

Preliminary Ecological Appraisal

Land at Townhouse Farm
Church Lane
Ardingly
East Sussex
RH17 6UR

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This report has been prepared by

PJC Consultancy Ltd

on behalf of

Balcombe Estate

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EXECUTIVE SUMMARY

PJC Consultancy Ltd was commissioned by Balcombe Estate to provide a Preliminary Ecological Appraisal for a parcel of land at Townhouse Farm, Church Lane, Ardingly, East Sussex. 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 NPPF – more specifically *Chapter 15 'Conserving and Enhancing the Natural Environment'* as well as the Mid Sussex District Plan 2014–2031 (Mid Sussex District Council, 2018).

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

Protected Species	Suitable Habitat Present	Recommended Further Surveys	Ecological Mitigation
Bats (Roosting)	Three buildings (B1, B4 & B5) within the Site were identified as having low suitability to support roosting bats.	A single bat emergence surveys should on each building should be undertaken between May and August inclusive.	Further requirements for mitigation, compensation and/or licences may be required for bats depending on the results of the recommended further surveys.
Bats (Foraging and Commuting)	The Site was identified as having suitability to support commuting and foraging bats primarily along the treelines and woodland edge.	None required.	A sensitive lighting strategy must be adopted during both the construction and operational phase of the proposed development to avoid illumination of the treelines and woodland edge.
Badgers	No evidence of badgers was recorded within the Site and within 30m of the Site. However, the Site, particularly the woodland, was considered to provide some limited foraging and commuting and potential sett building 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.	Further requirements for mitigation, compensation and/or licences may be required for bats depending on the results of the recommended further surveys.

Dormice	The woodland and treelines were identified as providing some suitable foraging, commuting, nest building and hibernating opportunities for dormice.	None required as woodland and treelines are not anticipated to be affected.	As a precaution, it is recommended that a systematic fingertip search be conducted by a suitably qualified ecologist to search all areas of sub-optimal habitat (i.e. parcels of introduced shrubs) immediately prior to any required habitat clearance.
GCN	The Site was identified as having potential to support GCN during their terrestrial lifecycle phase. There was also suitable habitat connectivity to a network of waterbodies within a 250m radius of the Site.	A GCN Habitat Suitability Index (HSI) assessment of all potentially suitable waterbodies within a 250m radius of the Site should be undertaken. Depending on the HSI findings, further GCN presence/likely absence surveys may be required.	Further requirements for mitigation, compensation and/or licences may be required for GCN depending on the results of the recommended further surveys.
Reptiles	The Site was identified as having high potential to support reptiles providing foraging, commuting, basking and hibernating opportunities.	None required.	As a precaution, it is recommended that habitat clearance particularly around the introduced shrub and pond margins be undertaken using a sensitive vegetation clearance approach. Furthermore, any excavation works or actions that would impact upon potential reptile hibernation features, such as log piles, must be carried out outside the reptile hibernation season (i.e. between April – October inclusive)
Nesting Birds	The Site was identified as having potential to support nesting birds.	None required.	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.

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1 INTRODUCTION

1.1 INSTRUCTION

- 1.1.1 PJC Consultancy Ltd was commissioned by Balcombe Estate to provide a preliminary ecological appraisal (PEA) which includes an extended phase 1 habitat survey and a preliminary bat roost assessment (PBRA) of two parcels (plot 1 and plot 2) of adjoining land at Townhouse Farm, Church Lane, Ardingly, East Sussex (hereafter collectively referred to as the 'Site').

1.2 DOCUMENTS AND INFORMATION PROVIDED

- 1.2.1 PJC Consultancy Ltd was provided with the following documents relating to the Site and development proposals:

- Plot 1 Block Plan (Existing and Proposed) (Drawing No: 22690160S3P4) (Cowan Architects, 2021);
- Plot 1 Proposed Elevations (Drawing No: 22690161S3P9) (Cowan Architects, 2021);
- Plot 1 Outbuilding Plans and Elevations (Drawing No: 22690164S4P4) (Cowan Architects, 2021);
- Plot 2 & 3 Block Plan (Existing and Proposed) (Drawing No: 22690120S4P9) (Cowan Architects, 2021);
- Plot 2 Proposed Elevations (Drawing No: 22690122S4P9) (Cowan Architects, 2021);
- Plot 3 Proposed Plans and Elevations (Drawing No: 22690171S4P4) (Cowan Architects, 2022); and
- Plot 3 Existing Plans and Elevations (Drawing No: 22690170S4P4) (Cowan Architects, 2022).

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 proposal is for the demolition of the existing residential buildings within plot 1 and farm buildings within plot 2, and construction of a single detached residential dwelling in both plot 1 and 2, with associated access and gardens.

1.6 SITE DESCRIPTION

1.6.1 The Site comprises two separate adjoining plots (plot 1 and plot 2). Plot 1 comprises two semi-detached buildings with associated gardens whereas plot 2 comprises multiple farm buildings. Treelines and woodland parcels border the Site, notably the western aspects of both plot 1 and 2. The Site is located at the southern end of Church Lane, approximately 500m west of the centre of Ardingly village centre (OS central grid reference: TQ 3378 2933). Overall the Site is situated within a heavily rural landscape and forms part of the Balcombe Estate. The immediate and wider landscape comprises both arable and pastoral farmland and woodland parcels, all intersected by a complex network of hedgerows, treelines and woodland belts. Of particular note is Ardingly Reservoir which is located approximately 400m west of the Site. The location of the Site within its environs is presented in Appendix I.

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 II.

1.7.2 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) 2019 (Ministry of Housing, Communities and Local Government, 2019);
- The Protection of Badgers Act 1992;
- The UK Post-2010 Biodiversity Framework (2011–2020); and
- Mid Sussex District Plan 2014–2031 (Mid Sussex District Council, 2018).

2 METHODOLOGY

2.1 DESK STUDY

2.1.1 A desk study was undertaken in March 2021 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, 2021) 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 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'. 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 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.

2.1.4 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 17th March 2021 by Thomas Knight BSc(Hons) MSc MCIEEM (Natural England class one bat and great crested newt *Triturus cristatus* licence holder) 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.

2.3 PRELIMINARY BAT ROOST ASSESSMENT

- 2.3.1 All buildings and trees within the Site were also subject to a preliminary bat roost assessment (PBRA). The internal inspection of the buildings and ground-based visual 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).

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

Table 2: Features of buildings commonly used by bats.

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

- 2.3.2 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.

2.4 GREAT CRESTED NEWT HABITAT SUITABILITY INDEX ASSESSMENT

2.4.1 No waterbodies were identified within the Site. In total, five waterbodies (P1, P2, P3, P4 & P5) were identified within 250m of the Site. the location of these waterbodies can be seen in Appendix IV below. Given its location immediately adjacent the Site, waterbody P1 was subject to a habitat suitability index (HSI) assessment during the extended phase 1 habitat survey.

2.4.2 A HSI is a tool that enables an assessment of the likelihood of a water body 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

- 2.4.3 Each variable is assessed separately and then mathematically combined in the following formula, $HSI = (SI_1 * SI_2 * SI_3 * SI_4 * SI_5 * SI_6 * SI_7 * SI_8 * SI_9 * SI_{10})^{1/10}$ 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

2.5 SURVEY LIMITATIONS

- 2.5.1 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.
- 2.5.2 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.
- 2.5.3 The extended phase 1 habitat survey was conducted at a sub-optimal time of year i.e. out of the peak growing/flowering season for most British plants. However, plant identification was undertaken using vegetative survey techniques and was sufficient to determine the broad habitat types as required in an extended phase 1 habitat survey.
- 2.5.4 Badger and otter records are confidential and were not provided by Sussex Biodiversity Record Centre. An assessment of whether there is suitable habitat to support these species is made and a precautionary approach adopted.
- 2.5.5 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 (EcIA) should be submitted in support of a planning application instead.

