



Preliminary Ecological Appraisal

Land to the north of the Old Brickworks, Henfield

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LIABILITIES:

Whilst every effort has been made to guarantee the accuracy of this report, it should be noted that living animals and plants are capable of migration/establishing and whilst such species may not have been located during the survey duration, their presence may be found on a site at a later date.

This report provides a snap shot of the species that were present at the time of the survey only and does not consider seasonal variation. Furthermore, where access is limited or the site supports habitats which are densely vegetated only dominant species may be recorded.

The recommendations contained within this document are based on a reasonable timeframe between the completion of the survey and the commencement of any works. If there is any delay between the commencement of works that may conflict with timeframes laid out within this document, or have the potential to allow the ingress of protected species, a suitably qualified ecologist should be consulted.

It is the duty of care of the landowner/developer to act responsibly and comply with current environmental legislation if protected species are suspected or found prior to or during works.

1.0 Introduction

Background

1.1 The Ecology Partnership Ltd was commissioned by DMH Stallard Ltd to undertake a Preliminary Ecological Appraisal (PEA) on the land to the north of The Old Brickworks, Shoreham Road, Henfield, BN5 9SE.

1.2 The key objectives of a PEA (CIEEM 2017) are to:

- Identify the likely ecological constraints associated with a project;
- Identify any mitigation measures likely to be required, following the 'Mitigation Hierarchy' (CIEEM 2016; BSI 2013, Clause 5.2);
- Identify any additional surveys that may be required to inform an Ecological Impact Assessment (EcIA); and
- Identify the opportunities offered by a project to deliver ecological enhancement.

1.3 This report comprises:

- The legislative and planning context (Section 1);
- Assessment methodologies (Section 2);
- Results (Section 3);
- Implications for development, including an impact assessment (Sections 4 and 5);
- Conclusions (Section 6).

Site Context

1.4 The site is located on the western side of the A2037, south of the town of Henfield, and is approximately 3.27ha in size. The site is a series of horse grazed pasture fields, bordered by a mixture of scrub and hedgerows. It is set within an agriculturally dominated landscape, both pasture and arable, with areas of woodland, scrub and mature hedgerows/treelines between, as well as low-density rural residential settlements.

1.5 The aerial photograph (Figure 1) shows the site and its immediate surroundings. The red-line depicts the approximate site boundary and survey area.



Figure 1: Approximate location of the site, indicated by the red-line boundary.

Description of Proposed Development

- 1.6 The proposals for site are to redevelop the eastern and northern fields. Twelve new commercial units are planned, alongside their associated parking, access and landscaping. The westernmost field and a portion of the adjacent one are to be retained as green space for biodiversity net gain enhancement.

Relevant Planning Policies and Legislation

- 1.7 The site was surveyed to assess its ecological value and to ensure the proposals were compliant with relevant planning policy and legislation. Policy guidance is provided by the National Planning Policy Framework (NPPF 2023) as well as relevant planning policies from the Horsham District Planning Framework (2015). The Horsham District Planning Framework (2015) provides a framework for planning decisions in the borough. Policies relevant to biodiversity and environmental protection have been included below:

Horsham District Planning Framework:

- Policy 31 - Green Infrastructure and Biodiversity

- 1.8 It is also noted that a new Horsham District Local Plan 2023-2040 is currently under Regulation 19 review, prior to submission to the Secretary of State. This plan could come into effect this year and has separate policies which could provide a framework for planning decisions in the district:

Horsham District Local Plan 2023 – 40

- Strategic Policy 13 – The Natural Environment and Landscape Character
- Strategic Policy 14 – Countryside Protection
- Strategic Policy 17 – Green Infrastructure and Biodiversity

- 1.9 The Environment Bill received Royal Assent on 9th November 2021 and is now enacted as the Environment Act 2021. Part 6 (Nature and Biodiversity) and Schedule 14 of the Environment Act 2021 insert a new section 90A and Schedule 7A into the Town and Country Planning Act 1990 (TCPA), which contain the provisions requiring mandatory biodiversity net gain for development granted planning permission pursuant to the TCPA. These provisions require developments to provide a biodiversity value post-development that exceeds the predevelopment biodiversity value of the onsite habitats by at least 10%. This was adopted in February 2024 although there are a number of exemptions which may mean that biodiversity net gain is not required. These are listed under government guidance as well as on the Windsor and Maidenhead website and are as follows:

- Development below a de minimis threshold;
- Householder applications;
- Small scale self-build and custom housebuilding;
- HS2; and
- Biodiversity net gain sites.

