waterbody, marginal vegetation, introduced shrub, and to lesser degree grassland of a short sward, were considered to provide foraging, commuting, basking and sheltering opportunities for reptiles. In addition, the compost pile (see TN1 in Appendix IV) was considered to provide egg-laying opportunities for reptiles particularly grass snakes.

5.3.22 Given the amount of suitable reptile habitat to be lost is minimal (a maximum of 0.08ha sub-optimal habitat that is regularly maintained at a short sward length) and providing the proposed development will retain habitat connectivity between the Site and adjacent habitat parcel to the south of the Site (also considered suitable for reptiles), it is considered that if reptiles were present within the Site, only a very small number of common and widespread species would be present. Therefore, a full reptile presence/likely absence survey is not considered necessary.

5.3.23 Works associated with any proposed development of the Site, for example habitat clearance, could however result in the death or injury of any reptiles present within the Site. In order to comply with legislation protecting reptiles the mitigation measures detailed below should be adhered to.

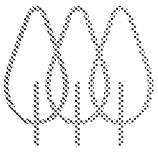
5.3.24 As a precaution, it is therefore recommended that construction works (including habitat clearance works) be undertaken in accordance with a Precautionary Non-Licensed Method Statement (see Appendix VI).

5.3.25 Actions impacting on potential egg-laying features such as compost heaps (target note TN1) should be carried out outside of the egg laying and hatching period (undertaken outside of June to August inclusive). Should this not be possible, the compost heaps must be inspected by an ecologist to ensure no reptiles or eggs are present prior to any action being undertaken.

5.3.26 It is also recommended that prior to the commencement of works, the grassland within the Site is maintained at a short sward to prevent the habitat becoming more suitable for reptiles.

Birds

5.3.27 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.



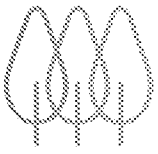
- 5.3.28 The Site supported scattered trees and introduced shrub, which were considered to provide good nesting and foraging opportunities to a wide range of common bird species.
- 5.3.29 Works associated with any proposed development of the Site, for example habitat clearance, could therefore result 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.
- 5.3.30 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).
- 5.3.31 Should this not be possible, all suitable nesting habitat (and buildings if applicable) 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.
- 5.3.32 Please note that as feral pigeons *Columba livia domestica* nest all year round, the destruction of their nests may not be avoidable. Where applicable, a licence to remove an active nest for health and safety purposes may be obtained from Natural England subject to conditions.

Badgers

- 5.3.33 Badgers *Meles meles* and their setts are protected under The Badger Act (1992).
- 5.3.34 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 and within 30m of the Site boundaries during the survey.
- 5.3.35 Habitats throughout the Site were considered to provide very limited sett building and foraging and commuting opportunities for badgers given the
- 5.3.36 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. Badgers are therefore not considered an ecological constraint and are not considered further in this report.

Other Mammal Species

- 5.3.37 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.
- 5.3.38 Otters *Lutra lutra* are protected under the Conservation of Habitats and Species Regulations (2019) 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. Both water voles and otters are also listed as SPI under the NERC Act 2006.
- 5.3.39 Due to the size and isolation from a connected network of waterbodies, waterbody WB1 is considered highly unlikely to support a viable population of water voles and otters. The banks of the waterbody were shallow sided which precludes burrowing and holt creating opportunities. In addition, the waterbody was shallow and lacked sufficient vegetation which would provide appropriate space, cover or seclusion for water voles and otters. Therefore, waterbody WB1 is considered unlikely to support otters and water voles. 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.



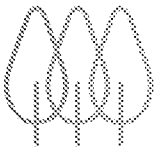
- 5.3.40 The European hedgehog *Erinaceus europaeus* is classified as an SPI under the NERC Act 2006. Therefore, the presence of this species on site would be a material consideration in the planning process.
- 5.3.41 The Site supported some suitable semi-natural habitat for hedgehogs such as introduced shrub. 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 and providing mitigation measures detailed below are adhered to.
- 5.3.42 Hedgehogs should be specifically watched for during the removal of features considered to provide potential sheltering habitat (i.e. introduced shrub). If any hedgehogs are found, they should be carefully moved to retained areas of vegetation outside of the Site.
- 5.3.43 Furthermore, any new boundaries required as part of the proposed development should be permeable to hedgehogs in order to maintain habitat connectivity across the Site and wider surroundings. This can be achieved by creating ground-level boundary holes (approximately 13cm x 13cm) which should link as many neighbouring land parcels as possible.
- 5.3.44 In addition, parcels of dense scrub, shrubs and tussocky grassland and features such as deadwood and brush piles should be maintained and/or created across the Site in order to provide important foraging and nesting opportunities for hedgehogs.