- 2.5.6 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 A single statutory designated site of nature conservation importance was identified within the zone of influence as part of the desk study. Ardingly Reservoir Local Nature Reserve (LNR) is located approximately 400m west of the Site.

3.1.2 Ardingly LNR supports a variety of semi-natural habitats including open water, wetland, reedbed, deciduous woodland (including hazel *Corylus avellana* coppice) and hay-meadow. Ardingly LNR is also considered an important migration stop for many bird species including osprey *Pandion haliaetus*. Common kingfisher *Alcedo atthis* are also known to nest within the reserve. The reserve also supports other protected and notable species including barn owl *Tyto alba*, hazel dormouse *Muscardinus avellanarius*, glow worm *Lampyrus noctiluca*, and a number of bat species. The sandstone outcrops within the reserve also support a rare community of ferns, mosses, liverworts and lichens.

Non-Statutory Designated Sites

3.1.3 A single non-statutory designated site of nature conservation importance, namely Ardingly Reservoir and Loder Valley Nature Reserve, was identified within the zone of influence as part of the desk study, located approximately 400m west of the Site. For further details regarding the sites reason for designation, please refer to paragraph 3.1.2 above.

Protected and Notable Habitats

3.1.4 Overall, 22 parcels of ancient woodland listed on the ancient woodland inventory were identified within the zone of influence as part of the desk study, the nearest being Rushet Wood Shaw located approximately 300m west the Site.

3.1.5 Overall, 103 parcels of HPI listed on the priority habitat inventory were identified within the zone of influence as part of the desk study. For the most part these parcels included broadly classified deciduous woodland, although occasional parcels of traditional orchard were also recorded. The closest parcels of HPI were parcels of traditional orchard and broadly classified deciduous woodland located approximately 60m north and 70m east of the Site respectively.

Protected and Notable Species

3.1.6 No EPSM licences granted in relation to protected species were identified within the zone of influence as part of the desk study.

3.1.7 Records of protected and notable species identified within the zone of influence as part of as part of the desk study are summarised in Table 6 below. The distance and aspect is not provided for mobile species such as birds or where a grid reference was not provided to at least six figures.

Table 6: 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					
<i>Nyctalus noctula</i>	Noctule	Habitat Regs (2019), W&CA Sch5, NERC S41	1	1.6km north	1995
<i>Pipistrellus pipistrellus</i>	Common pipistrelle	Habitat Regs (2019), W&CA Sch5	4	250m north	2016
<i>Pipistrellus pygmaeus</i>	Soprano pipistrelle	Habitat Regs (2019), W&CA Sch5, NERC S41	6	800m south	2016
<i>Myotis mystacinus</i> / <i>Myotis brandtii</i>	Whiskered / Brandt's	Habitat Regs (2019), W&CA Sch5	22	700m south-west	2019
<i>Myotis nattereri</i>	Natterer's	Habitat Regs (2019), W&CA Sch5	55	700m south-west	2019
<i>Myotis daubentonii</i>	Daubenton's	Habitat Regs (2019), W&CA Sch5	56	700m south-west	2019
<i>Barbastella barbastellus</i>	Barbastelle	Habitat Regs (2019), W&CA Sch5, NERC S41	1	1.8km north	2011
<i>Myotis alcathoe</i>	Alcathoe	Habitat Regs (2019), W&CA Sch5	5	700m south-west	2016
<i>Plecotus auritus</i>	Brown long-eared	Habitat Regs (2019), W&CA Sch5, NERC S41	3	1.9km east	2011
Other mammal species					
<i>Muscardinus avellanarius</i>	Hazel dormouse	Habitat Regs (2019), W&CA Sch5, NERC S41	4	500m south-west	2013
<i>Micromys minutus</i>	Harvest mouse	NERC S41	2	500m west	2019
<i>Erinaceus europaeus</i>	West European hedgehog	NERC S41	6	850m east	2018
Amphibians					
<i>Bufo bufo</i>	Common toad	W&CA Sch5, NERC S41	2	1km west	1993
<i>Lissotriton vulgaris</i>	Smooth newt	W&CA Sch5	1	950m north	2017
<i>Triturus cristatus</i>	Great crested newt	Habitat Regs (2019), W&CA Sch5, NERC S41	12	150m north	2017
Reptiles					
<i>Natrix helvetica</i>	Grass snake	W&CA Sch5, NERC S41	3	600m east	2011

Birds (including only protected bird species listed on Schedule 1 (Part 1) of the Wildlife and Countryside Act 1981 (as amended) and those listed as Species of Principal Importance (SPIs) under the NERC Act 2006).

<i>Anser albifrons</i>	White-fronted Goose	NERC S41	1	Within zone of influence	1999
<i>Melanitta nigra</i>	Common Scoter	W&CA Sch1 Pt1, NERC S41	1	Within zone of influence	2003
<i>Spatula querquedula</i>	Garganey	W&CA Sch1 Pt1	3	Within zone of influence	2018
<i>Vanellus vanellus</i>	Lapwing	NERC S41	62	Within zone of influence	2019
<i>Chlidonias niger</i>	Black Tern	W&CA Sch1 Pt1	6	Within zone of influence	2019
<i>Hydrocoloeus minutus</i>	Little Gull	W&CA Sch1 Pt1	4	Within zone of influence	2016
<i>Ichthyaetus melanocephalus</i>	Mediterranean Gull	W&CA Sch1 Pt1	2	Within zone of influence	2017
<i>Larus argentatus</i>	European Herring Gull	NERC S41	71	Within zone of influence	2019
<i>Tringa nebularia</i>	Greenshank	W&CA Sch1 Pt1	5	Within zone of influence	2019
<i>Tringa ochropus</i>	Green Sandpiper	W&CA Sch1 Pt1	5	Within zone of influence	2019
<i>Botaurus stellaris</i>	Eurasian Bittern	W&CA Sch1 Pt1, NERC S41	5	Within zone of influence	2011
<i>Streptopelia turtur</i>	Turtle Dove	NERC S41	13	Within zone of influence	2018
<i>Alcedo atthis</i>	Kingfisher	W&CA Sch1 Pt1	104	Within zone of influence	2019
<i>Cuculus canorus</i>	Cuckoo	NERC S41	24	Within zone of influence	2011
<i>Circus cyaneus</i>	Hen Harrier	W&CA Sch1 Pt1, NERC S41	2	Within zone of influence	2012
<i>Milvus milvus</i>	Red Kite	W&CA Sch1 Pt1	26	Within zone of influence	2019
<i>Pandion haliaetus</i>	Western Osprey	W&CA Sch1 Pt1	35	Within zone of influence	2019
<i>Falco peregrinus</i>	Peregrine	W&CA Sch1 Pt1	4	Within zone of influence	2017
<i>Falco subbuteo</i>	Hobby	W&CA Sch1 Pt1	23	Within zone of influence	2019
<i>Perdix perdix</i>	Grey Partridge	NERC S41	1	Within zone of influence	2013
<i>Alauda arvensis</i>	Eurasian Skylark	NERC S41	6	Within zone of influence	2015
<i>Cettia cetti</i>	Cetti's Warbler	W&CA Sch1 Pt1	1	Within zone of influence	2016
<i>Emberiza schoeniclus</i>	Common Reed Bunting	NERC S41	36	Within zone of influence	2019
<i>Acanthis cabaret</i>	Lesser Redpoll	NERC S41	15	Within zone of influence	2017