- 1.10 This report addresses the site in relation to nature conservation and wildlife, and the local planning requirements as well as national planning and nature conservation legislation.

- 1.11 The site was surveyed by The Ecology Partnership to assess its ecological value and to ensure compliance with national and local plan policies. This report has been produced with reference to current guidelines for preliminary ecological appraisal (CIEEM 2017) and in accordance with BS 42020:2013 Biodiversity – Code of Practice for Planning and Development.

2.0 Methodology

Desktop Study

- 2.1 A desktop study search was completed using an internet-based mapping service (www.magic.gov.uk) for statutory designated sites and an internet-based aerial mapping service (www.earth.google.co.uk) was used to understand the habitats present in and around the survey area and habitat linkages and features (ponds, woodlands etc) within the wider landscape.

Preliminary Ecological Appraisal

- 2.2 A Preliminary Ecological Appraisal was undertaken by The Ecology Partnership's Matthew Pendry BSc (Hons) MCIEEM and Edward Simpson BSc (Hons) MSc on 28th November 2023. The surveyors identified the habitats present, following the standard 'Phase 1 habitat survey' auditing method developed by the Joint Nature Conservancy Council (JNCC). The site was surveyed on foot and the existing/ retrospective habitats and land uses were recorded on an appropriately scaled map (JNCC 2010). In addition, the dominant plant species in each habitat were recorded. The potential for the site to support protected species was also assessed.
- 2.3 Grassland habitat assessments were not fully possible during the November visit, given the season. These assessments were updated on 22 July 2024, by Matthew Pendry BSc (Hons) MCIEEM and are representative of the grassland presented in this report.

Protected Species Assessments

- 2.4 Any evidence of protected species was recorded. Standard methods of search and measures of presence, or likely presence based on habitat suitability were used for bats in trees and buildings (Collins 2023), breeding birds (BTO 2020), dormouse (Bright *et al.* 2006),

great crested newt (ARG 2010), reptiles (Froglife 2015), [REDACTED] (Creswell *et al.* 1990) and water voles (Strachan *et al.* 2011).

Limitations

- 2.5 It should be noted that whilst every effort has been made to provide a comprehensive description of the site, no single investigation could ensure the complete characterisation and prediction of the natural environment. The site was visited over the period of one site visit, as such seasonal variations cannot be observed and potentially only a selection of all species that potentially occur within the site have been recorded. Therefore, the survey provides a general assessment of potential nature conservation value of the site and does not include a definitive plant species list
- 2.6 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. The assessment is only valid for the time when the survey was carried out. Additional surveys may be recommended if, on the basis of this assessment it is considered reasonably likely that protected species may be present.

3.0 Results

Desktop Study

- 3.1 There are no internationally designated sites within 15km of the proposed development site. There is one national statutory designated site located within 2km of the site (Figure 2), Tottington Wood LNR, located approximately 1.3km south of site.
- 3.2 There are six non-statutory sites within 2km of the site boundary, these are all Local Wildlife Sites (LWS's):
- Oreham Common LWS, located approximately 280m east of site;
 - Hoe Wood LWS, located approximately 310m south of site;
 - Broadmare Common LWS, located approximately 450m north of site;
 - Henfield Common LWS, located approximately 970m north of site;
 - Tottington Wood LWS, located approximately 1.3km south of site;

- River Adur Water Meadows and Wyckham Wood LWS, located approximately 1.5km west of site.