Invertebrates

- 5.3.45 A number of invertebrate species such as stag beetles *Lucanus cervus* are afforded protection under the Conservation of Habitats and Species Regulations 2019 (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.
- 5.3.46 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).
- 5.3.47 Due to the size and isolation from a connected network of waterbodies, waterbody WB1 was considered to be highly unlikely to support a viable population of white-clawed crayfish due to the lack of overhanging banks, rocks and boulders for refuge. On this basis, the Site was identified as having negligible potential to support white-clawed crayfish and are therefore not considered an ecological constraint and are not considered further in this report.
- 5.3.48 All other protected invertebrate species listed on Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended) are considered likely absent from the Site as their preferred food plants were considered to be either likely absent or not recorded in sufficient quantity to otherwise support a viable population.
- 5.3.49 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

- 5.3.50 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 2019 (as amended). Many plant species are also listed as SPI under the NERC Act 2006.
- 5.3.51 The habitats on Site were common and widespread and therefore provided limited potential to support protected and notable and rare plant species.



- 5.3.52 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*.
- 5.3.53 No Schedule 9 non-native invasive plant species were recorded within the Site.
- 5.3.54 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.

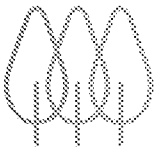
5.4 Ecological Enhancements

5.4.1 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 (2021) and the Arun Local Plan (Arun District Council, 2018) encourages ecological enhancement to be integrated into development projects in order to achieve an overall net-gain in biodiversity. Given the above, the following enhancement recommendations should be considered and incorporated into the final design proposals:

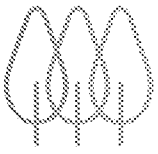
- Installation and maintenance of artificial bat bricks or bat tubes (i.e. Schwegler 1FR and 2FR bat tubes and Schwegler 1GS bat brick or similar) into any new buildings and installation of bat boxes (i.e. Schwegler 2FN or similar) on to suitable retained trees to increase the roosting opportunities for bats within the Site. Any artificial roosting features should be placed between 3m and 6m above ground in a variety of locations at slightly different heights and preferably positioned facing a southerly or south-easterly direction.
- Installation and maintenance of artificial bird nest boxes onto any retained trees and new buildings on Site to increase nesting opportunities for many bird species. Given their designation as SPI, particular consideration should be given to installing house sparrow *Passer domesticus* (i.e. Schwegler 1SP or similar) and starling *Sturnus vulgaris* (i.e. Schwegler 3S or similar) nest boxes onto any retained trees and any new buildings within the Site.
- Incorporation of dead wood habitat piles within areas of retained suitable habitat for example underneath tree canopies and along pond margins. These are used by both invertebrates such as the stag beetle which is a SPI and by reptiles and widespread amphibians as refugia.
- Incorporation of a 'Bee Brick' into the new building(s). The Bee Brick should be positioned facing a southerly direction, in an area that receives a lot of light and warmth throughout the day and without vegetational obstruction to the entrances. It is recommended that for every Bee Brick installed, a minimum of 1m² of 'bee friendly' plant species be planted to support any solitary bees that would likely utilise the feature. The plant species could include:
 - Common yarrow *Achillea millefolium*;
 - Greater knapweed *Centaurea scabiosa*;
 - Common foxglove *Digitalis purpurea*;
 - Hemp agrimony *Eupatorium cannabinum*;
 - Common honeysuckle *Lonicera periclymenum*;
 - Wild marjoram *Origanum vulgare*; and
 - Guelder rose *Viburnum opulus*.

5.5 Biodiversity Net Gain

5.5.1 Biodiversity Net Gain is an approach to development that leaves biodiversity in a better state than before. The UK government's 25-year environment plan is focused on achieving Biodiversity Net Gain through development and the new Environment Bill will mandate a measurable 10% Biodiversity Net Gain for most new developments in England.