<i>Coccothraustes coccothraustes</i>	Hawfinch	NERC S41	17	Within zone of influence	2019
<i>Fringilla montifringilla</i>	Brambling	W&CA Sch1 Pt1	5	Within zone of influence	2019
<i>Linaria cannabina</i>	Linnet	NERC S41	17	Within zone of influence	2019
<i>Loxia curvirostra</i>	Red Crossbill	W&CA Sch1 Pt1	14	Within zone of influence	2017
<i>Pyrrhula pyrrhula</i>	Eurasian Bullfinch	NERC S41	90	Within zone of influence	2019
<i>Anthus trivialis</i>	Tree Pipit	NERC S41	1	Within zone of influence	1989
<i>Motacilla flava</i>	Western Yellow Wagtail	NERC S41	1	Within zone of influence	1995
<i>Muscicapa striata</i>	Spotted Flycatcher	NERC S41	15	Within zone of influence	2016
<i>Phoenicurus ochruros</i>	Black Redstart	W&CA Sch1 Pt1	1	Within zone of influence	2018
<i>Poecile montanus</i>	Willow Tit	NERC S41	14	Within zone of influence	2007
<i>Poecile palustris</i>	Marsh Tit	NERC S41	128	Within zone of influence	2019
<i>Passer domesticus</i>	House Sparrow	NERC S41	48	Within zone of influence	2018
<i>Phylloscopus sibilatrix</i>	Wood Warbler	NERC S41	1	Within zone of influence	2012
<i>Prunella modularis</i>	Dunnock	NERC S41	111	Within zone of influence	2019
<i>Regulus ignicapilla</i>	Common Firecrest	W&CA Sch1 Pt1	6	Within zone of influence	2019
<i>Sturnus vulgaris</i>	Starling	NERC S41	55	Within zone of influence	2019
<i>Turdus iliacus</i>	Redwing	W&CA Sch1 Pt1	55	Within zone of influence	2019
<i>Turdus philomelos</i>	Song Thrush	NERC S41	130	Within zone of influence	2019
<i>Turdus pilaris</i>	Fieldfare	W&CA Sch1 Pt1	22	Within zone of influence	2019
<i>Turdus torquatus</i>	Ring Ouzel	NERC S41	1	Within zone of influence	2007
<i>Dryobates minor</i>	Lesser Spotted Woodpecker	NERC S41	10	Within zone of influence	2018
<i>Podiceps auritus</i>	Slavonian Grebe	W&CA Sch1 Pt1	1	Within zone of influence	1994
<i>Tyto alba</i>	Western Barn Owl	W&CA Sch1 Pt1	4	Within zone of influence	2009
Invertebrates (including only protected invertebrate species listed on Schedule 5 of the Wildlife and Countryside Act 1981 (as amended) and those listed as SPIs under the NERC Act 2006).					
<i>Apatura iris</i>	Purple emperor	W&CA Sch5	7	600m east	2018

<i>Coenonympha pamphillus</i>	Small heath	NERC S41	10	1km north-west	2004
<i>Erynnis tages</i>	Dingy skipper	NERC S41	14	1km north-west	2003
<i>Lasiommata megera</i>	Wall	NERC S41	1	Within zone of influence	1996
<i>Limenitis camilla</i>	White admiral		69	1km north-west	2020
<i>Plebejus argus</i>	Silver studded blue	NERC S41	1	1km north-west	2004
<i>Pyrgus malvae</i>	Grizzled skipper	NERC S41	3	Within zone of influence	1998
<i>Centromerus serratus</i>	Serrated Tongue-spider	NERC S41	1	Within zone of influence	1991
<i>Lipsothrix nervosa</i>	Southern Yellow Splinter	NERC S41	2	Within zone of influence	1996
Plants (including only protected plant species listed on Schedule 8 of the Wildlife and Countryside Act 1981 (as amended) and those listed as SPIs under the NERC Act 2006).					
<i>Hyacinthoides non-scripta</i>	Bluebell	W&CA Sch8	9	Within zone of influence	2008
<i>Mentha pulegium</i>	Pennyroyal	NERC S41	7	500m south-west	2005

3.2 EXTENDED PHASE 1 HABITAT SURVEY

3.2.1 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 V.

Semi-Natural Broadleaved Woodland (A1.1)

3.2.2 A small parcel of semi-natural broadleaved woodland was recorded within the western corner of plot 1, within a naturally formed hollow. The dominant tree species recorded included oak *Quercus robur* with occasional ash *Fraxinus excelsior*. The woodland also supported a dense understorey comprising hazel, *holly Ilex aquifolium*. The ground flora was dominated by low level bramble *Rubus fruticosus* agg.

Scattered Trees (A3)

3.2.3 Treelines were recorded along the western boundary of plot 1 and along the southern boundary of plot 2. Tree species recorded included predominantly oak, ash and holly.

Amenity Grassland (J1.2)

3.2.4 Plot 1 comprised formal gardens which for the most part consisted of amenity grassland. The gardens at the front of buildings B1 and B2 and to the rear of building B1 supported a short (<5cm) sward indicative of a recent cut, whereas the garden at the rear of building BX supported a taller and rougher (<10–15cm) sward indicating that the grass had not been cut for a considerably longer time. Small and isolated parcels of amenity grassland were

also recorded within plot 2, notably along the plot's southern boundary. However, the grassland here was in poor condition and patchy due to numerous tyre tracks and the storage of materials. Plant species recorded included predominantly perennial ryegrass *Lolium perenne* with occasional clover *Trifolium* sp., and buttercup *Ranunculus* sp.

Introduced Shrub (J1.4)

- 3.2.5 A narrow linear belt of introduced shrub, comprising non-native ornamental plant species, was recorded in the rear garden of building B1.

Intact species poor hedgerow (J2.1.2)

- 3.2.6 A species-poor hedge was recorded comprising solely Leyland cypress *Leylandii cupressus*, was recorded along the front garden boundary of building B1.

Buildings (J3.6)

- 3.2.7 Plot 1 comprised two semi-detached residential buildings (B1 and B2), in addition to a small number of sheds. Plot 2 comprised several adjoining farm buildings (B3, B4 and B5), and a separate building used for commercial purposes towards the northern extent of the Site. A full description of the buildings can be found in Table 6 below.

Bare Ground (J4)

- 3.2.8 Plot 1 comprised large areas of bare ground comprised of compacted soil and other substrate, that functions as an additional access route and parking.

Hardstanding (J5)

- 3.2.9 Plot 1 comprised areas of hardstanding primarily in the form of an access route whereas plot 2 comprised areas of hardstanding primarily in the form of access paths and patios.

3.3 PRELIMINARY BAT ROOST ASSESSMENT

- 3.3.1 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 & B2	
External Description	
Semi-detached two-storey residential dwellings which supported brick and mortar walls and a pitched clay-tiled roof. The building supported a single central chimney breast which serves both buildings. The buildings supported wooden soffit boxes which were in overall very good condition. Timber framed windows were also recorded across the buildings.	
Internal Description	
The building roof voids supported wooden sarking and were partially insulated with foam board insulation. The roof supported timber trusses and rafters. Dense cobwebs were recorded in both roof voids. Furthermore, climbing vegetation had encroached into the roof void of building B2. No light ingress was recorded in either roof void.	
Evidence of Bats	

None recorded at the time of the assessment.
Potential Roost Features
Concrete at the base of the chimney stack appeared to be in poor condition, particularly on the southern elevation, where small cracks and crevices were recorded. A number of clay ventilation bricks were also recorded across the building, some of which supported holes that would be big enough for a bat to pass through, potentially into a cavity wall space behind.
Potential to Support Roosting Bats
Low.