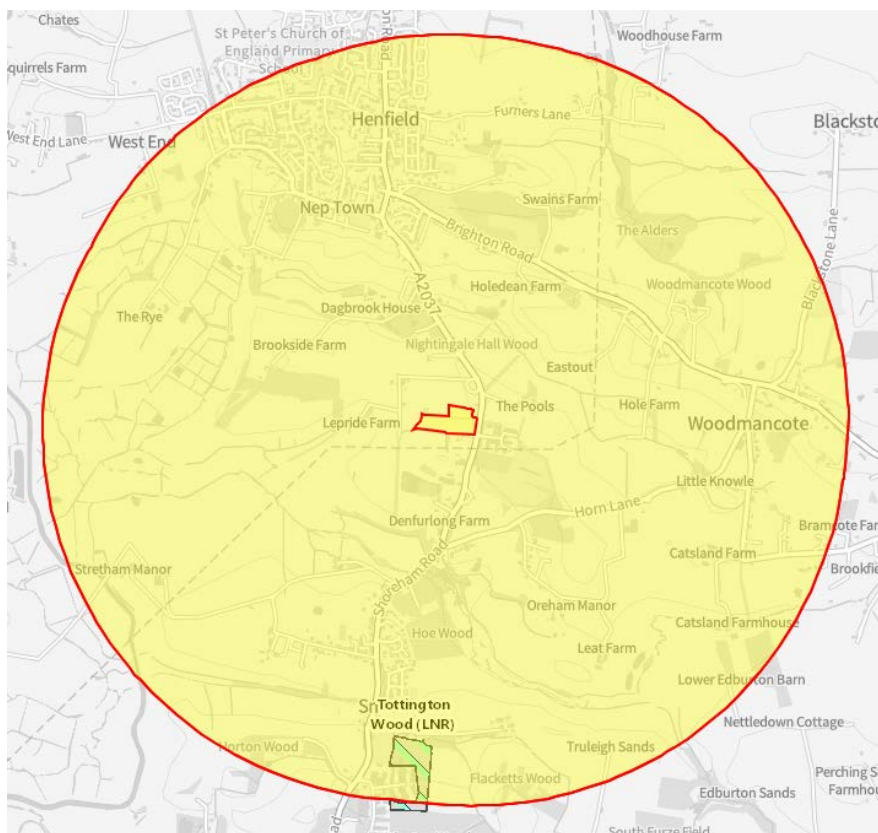


Figure 2: Nationally designated sites located within 5km of the site.

3.3 There were five notable or priority habitats identified within 2km of site (Figure 3), including:

- Deciduous woodland, the nearest of which was located directly on the southern site boundary;
- Ancient and semi-natural woodland, the nearest of which was located 90m south-east of site, across the A2037;
- Traditional orchard, the nearest of which was located approximately 247m west of site;
- Coastal and floodplain grazing marsh, the nearest of which was located approximately 615m south-west of site;
- Lowland fen, located approximately 1.88km south-west of site.



Figure 4: Ancient and semi-natural woodland (vertical hatches), deciduous woodland (forest green), coastal floodplain and grazing marsh (light blue), traditional orchard (lighter green), and lowland fens (red/pink), within 2km of the site.

- 3.4 There were no ponds located directly on site, however, seven ponds were identified within 250m of site.



Figure 5: Waterbodies within 250m from the site.

3.5 A 2km records search was requested from SxBRC. The records closest to site, recorded within the last 10 years and relevant to the habitats on site have been included in Table 1.

Table 1: Species records within 1km of the site boundary in the past 10 years

Species	Status	Distance from site (closest record)	Date of most recent record
Common toad (<i>Bufo bufo</i>)	NERC S41, UK BAP Priority	500m S	31/08/2018
Great-crested newt (<i>Triturus cristatus</i>)	Habs. Dir. A2 NP, Habs. Dir. A4, Hab. Regs Sch2, WaCA Sch5 s9.4b and 9.4b, UK BAP Priority	320m S	19/03/2022
Flea's ear (<i>Chlorencoelia versiformis</i>)	NERC S41, UK BAP Priority	1.4km S	02/11/2022
Tubular water-dropwort (<i>Oenanthe fistulosa</i>)	NERC S41, UK BAP Priority	Within 2km	02/09/2015
Sharp-leaved Pond weed (<i>Potamogeton acutifolius</i>)	NERC S41, UK BAP Priority	1.12km W	06/07/2014
Greater water-parsnip (<i>Sium latifolium</i>)	NERC S41, UK BAP Priority	1.05km W	02/09/2015