- 5.5.2 The enhancement recommendations detailed above provide a qualitative opinion-based assessment of how the development can achieve an overall net gain in biodiversity.
- 5.5.3 Biodiversity Net Gain is a move away from an opinion-based assessment to a more quantitative, measurable and transparent based assessment using the DEFRA biodiversity metric tool to quantify biodiversity losses and gains in terms of 'biodiversity units'. The DEFRA biodiversity metric tool can be used to calculate the ecological baseline value of a site pre-development and the predicted ecological value of a site post-development using detailed design proposals.
- 5.5.4 The NPPF (2023) sets out the Government's planning policies for England and places a responsibility on local planning authorities to identify and pursue opportunities for securing measurable gains for biodiversity when determining planning applications, likely through planning policies and decisions.
- 5.5.5 It should be noted that the Site currently supports habitats of high distinctiveness in the form of scattered trees. Therefore, following the mitigation hierarchy, these habitats should be retained and enhanced where possible. Any loss of these habitats will require compensation on a like-for-like or like-for-better basis and will likely require the creation of habitat parcels on a larger scale than the ones to be lost.
- 5.5.6 Please note that a detailed Biodiversity Net Gain assessment is not included as part of this PEA report, and that some local planning authorities have already adopted internal policies requiring new developments to deliver Biodiversity Net Gain as part of the planning process. It is likely that Biodiversity Net Gain will soon be adopted by all local planning authorities in England over the coming months.



6 REFERENCES

Amphibian and Reptile Group (2010). ARG UK Advice Note 5. Great Crested Newt Habitat Suitability Index.

Arun District Council (2018). Local Plan. [PDF] Available from: <https://www.arun.gov.uk/download.cfm?doc=docm93ijm4n12844.pdf&ver=12984>

Bat Tree Habitat Key (BTHK) (2018). Bat Roosts in Trees – A Guide to Identification and Assessment for Tree-Care and Ecology Professionals. Exeter

British Standards Institution (2013). Biodiversity. Code of practice for planning and development: 42020. BSI, London.

Chartered Institute for Ecology and Environmental Management (2017). Guidelines for Preliminary Ecological Appraisal. CIEEM. Available from: <https://cieem.net/wp-content/uploads/2018/01/Guidelines-for-Preliminary-Ecological-Appraisal-Jan2018-typo-edit.pdf>

Chartered Institute for Ecology and Environmental Management (CIEEM) (2018). Guidelines for Ecological Impact Assessment [PDF] CIEEM. Available from: <https://cieem.net/wp-content/uploads/2018/08/ECIA-Guidelines-2018-Terrestrial-Freshwater-Coastal-and-Marine-V1.2-April-22-Compressed.pdf>

Collins, J. (ed.) (2023). Bat Surveys for Professional Ecologists: Good Practice Guidelines. 3rd edition. The Bat Conservation Trust, London.

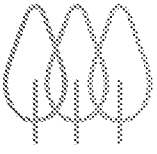
English Nature (2001). Great Crested Newt Mitigation Guidelines. English Nature, Peterborough.

Institute of Lighting Professionals (2023). Guidance Note. Bats and Artificial Lighting in the UK: Bats and the Built Environment Series [online] Available from: <https://www.theilp.org.uk/documents/guidance-note-8-bats-and-artificial-lighting/> [Accessed 19.09.23].

JNCC (2010). Handbook for Phase 1 Habitat Survey – A Technique for Environmental Audit. England Field Unit, Nature Conservancy Council. Reprinted by Joint Nature Conservation Committee, Peterborough.

Ministry of Housing, Communities and Local Government (2023) National Planning Policy Framework (NPPF) [online] Available from: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1182995/NPPF_Sept_23.pdf [Accessed 19.09.23].

Multi-Agency Geographic Information for the Countryside (MAGIC) (2023). MAGIC. Natural England, Leeds. [online]. Available from: <http://magic.defra.gov.uk/home.html> [Accessed 19.09.23].



7 APPENDICES

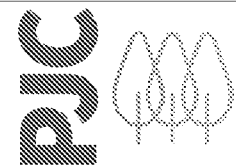
Appendix I: Site Location Plan



LEGEND:

----- Site boundary

STATUS: FOR INFORMATION ONLY



Sussex Office: Rocks Yard, Victoria Rd, Hove, Brighton, BN2 4TG.
T: 01323 832120.
Kent Office: Unit 1, Hanover Mill, Marsham, Nr Ashford, Kent, TN26 6NU.
T: 01233 225386
E: contact@pjcconsultancy.com
W: <https://www.pjcconsultancy.com>