B3
External Description
The building supported a pitched roof constructed of corrugated asbestos panels with skylights. The walls along the eastern elevation were constructed of horizontal wooden cladding which appeared to be relatively new and in overall very good condition. The walls along the southern and northern elevations were constructed of corrugated metal panels which also appeared to be relatively new and in overall very good condition.
Evidence of Bats
None recorded at the time of the assessment.
Potential Roost Features
None recorded at the time of the assessment.
Potential to Support Roosting Bats
Negligible.

B4
External Description
The building supported a pitched roof constructed of corrugated asbestos panels. The walls were constructed of both breeze blocks and corrugated metal panels which appeared to be in overall good condition.
Evidence of Bats
None recorded at the time of the assessment.
Potential Roost Features
None recorded at the time of the assessment.
Potential to Support Roosting Bats
Negligible.

B5
External Description
Single storey building in the style of a traditional 'Sussex barn'. It is understood that the building was renovated approximately 15 years ago and is now used for commercial purposes. The building supported a pitched half-hip roof constructed of red clay tiles. The walls were constructed of traditional brick and mortar.
Evidence of Bats
None recorded at the time of the assessment.
Potential Roost Features
A small number of missing, lifted and damaged roof tiles across both the east and west elevations. A small gap (approximately 20cm ²) was recorded within the wooden ceiling of the porch on the east elevation. The gap may provide potential access into a cavity wall or roof space behind.
Potential to Support Roosting Bats
Low.

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

All trees within and immediately adjacent the Site.
Description
Multiple semi-mature and mature trees comprising predominantly oak and ash, all of which appeared to be in overall good health with the exception of some minor deadwood in the upper canopies and dense ivy around some of the main trunks.
Evidence of Bats
None recorded at the time of the assessment.
Potential Roost Features
Dense ivy around some mature trees and deadwood in upper canopies.
Potential to Support Roosting Bats
Low.

3.4 GCN HSI ASSESSMENT

3.4.1 A summary of the HSI results for waterbody P1 is presented in Table 8 below.

Table 8: Summary of HSI Results.

Criteria	HSI Score
Location	1
Pond Area	0.4
Pond Drying	0.9
Water Quality	0.67
Shade	0.8
Fowl	1
Fish	0.67
Pond Count	1
Terrestrial Habitat	0.67
Macrophytes	0.9
Overall Score	0.78 = "Good"

4 DISCUSSION AND RECOMMENDATIONS

4.1 STATUTORY DESIGNATED SITES

4.1.1 A single statutory designated site of nature conservation importance, namely Ardingly Reservoir LNR, was identified within the zone of influence as part of the desk study, located approximately 400m west of the Site.

4.1.2 However, given the distance between the Site and Ardingly Reservoir LNR, and the size of the Site and nature of the proposed development, adverse effects upon Ardingly Reservoir LNR are considered highly unlikely.

4.1.3 However, as a precaution and in accordance with best practice, it is recommended that a strict pollution prevention protocol be adhered to during the construction phase of the proposed development to ensure that dust and particulate pollution does not indirectly adversely impact Ardingly Reservoir LNR, or indeed any of the surrounding semi-natural habitats. It is recommended that this refers to established good practice guidance. The Environment Agency no longer provides good practice guidance (www.gov.uk), however a range of documents are available via the national archives.

4.2 NON-STATUTORY DESIGNATED SITES

4.2.1 A single non-statutory designated site of nature conservation importance, namely Ardingly Reservoir and Loder Valley Nature Reserve, was identified within the zone of influence as part of the desk study, located approximately 400m west of the Site.

4.2.2 However, given the distance between the Site and Ardingly Reservoir and Loder Valley Nature Reserve, and the size of the Site and nature of the proposed development, adverse effects upon Ardingly Reservoir and Loder Valley Nature Reserve are considered highly unlikely.

4.2.3 However, as a precaution and in accordance with best practice, it is recommended that a strict pollution prevention protocol be adhered to during the construction phase of the proposed development as outlined in paragraph 4.1.3 above.

4.3 PROTECTED AND NOTABLE HABITATS

4.3.1 Overall, 22 parcels of ancient woodland and 103 parcels of HPI were identified within the zone of influence as part of the desk study, the nearest being parcels of traditional orchard and broadly classified deciduous woodland HPI located approximately 60m north and 70m east of the Site respectively.

4.3.2 Given the distance between the Site and the nearest parcel of ancient woodland and HPI and given the size of the Site and nature of the proposed development, adverse effects upon these protected and notable habitats are considered highly unlikely.

4.3.3 However, as a precaution and in accordance with best practice, it is recommended that a strict pollution prevention protocol be adhered to during the construction phase of the proposed development as previously detailed in paragraph 4.1.3 above.

4.3.4 In addition to the above, although not listed on Natural England's priority habitat inventory, likely because of its small and un-mappable size, the parcel of semi-natural broadleaved woodland recorded within the western corner of plot 1, is likely to qualify specifically as 'lowland mixed deciduous woodland' HPI under the NERC Act 2006, given its age, structure and tree species composition.

4.3.5 This woodland parcel is anticipated to be retained and protected as part of the proposed development. Therefore, direct impacts to the integrity and structure of the trees forming the woodland are not anticipated.

4.4 PROTECTED AND NOTABLE SPECIES

4.4.1 The Site was considered to provide some opportunity for protected and notable species. The suitability of habitat 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 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.

4.4.3 Overall nine bat species were identified within the zone of influence as part of the desk study, which included approximately a number of roosts, the nearest of which included a mixed species roost (comprising daubenton's, whiskered/brandt's and natterer's) located approximately 700m south-west of the Site.

4.4.4 As part of the PBRA, buildings B2 and B3 were identified as having negligible suitability to support roosting bats and therefore roosting bats are highly likely absent from these buildings.

4.4.5 Buildings B1, B4 and B5 were identified as exhibiting features, i.e lifted, damaged or missing roof tiles with potential to support roosting bats. On this basis, buildings B1, B4 and B5 were identified as having low suitability to support roosting bats.

4.4.6 Given that buildings B1, B4 and B5 are proposed to be demolished, the proposed development could result in the damage or destruction of a potential bat roost site. Therefore, further surveys are required to determine presence or likely absence of bat roosts within buildings B1, B4 and B5 to determine any subsequent requirements for mitigation, compensation and/or licences to facilitate the proposed development. Buildings B1, B4 and B5 were identified as having low suitability to support roosting bats. It is therefore recommended that a single dusk emergence survey be undertaken.

4.4.7 All bat emergence and re-entry surveys should be undertaken between May and September inclusive. A minimum of a two-week interim period must be allowed between each survey visit.

- 4.4.8 As part of the PBRA, all mature trees forming the treelines bordering the Site were identified as having low suitability to support roosting bats. It should be noted that the PBRA was undertaken from the ground and therefore it was not possible to accurately determine the characteristics of the feature, for example the depth of the feature within the tree. The above classification therefore follows a precautionary approach using professional judgement.
- 4.4.9 No felling or heavy pruning works to any of these trees are anticipated. However, in the unlikely event that some felling or heavy pruning works are required to facilitate the proposed development, then as a precaution it is recommended that an inspection of tree(s) be undertaken immediately prior to felling/heavy pruning to determine whether bats are roosting within the tree, which can be undertaken by the tree surgery contractor under the instruction and supervision of a suitably licenced ecologist.
- 4.4.10 It should be noted that should a bat roost or roosts be found during the further bat emergence survey and/or during any tree inspections, a EPSM licence may be required to permit works that would potentially cause disturbance. An EPSL for development are issued by Natural England under Regulation 53(2)(e) of The Conservation of Habitats and Species Regulations (2019). This application process can take up to six weeks.
- 4.4.11 The Site was considered to provide suitable commuting and foraging habitat for bats primarily along the mature treelines along the Site boundaries. No felling or heavy pruning works to any of these trees are anticipated. Furthermore, these features are not considered to function as an important corridor for bats given the large network of connected woodland 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.
- 4.4.12 It is recommended that any new artificial lighting associated with the proposed development aims to:
- Maintain a dark corridor along the treeline along the western boundary of plot 1 and along the treeline along the southern boundary of plot 2;
 - 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 luminaires 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.