Bluebell (<i>Hyacinthoides non-scripta</i>)	WaCA Sch8	295m E	17/05/2021
Shimmering ruby-tail (<i>Chrysis fulgida</i>)	NERC S41, UK BAP Priority	1.4km N	29/05/2018
Scarce four-dot pin palp (<i>Bembidion quadripustulatum</i>)	NERC S41, UK BAP Priority	340m S	01/04/2014
Stag beetle (<i>Lucanus cervus</i>)	Habs. Dir. A2 NP, NERC S41, UK BAP Priority	1.3km N	14/05/2023
Small heath (<i>Coenonympha pamphilus</i>)	NERC S41, UK BAP Priority	395m W	10/06/2023
Dingy skipper (<i>Erynnis tages tages</i>)	NERC S41, UK BAP Priority	1.9km E	21/005/2020
Wall (<i>Lasiomata megera</i>)	NERC S41, UK BAP Priority	585m S	12/11/2022
White admiral (<i>Limenitis camilla</i>)	NERC S41, UK BAP Priority	405m S	07/08/2023
Brown hairstreak (<i>Thecla betulae</i>)	NERC S41, UK BAP Priority	335m S	17/09/2023
Grey dagger (<i>Acronicta psi</i>)	NERC S41, UK BAP Priority	1.7km N	24/07/2019
Knot grass (<i>Acronicta rumicis</i>)	NERC S41, UK BAP Priority	360m S	11/08/2023
Beaded chestnut (<i>Agrochola lychnidis</i>)	NERC S41, UK BAP Priority	360m S	04/10/2023
Green-brindled crescent (<i>Allophyas oxycanthae</i>)	NERC S41, UK BAP Priority	360m S	26/10/2022
Ear moth (<i>Amphipoea oculatea</i>)	NERC S41, UK BAP Priority	1.7km N	22/07/2022
Mouse moth (<i>Amphipyra tragopoginis</i>)	NERC S41, UK BAP Priority	1.7km N	28/07/2022
Deep-brown dart (<i>Aporophyla lutulenta</i>)	NERC S41, UK BAP Priority	360m S	28/09/2017
Garden tiger (<i>Arctia caja</i>)	NERC S41, UK BAP Priority	1.2km S	17/08/2023
Sprawler (<i>Asteroscopus sphinx</i>)	NERC S41, UK BAP Priority	360m S	17/08/2023
Centre-barred swallow (<i>Atethmia centrugo</i>)	NERC S41, UK BAP Priority	360m S	15/09/2023
Six-belted clearwing (<i>Bembecia ichneumoniformis</i>)	NERC S41, UK BAP Priority	1.24km S	16/07/2019
Minor shoulder-knot (<i>Brachylomia viminalis</i>)	NERC S41, UK BAP Priority	360m S	10/07/2019