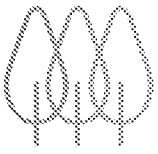
CLIENT: Liberato Dichello

**PROJECT: Knivesborough
Ferring
BN12 6PN**

**TITLE:
Appendix I: Site Location Plan**

SCALE AT A4: 1:1,044	DRAWN: NC	APPROVED: TK
PROJECTION: EPSG:27700	DATE: 27/09/23	DATE: 09/10/23

**DRAWING No:
PJC/5335E/23/A1/V1**



Appendix II: Legislation and Planning Policy

Legislation

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 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

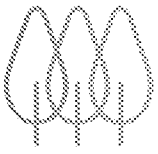
Those species protected under the act and most likely encountered during development include:

- 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

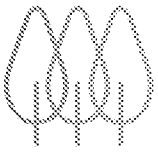
Wild plants are protected under Section 13 of the Wildlife and Countryside Act 1981 (as amended). It prohibits the unauthorised intentional uprooting of any wild plant species and forbids any picking, uprooting or destruction of plants listed on Schedule 8 of which there are over 150.

The Conservation of Habitats and Species Regulations 2019 (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*, killamey 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 helmsii, 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 2019, 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

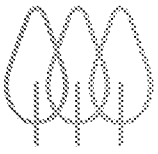
There are four widespread amphibian species, common frog *Rana temporaria*, common toad *Bufo bufo*, palmate newt *Lissotriton helveticus* and smooth newt *Lissotriton vulgaris*. All of the four widespread species receive partial protection under Schedule 5 of the Wildlife and Countryside Act (1981, 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 2019. 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 licence which provides authorisation for scientific and educational purposes

Reptiles

The four common reptile species, adder *Vipera berus*, grass snake *Natrix helvetica*, 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 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

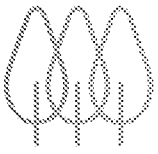


Bats

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 2019. 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 2019. 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 2019. 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.

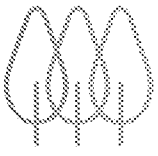
Biodiversity Policies

National Planning Policy Framework (NPPF) 2023

Published in 2023 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 174 of The National Planning Policy Framework (NPPF) states:

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

- 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);
- 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;
- maintaining the character of the undeveloped coast, while improving public access to it where



appropriate;

- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- 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
- remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.”

Paragraph 179 states that “to protect and enhance biodiversity and geodiversity, plans should:

- 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 biodiversity; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; and
- 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.”

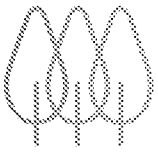
Furthermore, paragraph 185 states that when determining planning applications, local planning authorities should aim to conserve and enhance biodiversity by applying the following principles:

- if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused;
- development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest;
- development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons and a suitable compensation strategy exists; and
- 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 181 states:

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

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



potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.”

Paragraph 182 states:

“The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.”

The UK Biodiversity Framework (2011-2020).

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.

Arun Local Plan (Arun District Council, 2018)

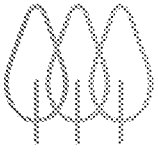
The Arun Local Plan (Arun District Council, 2018) sets out the relevant policies for the control of development with regards to the natural environment and biodiversity.

Policy ENV DM5: Development and biodiversity

Development schemes shall, in the first instance, seek to achieve a net gain in biodiversity and protect existing habitats on site. They shall also however incorporate elements of biodiversity including green walls, roofs, bat and bird boxes as well as landscape features minimising adverse impacts on existing habitats (whether designated or not). Development schemes shall also be appropriately designed to facilitate the emergence of new habitats through the creation of links between habitat areas and open spaces. Together, these provide a network of green spaces which serve to reconnect isolated sites and facilitate species movement.

Where there is evidence of a protected species on a proposed development site, planning applications shall include a detailed survey of the subject species, with details of measures to be incorporated into the development scheme to avoid loss of the species. This involves consideration of any impacts that will affect the species directly or indirectly, whether within the application site or in an area outside of the site, which may be indirectly affected by the proposals. All surveys shall be carried out at an appropriate time of year and shall be undertaken by a qualified and, where appropriate, suitably licensed person.



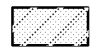

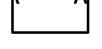




All developments shall have regard to Natural England's standing advice for protected species.