Hazel Dormice

- 4.4.13 Hazel dormice 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.
- 4.4.14 Overall four dormice records were identified within the zone of influence as part of the desk study. The nearest of which was located approximately 500m south-west of the Site.
- 4.4.15 Semi-natural habitats within the Site, namely the treelines bordering the Site and the parcel of semi-natural broadleaved woodland within the western corner of plot 1, were considered to provide foraging, commuting and nest building opportunities to dormice.
- 4.4.16 The treelines bordering the Site and woodland parcel are anticipated to be retained and protected as part of the proposed development. Given the above, the proposed development is considered highly unlikely to result in the death or injury to dormice or result in the damage or destruction of a dormouse breeding site or resting place.
- 4.4.17 However, as a precaution, it is recommended that a systematic fingertip search be conducted by a suitably qualified ecologist to search all areas of sub-optimal habitat (i.e. parcels of introduced shrubs) that are to be lost, to search for dormice, including nests. The fingertip search will need to be conducted immediately prior to any vegetation removal and should be conducted during the months of April–October when dormice are most active.
- 4.4.18 In the unlikely event that dormice, or evidence of dormice are found, all work must stop, and advice sought from a suitably qualified ecologist. It should be noted that should a dormouse or nest be found, a EPSM licence may be required to permit works that would potentially cause disturbance, damage or destruction of habitat or individuals. An EPSL for development are issued by Natural England under Regulation 53(2)(e) of The Conservation of Habitats and Species Regulations (2019). This application process can take up to six weeks.

Great Crested Newts and other Amphibians

- 4.4.19 Great crested newts (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 are also listed as SPI under the NERC Act 2006.
- 4.4.20 Overall 12 GCN records were identified within the zone of influence as part of the desk study. The nearest of which was located approximately 150m north of the Site, indicating that GCN are likely present within the immediate and wider landscape.
- 4.4.21 No waterbodies were identified within the Site. On this basis the Site was considered to provide negligible breeding opportunities for breeding GCN.

- 4.4.22 The Site supported habitats and features, which provided potential foraging and commuting opportunities for GCN (and other amphibian species) during their terrestrial lifecycle phase. Numerous features across the Site, such as log/brush piles, also provided over-wintering hibernation opportunities to GCN (and other amphibian species).
- 4.4.23 A single waterbody (P1) was located immediately adjacent the Site. A GCN HSI assessment undertaken on this waterbody identified it as being of 'good' habitat suitability to support breeding GCN.
- 4.4.24 A further four waterbodies (P2, P3, P4 & P5) were identified within a 250m radius of the Site as part of the desk study. The location of these waterbodies is presented in Appendix IV.
- 4.4.25 Overall, the proposed development could result in adverse direct impacts on GCN, resulting in the death or injury, or disturbance to GCN during their terrestrial life-cycle phase. In addition, given the close proximity of waterbody P1, the proposed development could also result in adverse indirect impacts to GCN during their aquatic life-cycle phase, for example by causing the damage of a GCN breeding place as a result of pollution incidents and surface run-off into waterbody P1.
- 4.4.26 Further surveys are therefore required to determine presence or likely absence of GCN to determine any subsequent requirements for mitigation, compensation and/or licences to facilitate the proposed development.
- 4.4.27 In the first instance a GCN HSI assessment of all other waterbodies within 250m of the Site should be undertaken to determine the value and potential of waterbodies P2, P3, P4 and P5 to support breeding GCN.
- 4.4.28 As a minimum, GCN presence/likely absence surveys must be undertaken on waterbody P1. However, depending on the results of the HSI assessment, it may also be necessary to undertake GCN presence/likely absence surveys on the other waterbodies identified within a 250m radius of the Site.
- 4.4.29 GCN presence/likely absence surveys comprise a minimum of four survey visits during the period mid-March to mid-June with at least two of these visits during mid-April to mid-May and with the visits spread throughout the survey period. Should GCN presence be confirmed then two additional survey visits will be required in order to determine the population size class, with at least one of these additional survey visits being undertaken between mid-April and mid-May. Another survey technique which has been approved by Natural England and can be used for determining GCN presence/likely absence is eDNA water testing. This technique detects pond occupancy from GCN by analysing traces of GCN DNA shed into the pond environment (eDNA). This technique is recommended when a full suite of traditional GCN presence/likely absence surveys cannot be undertaken, for example when the key survey windows are missed. However, this technique cannot be used to ascertain population size; therefore, in the event that GCN DNA is recorded within any waterbodies, traditional survey techniques must still be used to obtain population data.
- 4.4.30 It should be noted that should a GCN be found, a EPSM licence may be required to permit works that would potentially cause disturbance, damage or destruction of habitat or individuals. An EPSL for development are issued by Natural England under Regulation

53(2)(e) of The Conservation of Habitats and Species Regulations (2019). This application process can take up to six weeks.

Reptiles

- 4.4.31 Native, widespread reptile species (common or viviparous lizard *Zootoca vivipara*, adder *Vipera berus*, grass snake 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.
- 4.4.32 Overall three reptile records, comprising solely grass snake, were identified within the zone of influence as part of the desk study. The nearest of which was located approximately 600m east of the Site.
- 4.4.33 The majority of semi-natural habitats within the Site including isolated parcels of introduced shrubs and amenity grassland provided very limited foraging, basking and shelter opportunities to reptiles. Areas of suitable habitat were largely restricted to some of the rougher grassland parcels within plot 1 and along the mature treelines along the Site boundaries.
- 4.4.34 In addition to the above, numerous features across the Site, such as log/brush piles also provided over-wintering hibernation opportunities to reptiles.
- 4.4.35 Given the above, works associated with any proposed development of the Site, for example habitat clearance, could therefore result in the death or injury of any reptiles present within the Site. However, given the size of the Site and nature of the proposed development, indirect adverse effects upon reptiles are considered unlikely as long as the following precautionary measures are adhered to during development.
- 4.4.36 It is recommended that habitat clearance particularly around the introduced shrub and pond margins 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 must be carried out under the direction and supervision of a suitably qualified ecologist. The timing of vegetation clearance works should coincide with reptiles being active (generally in dry, warm weather and greater than 9°C air temperature).
- 4.4.37 As a further precaution, any excavation works or actions that would impact upon potential reptile hibernation features, such as log piles, must be carried out outside the reptile hibernation season (i.e. between April – October inclusive) when reptiles are considered active (generally greater than 9°C air temperature).
- 4.4.38 It should be noted that the precautionary sensitive clearance methodology detailed above may be subject to change depending on the findings of the further GCN surveys.

Birds

- 4.4.39 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.

- 4.4.40 Overall 23 bird species listed on Schedule 1 (Part 1) of the Wildlife and Countryside Act 1981 (as amended) were identified within the zone of influence as part of the desk study. These included red kite, peregrine and barn owl. Many other notable bird species listed as SPIs were also identified within the zone of influence as part of the desk study, including song thrush, house sparrow and cuckoo.
- 4.4.41 The Site supported treelines, a dense leylandii hedgerow and stands of introduced shrub, which were considered to provide good nesting and foraging opportunities to a wide range of common bird species.
- 4.4.42 Habitat clearance works associated with the proposed development, namely the removal of a small section of treeline intersecting the Site, could 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.
- 4.4.43 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).
- 4.4.44 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.
- 4.4.45 It is important to note that the avoidance, mitigation and compensation measures detailed above may be subject to change depending on the findings of the recommended and GCN surveys.