Mottled rustic (<i>Caradrina morpheus</i>)	NERC S41, UK BAP Priority	360m S	22/06/2023
Light crimson underwing (<i>Catocala promisa</i>)	NERC S41, UK BAP Priority	1.78km NW	03/08/2023
Dark crimson underwing (<i>Catocala sponsa</i>)	NERC S41, UK BAP Priority	1.43km NW	17/07/2017
Broom moth (<i>Ceramica psi</i>)	NERC S41, UK BAP Priority	1.26km S	29/06/2015
Sallow (<i>Cirrhia icteritia</i>)	NERC S41, UK BAP Priority	360m S	27/09/2019
Oak lutestring (<i>Cymatophorina diluta</i>)	NERC S41, UK BAP Priority	1.7km NW	18/09/2019
Small square-spot (<i>Diarsia rubi</i>)	NERC S41, UK BAP Priority	360m S	02/09/2023
Figure of eight (<i>Diloba caeruleocephala</i>)	NERC S41, UK BAP Priority	360m S	29/10/2019
Small phoenix (<i>Ecliptopera silacaeta</i>)	NERC S41, UK BAP Priority	360m S	23/07/2023
September thorn (<i>Ennomos erosaria</i>)	NERC S41, UK BAP Priority	1.64km NW	07/09/2023
Dusky thorn (<i>Ennomos fuscantaria</i>)	NERC S41, UK BAP Priority	360m S	15/09/2023
Autumnal rustic (<i>Eugnorisma glareosa</i>)	NERC S41, UK BAP Priority	1.5km NW	29/09/2017
Jersey tiger (<i>Euplagia quadripunctaria</i>)	Habs. Dir. A2 NP	1.7km NW	14/08/2022
White spot (<i>Hadena albimacula</i>)	NERC S41, UK BAP Priority	1.7km NW	27/08/2017
Crescent (<i>Helotropha leucostigma</i>)	NERC S41, UK BAP Priority	1.7km NW	29/07/2022
Small emerald (<i>Hemistola chrys</i>)	NERC S41, UK BAP Priority	360m S	18/06/2020
Ghost moth (<i>Hepialus humuli</i>)	NERC S41, UK BAP Priority	360m S	12/07/2017
Rustic (<i>Holopdrina blanda</i>)	NERC S41, UK BAP Priority	360m S	20/07/2023
Rosy rustic (<i>Hydraecia micacea</i>)	NERC S41, UK BAP Priority	360m S	15/09/2023
Shoulder-striped wainscot (<i>Leucania comma</i>)	NERC S41, UK BAP Priority	360m S	12/07/2020

Rosy minor (<i>Litoligia literosa</i>)	NERC S41, UK BAP Priority	1.7km NW	01/08/2022
Brindled beauty (<i>Lycia hirtaria</i>)	NERC S41, UK BAP Priority	360m S	18/05/2023
Lackey (<i>Malacosoma Neustria</i>)	NERC S41, UK BAP Priority	360m S	26/06/2023
Dot moth (<i>Melanchra persicariae</i>)	NERC S41, UK BAP Priority	1.7km NW	07/07/2022
Lunar yellow underwing (<i>Noctua orboona</i>)	NERC S41, UK BAP Priority	1.5km NW	04/10/2017
Powdered quaker (<i>Orthosia gracilis</i>)	NERC S41, UK BAP Priority	360m S	19/04/2023
Large wainscot (<i>Rhizedra lutosa</i>)	NERC S41, UK BAP Priority	360m S	26/10/2022
Shaded broad-bar (<i>Scotopteryx chenopodiata</i>)	NERC S41, UK BAP Priority	360m S	02/08/2019
White ermine (<i>Spilosoma lubricipeda</i>)	NERC S41, UK BAP Priority	360m S	20/06/2023
Buff ermine (<i>Spilosoma lutea</i>)	NERC S41, UK BAP Priority	360m S	08/08/2023
Hedge rustic (<i>Tholera cespitis</i>)	NERC S41, UK BAP Priority	1.7km NW	03/09/2022
Feathered gothic (<i>Tholera decimalis</i>)	NERC S41, UK BAP Priority	360m S	08/09/2023
Blood-vein (<i>Timandra comae</i>)	NERC S41, UK BAP Priority	360m S	09/09/2023
Pale eggar (<i>Trichiura crataegi</i>)	NERC S41, UK BAP Priority	360m S	26/08/2023
Cinnabar (<i>Tyria jacobaea</i>)	NERC S41, UK BAP Priority	360m S	03/08/2023
Oak hook-tip (<i>Watsonalla binaria</i>)	NERC S41, UK BAP Priority	360m S	08/09/2023
Thin weblet (<i>Agyneta mollis</i>)	NERC S41, UK BAP Priority	640m S	22/09/2020
Broad groove-head spider (<i>Monocephalus castaneipes</i>)	NERC S41, UK BAP Priority	800m S	30/11/2019
Western European hedgehog (<i>Erinaceus europaeus</i>)	NERC S41, UK BAP	340m N	19/08/2023
Harvest mouse (<i>Micromys minutus</i>)	NERC S41, UK BAP	915m N	16/11/2019
Polecat (<i>Mustela putorius</i>)	NERC S41, UK BAP	210m S	14/07/2020
Slowworm (<i>Anguilla fragilis</i>)	WaCA Sch5 s9.1, NERC S41, UK BAP	530m S	19/06/2022