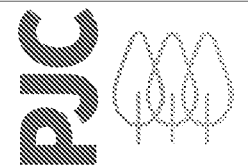
Appendix III: Phase 1 Habitat Map



LEGEND:

-  TN - Target note
-  A3.1 - Scattered broadleaved trees
-  F2.1 - Marginal and inundation - marginal vegetation
-  G1 - Standing water
-  J1.2 - Cultivated/disturbed land - amenity grassland
-  J1.4 - Introduced shrub
-  J3.6 - Buildings
-  J5 - Hardstanding
-  Site boundary

STATUS: FOR INFORMATION ONLY



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E: contact@pjcconsultancy.com
W: <https://www.pjcconsultancy.com>

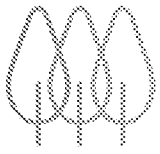
CLIENT: Liberato Dichello

PROJECT: Knivesborough
Ferring
BN12 6PN

TITLE: Appendix III: Phase 1 Habitat Map

SCALE AT A4: 1:239.4	DRAWN: NC	APPROVED: TK
PROJECTION: EPSG:27700	DATE: 30/09/23	DATE: 18/10/23

DRAWING No: PJC/5335E/23/A3/V1



Appendix IV: Site Photographs

All Site photographs were taken by Naomi Cornwell BSc(Hons) MSc on 19th September 2023.



Photograph 1: Looking westwards through the Site, B1 to the left and B2 to the right..



Photograph 2: Looking southwards through the Site.



Photograph 3: Scattered fruit trees at northern boundary.



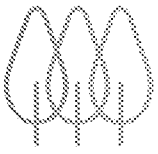
Photograph 4: Amenity grassland with B1 in the background.



Photograph 5: The pond centrally within the Site.



Photograph 6: The pond centrally within the Site.



Appendix V: Precautionary Non-Licensed Method Statement

MITIGATION MEASURES

The mitigation measures detailed below are provided to ensure that in the unlikely event of reptiles and GCN being present within the Site, they are protected from death, injury or disturbance, and that their resting places are also protected from damage, destruction, or obstruction of access.

PRIOR TO CONSTRUCTION WORKS

All site workers undertaking any habitat clearance works will receive an ecological Tool Box Talk (TBT) with a focus on reptiles and GCN from a suitably qualified ecologist prior to undertaking habitat clearance works on Site.

DURING CONSTRUCTION WORKS

Access and egress routes for people and plant must be kept to existing areas of hardstanding, bare earth and grassland (providing the grassland sward has been maintained below 100mm in height).

Habitat clearance must be conducted using a two-stage directional approach, first reducing the vegetation to approximately 100mm above ground, then the second cut reducing it to ground level. This technique will allow any protected species potentially present within the Site to naturally disperse to other areas of suitable semi-natural habitat within the surroundings.

An ecologist must hand search the cleared areas either before the first cut, or immediately after, depending on the height of the vegetation and visibility.

Potential refuge features, such as exposed tree roots and mammal burrows potentially used by hibernating reptiles and GCN must not be moved or affected during the hibernation season (November to March). All features must be deconstructed sensitively, whereby removing half of the feature (top-down) and removing the second half after 24 hours.

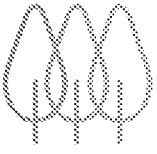
All suitable reptile and GCN habitat removal must be supervised at all times by a suitably qualified ecologist.

All arisings generated from habitat clearance works must be removed from Site and should not be stored on Site for any longer than a 24-hour period. In the event that this is not possible, all arisings must be stored within a skip or a minimum of 10m away from retained suitable reptile and GCN habitat, and only on existing hardstanding or bare earth.

All excavations should be excavated individually and back filled immediately where possible. Where this is not possible, excavations must be covered to prevent reptiles and GCN (and other animals) becoming trapped within the excavation. If this is also not possible, one or both sides of the excavation must be sloped in order to allow egress from the excavation.

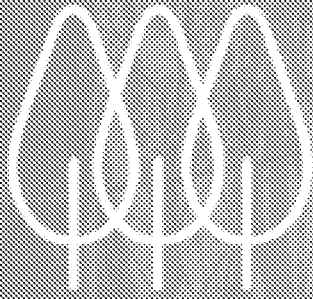
All machinery, equipment and materials must be stored on areas identified by an ecologist as being unsuitable for reptiles and GCN, for example, grassland of a short sward.

All site workers, particularly those involved in habitat clearance works, must remain vigilant at all times during construction works if at any point during construction works any protected species or signs of protected species, including reptiles and GCN are identified, the following instructions must be adhered to:



- Stop works immediately and leave the area;
- Inform an ecologist immediately who will then provide further guidance/instructions;
- Do not try to handle a reptile or GCN; and
- Do not resume construction works until advised it is safe to do so by a suitably qualified ecologist.

PJC



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Date: 23rd October 2023