Badgers

- 4.4.46 Badgers *Meles meles* and their setts are protected under The Badger Act (1992).
- 4.4.47 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.
- 4.4.48 The majority of semi-natural habitats within the Site were considered to provide very limited sett building and foraging and commuting opportunities for badgers given the flat topography and absence of suitable habitat. However, the parcel of semi-natural broadleaved woodland within the western corner of plot 1 provided good sett building and foraging and commuting opportunities for badgers given the sloped topography and suitable woodland habitat.

- 4.4.49 Given the absence of setts within the Site and within 30m of the Site boundary the proposed development is considered 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.
- 4.4.50 However, given the suitable foraging and commuting habitat within the Site, namely the parcel of semi-natural broadleaved woodland within the western corner of plot 1, 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.
- 4.4.51 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.
- 4.4.52 During construction works, all excavations should be excavated individually and back filled immediately after where possible. Where this is not possible excavations must be covered to prevent badgers (or other animals) becoming trapped within the excavation. If this is not possible, one or both sides of the excavation must be sloped in order to allow egress from the excavation.

Other Mammal Species

- 4.4.53 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.
- 4.4.54 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.
- 4.4.55 No water vole records were identified within the zone of influence as part of the desk study.
- 4.4.56 No suitable aquatic and very limited suitable terrestrial habitat was recorded within the Site.
- 4.4.57 On this basis and given the absence of desk study records, 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.
- 4.4.58 The European hedgehog 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.
- 4.4.59 Overall six European hedgehog records were identified within the zone of influence as part of the desk study. The nearest of which was located approximately 850m east of the Site, indicating that they are very likely present within the wider landscape.
- 4.4.60 Semi-natural habitats within the Site, including the woodland and garden lawns provided foraging and shelter opportunities for 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 and providing mitigation measures detailed below are adhered to.

- 4.4.61 Hedgehogs should be specifically watched for during the removal of features considered to provide potential sheltering habitat (i.e. log/brush piles). If any hedgehogs are found, they should be carefully moved to retained areas of vegetation outside of the Site.
- 4.4.62 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.

Invertebrates

- 4.4.63 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.
- 4.4.64 A single protected invertebrate species listed under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended), namely the purple emperor, was identified within the zone of influence as part of the desk study. Multiple notable invertebrate species listed as SPI under the NERC Act 2006 were also identified within the zone of influence as part of the desk study, including small heath and white admiral.
- 4.4.65 All protected invertebrate species listed on Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended) identified within the zone of influence as part of the desk study are considered likely absent from the Site as their preferred food plants were either absent or not recorded in sufficient quantity to otherwise support a viable population.
- 4.4.66 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 herb-rich grassland. Although woodland was recorded within the Site, all woodland is anticipated to be retained and protected as part of the proposed development. However, without appropriate avoidance and mitigation measures in place, the proposed development could result in adverse indirect impacts (primarily increases in artificial lighting) on the local invertebrate population, notably night-flying insects such as moths. It is therefore recommended that a sensitive lighting strategy as previously described in paragraph 4.4.11 be implemented during the construction and operational phase of the proposed development.

Plants

- 4.4.67 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.

- 4.4.68 A single protected plant species listed in Schedule 8 of the Wildlife and Countryside Act 1981 (as amended), namely the bluebell, was identified within the zone of influence as part of the desk study. A single notable plant species listed as SPI under the NERC Act 2006, namely pennyroyal, was identified within the zone of influence as part of the desk study.
- 4.4.69 The habitats on Site were common and widespread and therefore provided limited potential to support protected and notable and rare plant species.
- 4.4.70 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*.
- 4.4.71 No Schedule 9 non-native invasive plant species were recorded within the Site.
- 4.4.72 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 Mid Sussex District Plan 2014–2031 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 southeasterly 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 (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.
 - Planting of native species rich hedgerows along the Site and plot boundaries. In addition, the existing hedgerows along the eastern and northern Site boundaries and treelines along the southern and western Site boundaries could be supplemented with additional native woody species (other than hawthorn *Crataegus monogyna* and blackthorn *Prunus spinosa*) to encourage transition to a species-rich hedgerow. 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 bacatta*;
 - Oak;
 - Hazel;
 - Hawthorn;
 - Blackthorn;
 - Field maple *Acer campestre*;
 - Holly;
 - Hornbeam *Carpinus betulus*;
 - Beech *Fagus sylvatica*; and
 - Crab apple *Malus domestica*.
- Creation of areas of species-rich meadow grassland within the Site. These areas could provide additional foraging and shelter opportunities for a wide variety of invertebrates, reptiles, amphibians and bird and bat species. Plant species to be included within the wildflower seed mix should be appropriate for the Site and wider area. A wildflower seed mixture should be sown on the site in March, April or September. Once established, the grassland should be maintained via annual seed cutting in the autumn, following seed setting and use of pesticides, fertilizers or other chemicals, avoided.
 - Incorporation of dead wood habitat piles within areas of retained suitable habitat for example underneath tree canopies, adjacent parcels of dense shrubs 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.

Biodiversity Net Gain

- 4.5.2 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.
- 4.5.3 The enhancement recommendations detailed above provide a qualitative opinion-based assessment of how the development can achieve an overall net gain in biodiversity.
- 4.5.4 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.
- 4.5.5 The NPPF 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.

- 4.5.6 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.

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Date: 09/08/2022

6 APPENDICES

APPENDIX I: SITE LOCATION PLAN



LEGEND:

— Site Boundary

STATUS: FOR INFORMATION ONLY



PJC
Consultancy
Arboricultural, Ecological
& Landscape Consultancy

Sussex Office: Rocks Yard, Victoria Rd, Hellingdon, Haslemere, BN27 4TQ.
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T: 01233 225955
E: enquiries@pjcconsultancy.com
W: <https://www.pjcconsultancy.com>

CLIENT: Balcombe Estate

PROJECT: Townhouse Farm
Church Lane
Ardingly
East Sussex

TITLE: Appendix I:
Site Location Plan

SCALE AT A4:	DRAWN:	APPROVED:
1:1600	TK	TK
PROJECTION:	DATE:	DATE:
EPSG:3857	08/04/21	08/04/21
DRAWING No:	PJC/4531/E/1/N/1	

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/EEC) 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 borellii 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 license 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

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 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) 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.”

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.

Mid Sussex District Plan 2014–2031

The Mid Sussex District Plan 2014–2031 sets out the relevant policies for the control of development with regards to the natural environment and biodiversity.

DP17: Ashdown Forest Special Protection Area (SPA) and Special Area of Conservation (SAC)

Strategic Objectives: 3) To protect valued landscapes for their visual, historical and biodiversity qualities.

Evidence Base: Ashdown Forest Visitor Survey Data Analysis, Habitats Regulations Assessment for the Mid Sussex District Plan, Visitor Access Patterns on Ashdown Forest.

In order to prevent adverse effects on the Ashdown Forest SPA and SAC, new development likely to have a significant effect, either alone or in combination with other development, will be required to demonstrate that adequate measures are put in place to avoid or mitigate any potential adverse effects.

Within a 400 metres buffer zone around Ashdown Forest, mitigation measures are unlikely to be capable of protecting the integrity of the SPA and, therefore, residential development will not be permitted.