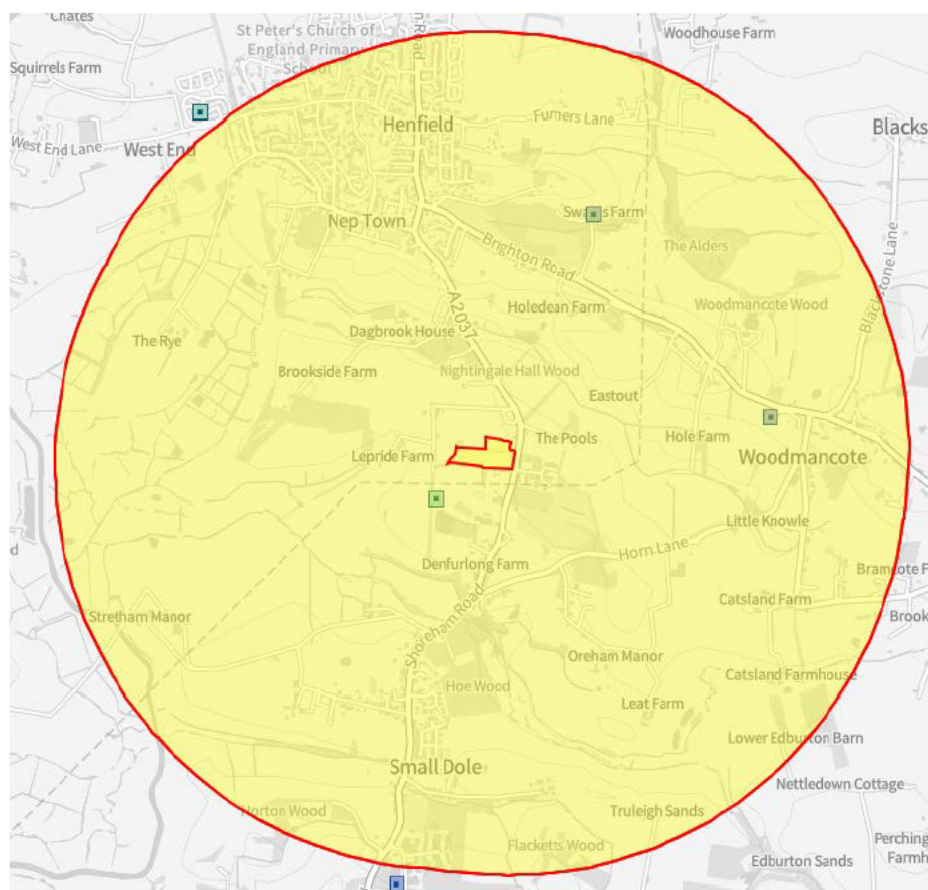
Grass snake (<i>Natrix helvetica</i>)	WaCA Sch5 s9.1, NERC S41, UK BAP	440m S	23/07/2022
Adder (<i>Vipera berus</i>)	WaCA Sch5 s9.1, NERC S41, UK BAP	1.2km SE	24/07/2017
Common lizard (<i>Zootaca vivipara</i>)	WaCA Sch5 s9.1, NERC S41, UK BAP	340m S	18/08/2022
White-tailed eagle (<i>Haliaeetus albicilla</i>)	Birds Dir. A1, WaCA Sch1 pt1	Within 2km	25/04/2022
Red kite (<i>Milvus milvus</i>)	Birds Dir. A1, WaCA Sch1 pt1	Within 2km	10/05/2023
White-fronted goose (<i>Anser albifrons</i>)	NERC S41, UK BAP Priority, UK BAP	Within 2km	12/03/2021
Scaup (<i>Aythya marila</i>)	WaCA Sch1 pt1, NERC S41, UK BAP	Within 2km	25/11/2022
Lapwing (<i>Vanellus vanellus</i>)	NERC S41, UK BAP Priority	Within 2km	12/06/2022
Herring gull (<i>Larus argentatus</i>)	NERC S41, UK BAP Priority	Within 2km	15/05/2014
Little egret (<i>Egretta garzetta</i>)	Birds Dir. A1	Within 2km	12/04/2014
Turtle dove (<i>Streptopelia turtur</i>)	NERC S41, UK BAP Priority	Within 2km	10/05/2023
Kingfisher (<i>Alcedo atthis</i>)	Birds Dir. A1, WaCA Sch1 pt1	Within 2km	04/07/2022
Cuckoo (<i>Cuculus canorus</i>)	NERC S41, UK BAP Priority	Within 2km	07/06/2022
Merlin (<i>Falco columbarius</i>)	Birds Dir. A1, WaCA Sch1 pt1	Within 2km	29/04/2021
Hobby (<i>Falco Subbuteo</i>)	WaCA Sch1 pt1	Within 2km	02/05/2022
Cetti's warbler (<i>Cettia cetti</i>)	WaCA Sch1 pt1	Within 2km	25/08/2022
Corn bunting (<i>Emberiza calandra</i>)	NERC S41, UK BAP Priority	Within 2km	05/05/2019
Yellowhammer (<i>Emberiza citronella</i>)	NERC S41, UK BAP Priority	Within 2km	08/07/2022
Reed bunting (<i>Emberiza schoeniclus</i>)	NERC S41, UK BAP Priority	Within 2km	04/07/2022
Lesser redpoll (<i>Acanthis cabaret</i>)	NERC S41, UK BAP Priority	Within 2km	March 2018 – June 2018
Hawfinch (<i>Coccothraustes coccothraustes</i>)	NERC S41, UK BAP Priority	Within 2km	04/04/2018
Linnet (<i>Linaria cannabina</i>)	NERC S41, UK BAP Priority	Within 2km	08/07/2022
Bullfinch (<i>Pyrrhula pyrrhula</i>)	NERC S41, UK BAP Priority	Within 2km	27/06/2022
Grasshopper warbler (<i>Locustella naevia</i>)	NERC S41, UK BAP Priority	Within 2km	09/05/2019

Bluethroat (<i>Luscinia svecica</i>)	Birds Dir. A1, WaCA	Within 2km	19/04/2017
Marsh tit (<i>poecile palustris</i>)	NERC S41, UK BAP Priority	Within 2km	08/04/2021
House sparrow (<i>Passer domesticus</i>)	NERC S41, UK BAP Priority	Within 2km	04/07/2022
Dunnock (<i>Prunella modularis</i>)	NERC S41, UK BAP Priority	Within 2km	04/07/2022
Firecrest (<i>Regulus ignicapilla</i>)	WaCa Sch1 pt1.	Within 2km	03/07/2022
Starling (<i>Sturnus vulgaris</i>)	NERC S41, UK BAP Priority	Within 2km	27/06/2022
Song thrush (<i>Turdus philomelos</i>)	NERC S41, UK BAP Priority	Within 2km	04/07/2022
Wryneck (<i>Jynx torquilla</i>)	WaCA Sch1 pt1., UK BAP Priority	Within 2km	02/05/2021
Short-eared owl (<i>Asio flammeus</i>)	Birds Dir. A1	Within 2km	05/05/2019
Barn owl (<i>Tyto alba</i>)	WaCA Sch1 pt1.	Within 2km	09/11/2021
Common pipistrelle (<i>Pipistrellus pipistrellus</i>)	Habs. Dir. A4, Habs. Reg. Sch 2, WaCA Sch 5 s9.4b/9.4c/s9.5a, NERC S41	Within 2km	27/07/2022
Soprano pipistrelle (<i>Pipistrellus pygmaeus</i>)	Habs. Dir. A4, Habs. Reg. Sch 2, WaCA Sch 5 s9.4b/9.4c/s9.5a, NERC S41	Within 2km	27/07/2022
Brown long-eared (<i>Plecotus auritus</i>)	Habs. Dir. A4, Habs. Reg. Sch 2, WaCA Sch 5 s9.4b/9.4c/s9.5a, NERC S41	Within 2km	22/11/2020
Noctule (<i>Nyctalus noctua</i>)	Habs. Dir. A4, Habs. Reg. Sch 2, WaCA Sch 5 s9.4b/9.4c/s9.5a, NERC S41	Within 2km	
Serotine (<i>Eptesicus serotinus</i>)	Habs. Dir. A4, Habs. Reg. Sch 2, WaCA Sch 5 s9.4b/9.4c/s9.5a	Within 2km	23/06/2019
Duabenton's (<i>Myotis daubentoniid</i>)	Habs. Dir. A4, Habs. Reg. Sch 2, WaCA Sch 5 s9.4b/9.4c/s9.5a	Within 2km	16/06/2019
Whiskered/Brandt's (<i>Myotis mystacinus/brandtii</i>)	Habs. Dir. A4, Habs. Reg. Sch 2, WaCA Sch 5 s9.4b/9.4c/s9.5a	Within 2km	16/06/2019
Natterer's (<i>Myotis nattereri</i>)	Habs. Dir. A4, Habs. Reg. Sch 2, WaCA Sch 5 s9.4b/9.4c/s9.5a	Within 2km	16/06/2019