Within a 7km zone of influence around the Ashdown Forest SPA, residential development leading to a net increase in dwellings will be required to contribute to mitigation through:

- 1) The provision of Suitable Alternative Natural Greenspace (SANG) to the minimum level of 8Ha per 1,000 net increase in population; or a financial contribution to SANGs elsewhere; or the provision of bespoke mitigation; and
- 2) A financial contribution to the Ashdown Forest Strategic Access Management and Monitoring (SAMM) Strategy.

Large schemes proposed adjacent or close to the boundary of the 7km zone of influence may require mitigation for the SPA. Such proposals for development will be dealt with on a case-by-case basis.

Where bespoke mitigation is provided, these measures will need to be in place before occupation of development and must be managed and maintained in perpetuity. The effectiveness of such mitigation will need to be demonstrated prior to approval of the development. Bespoke mitigation will need to be discussed and agreed by the District Council as the competent authority following advice from Natural England.

DP37: Trees, Woodland and Hedgerows

Strategic Objectives: 3) To protect valued landscapes for their visual, historical and biodiversity qualities; 4) To protect valued characteristics of the built environment for their historical and visual qualities; and 5) To create and maintain easily accessible green infrastructure, green corridors and spaces around and within the towns and villages to act as wildlife corridors, sustainable transport links and leisure and recreational routes.

Evidence Base: Green Infrastructure mapping; Mid Sussex Ancient Woodland Survey, Tree and Woodland Management Guidelines, Tree Preservation Order records.

The District Council will support the protection and enhancement of trees, woodland and hedgerows, and encourage new planting. In particular, ancient woodland and aged or veteran trees will be protected.

Development that will damage or lead to the loss of trees, woodland or hedgerows that contribute, either individually or as part of a group, to the visual amenity value or character of an area, and/ or that have landscape, historic or wildlife importance, will not normally be permitted.

Proposals for new trees, woodland and hedgerows should be of suitable species, usually native, and where required for visual, noise or light screening purposes, trees, woodland and hedgerows should be of a size and species that will achieve this purpose.

Trees, woodland and hedgerows will be protected and enhanced by ensuring development:

- incorporates existing important trees, woodland and hedgerows into the design of new development and its landscape scheme; and
- prevents damage to root systems and takes account of expected future growth; and
- where possible, incorporates retained trees, woodland and hedgerows within public open space rather than private space to safeguard their long-term management; and
- has appropriate protection measures throughout the development process; and •
- takes opportunities to plant new trees, woodland and hedgerows within the new development to enhance on-site green infrastructure and increase resilience to the effects of climate change; and
- does not sever ecological corridors created by these assets.

Proposals for works to trees will be considered taking into account:

- the condition and health of the trees; and
- the contribution of the trees to the character and visual amenity of the local area; and
- the amenity and nature conservation value of the trees; and
- the extent and impact of the works; and
- any replanting proposals.

The felling of protected trees will only be permitted if there is no appropriate alternative. Where a protected tree or group of trees is felled, a replacement tree or group of trees, on a minimum of a 1:1 basis and of an appropriate size and type, will normally be required. The replanting should take place as close to the felled tree or trees as possible having regard to the proximity of adjacent properties.

Development should be positioned as far as possible from ancient woodland with a minimum buffer of 15 metres maintained between ancient woodland and the development boundary.

DP38: Biodiversity

Strategic Objectives: 3) To protect valued landscapes for their visual, historical and biodiversity qualities; and 5) To create and maintain easily accessible green infrastructure, green corridors and spaces around and within the towns and villages to act as wildlife corridors, sustainable transport links and leisure and recreational routes.

Evidence Base: Biodiversity 2020; Biodiversity Action Plan; Biodiversity Opportunity Areas; Green Infrastructure mapping; Habitats and Species Records; Mid Sussex Ancient Woodland Survey; Mid Sussex Infrastructure Delivery Plan; The Natural Choice: Securing the Value of Nature; West Sussex SSCI Register.

Biodiversity will be protected and enhanced by ensuring development:

- Contributes and takes opportunities to improve, enhance, manage and restore biodiversity and green infrastructure, so that there is a net gain in biodiversity, including through creating new designated sites and locally relevant habitats, and incorporating biodiversity features within developments; and
- Protects existing biodiversity, so that there is no net loss of biodiversity. Appropriate measures should be taken to avoid and reduce disturbance to sensitive habitats and species. Unavoidable damage to biodiversity must be offset through ecological enhancements and mitigation measures (or compensation measures in exceptional circumstances); and
- Minimises habitat and species fragmentation and maximises opportunities to enhance and restore ecological corridors to connect natural habitats and increase coherence and resilience; and
- Promotes the restoration, management and expansion of priority habitats in the District; and
- Avoids damage to, protects and enhances the special characteristics of internationally designated Special Protection Areas, Special Areas of Conservation; nationally designated Sites of Special Scientific Interest, Areas of Outstanding Natural Beauty; and locally designated Sites of Nature Conservation Importance, Local Nature Reserves and Ancient Woodland or to other areas identified as being of nature conservation or geological interest, including wildlife corridors, aged or veteran trees, Biodiversity Opportunity Areas, and Nature Improvement Areas.

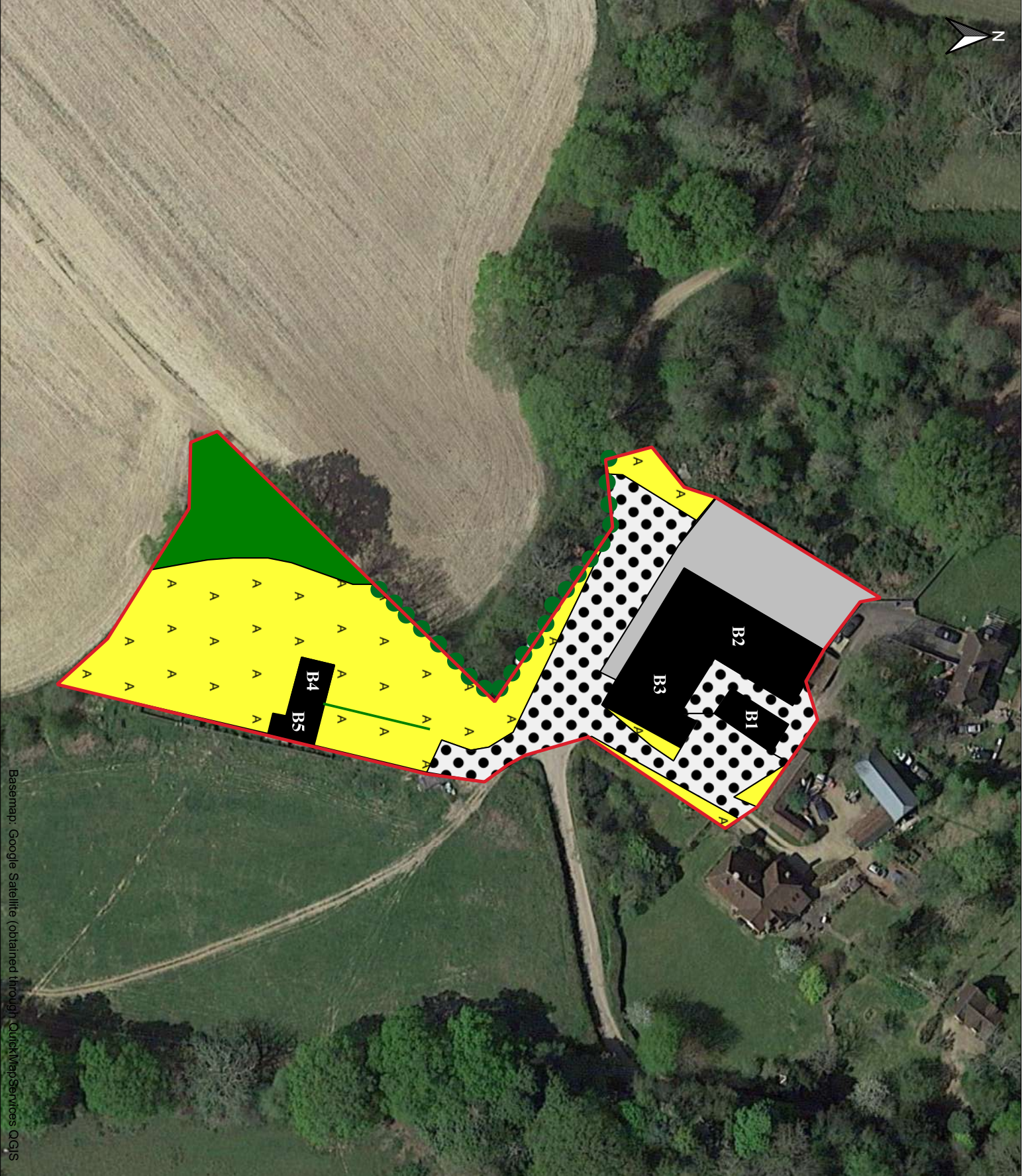
Designated sites will be given protection and appropriate weight according to their importance and the contribution they make to wider ecological networks.

Valued soils will be protected and enhanced, including the best and most versatile agricultural land, and development should not contribute to unacceptable levels of soil pollution.

Geodiversity will be protected by ensuring development prevents harm to geological conservation interests, and where possible, enhances such interests. Geological

conservation interests include Regionally Important Geological and Geomorphological Sites.

APPENDIX III: PHASE 1 HABITAT MAP



LEGEND:

- J2.1.2 - Species-poor hedge
- Site Boundary
- A1.1.1 - Broadleaved woodland
- J1.2 - Amenity grassland
- J3.6 - Buildings
- J4 - Bare ground
- J5 - Other habitat

STATUS: FOR INFORMATION ONLY

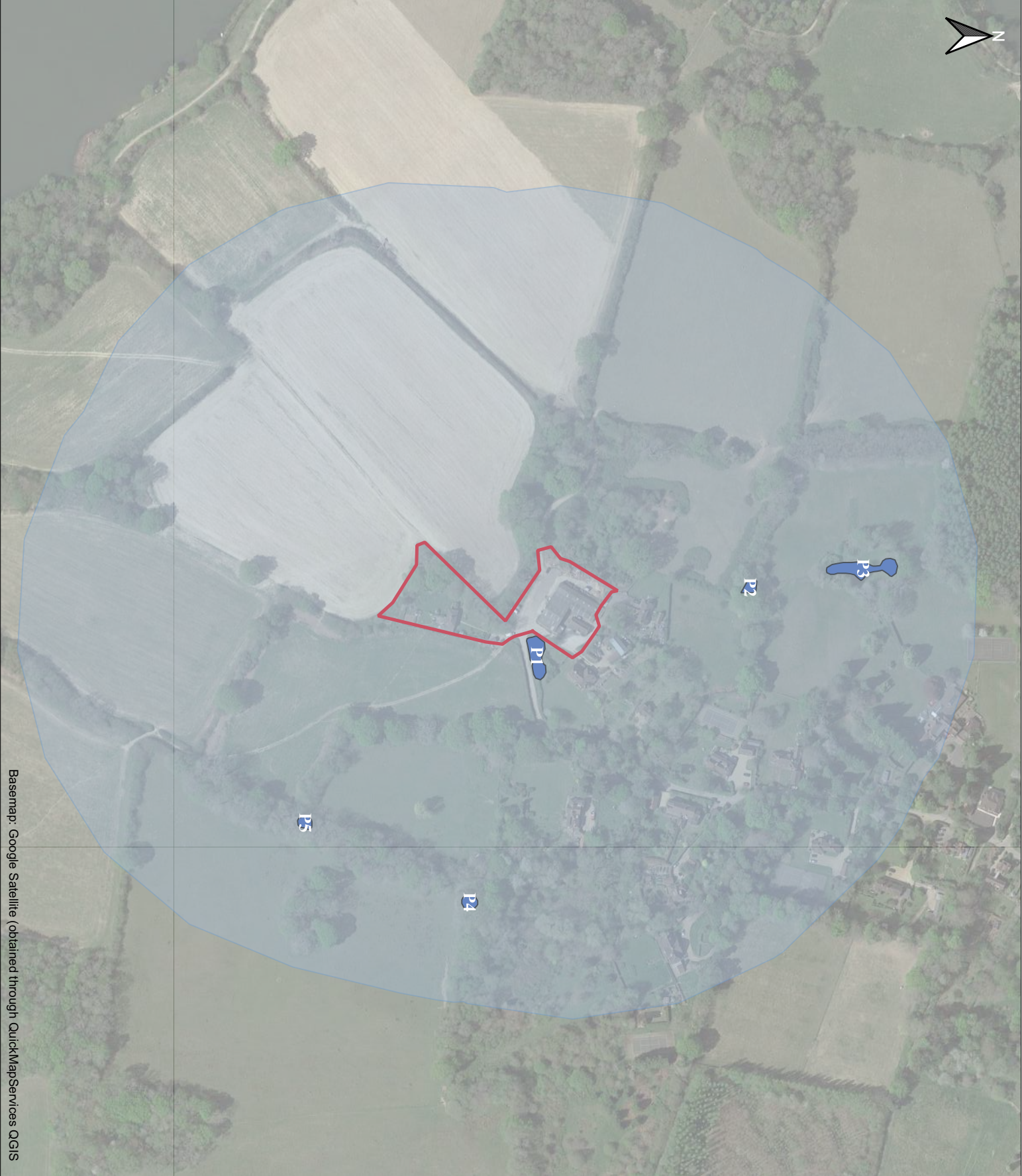


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CLIENT: Balcombe Estate		
PROJECT: Townhouse Farm Church Lane Ardingly East Sussex		
TITLE: Appendix III: Phase 1 Habitat Map		
SCALE AT A4: 1:1600	DRAWN: TK	APPROVED: TK
PROJECTION: EPSG:3857	DATE: 08/04/21	DATE: 08/04/21
DRAWING No: PJC/4531E/A3/V1		

APPENDIX IV: WATERBODY LOCATION PLAN



LEGEND:

- 250m Buffer
- Site Boundary
- Waterbodies

STATUS: FOR INFORMATION ONLY



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

CLIENT: Balcombe Estate

PROJECT: Townhouse Farm
Church Lane
Ardingly
East Sussex

TITLE: Appendix IV: Waterbody Location Plan		
SCALE AT A4: 1:5000	DRAWN: TK	APPROVED: TK
PROJECTION: EPSG:3857	DATE: 08/04/21	DATE: 08/04/21
DRAWING No: PJC/4531E/A4/V1		

APPENDIX V: SITE PHOTOS



Photograph 1: Eastern elevation of building B1 (Photograph taken by Thomas Knight 17th March 2021).



Photograph 2: Southern elevation of building B2 & B3 (Photograph taken by Thomas Knight 17th March 2021).



Photograph 3: Northern elevation of building B4 & B5 (Photograph taken by Thomas Knight 17th March 2021).



Photograph 4: Woodland parcel within western corner of plot 1 (Photograph taken by Thomas Knight 17th March 2021).



Photograph 5: Waterbody P1 (Photograph taken by Thomas Knight 17th March 2021).



Photograph 6: Typical formal lawn forming the rear garden of building B5 (Photograph taken by Thomas Knight 17th March 2021).