3.5 The desktop study revealed that there were three European Protected Species (EPS) licences, and one positive Great Crested Newt Class Survey Licence, within a 2km radius of the red line boundary.

Table 2: European Protected Species Licenses with 2km radius

Species	Distance/Orientation from site	License Type	License Duration/Date	Reference Number
Great-crested newt	195m south	Destruction of a resting place and breeding site	30/04/10 – 29/04/12	EPSM2009-1258
Brown long-eared, common pipistrelle and soprano pipistrelle	1.3km east	Damage of a breeding site	31/01/19 – 31/10/29	2019-38766-EPS-MIT
Common pipistrelle and soprano pipistrelle	1.2km north	Destruction of a resting place	26/05/17 – 30/09/17	2017-29484-EPS-MIT

**Figure 6. The granted European Protected Species Licences (squares) and positive GCN class licence returns, within 2km of site.**

UKHab Habitat Survey

- 3.6 The site is dominated by pasture grassland, surrounded by grown out hedgerows which have formed mixed scrub, with some mature trees across the north-south field divide and within scrub boundaries.
- 3.7 Only species of note have been listed within this section, the full species list can be found within **Appendix 1: Species List**. The habitat map is presented in **Appendix 2**.

Mixed scrub (h3d)

- 3.8 Mixed scrub dominated by hawthorn and blackthorn, with occasional goat willow, hazel, field maple, elder, and crab apple surrounded the pasture fields on almost all sides. These occasional extended into the understorey of the lines of mature trees, and appeared to have grown out of historic hedgerow borders through lack of management. These were densest along all borders of the south-western field, the western border of the northern fields and along the roadside on the eastern edge of site.
- 3.9 It was noted upon the second habitat survey visit, that significant portions of the mixed scrub, particularly in the western field, had been coppiced and the brash left in piles. Along the western boundary of the southern field, this had allowed large stands of hemlock water dropwort to proliferate. However, regrowth was apparent toward the end of the summer.

Modified grassland (g4)

- 3.10 The two northern fields on site were modified grassland. These had an extremely short sward (c. 2-3cm), due to grazing by horses. It appears likely that these fields were where the horses were most frequently pastured, given the proximity to the house/stables and more permanent horse amenities in place. The characteristic species here were dominated by perennial rye grass, with abundant creeping bent white clover, and silverweed, with occasional annual meadow grass, timothy, creeping buttercup, scentless mayweed, and marsh cudweed.

Other neutral grassland (g3c6)

- 3.11 All of the southern fields were classified as other neutral grassland. The sward was, again, shortened significantly by grazing, although not as significantly as in the northern fields. The grassland was slightly tussocky in places, with hard and soft rush apparent, indicating seasonal wetness in parts of the fields. The western most field had the longest sward and was evidently grazed the least out of the whole site. The characteristic species of these field included dominant Yorkshire fog, with abundant meadow foxtail, and common bent, frequent sweet vernal grass, creeping buttercup, creeping bent, red fescue, and occasional greater bird's-foot trefoil, hard rush, common fleabane, white clover, meadow buttercup, and marsh foxtail.

Buildings (u1b5)

- 3.12 There was a small building of corrugated metal north of the north/south field margin, which could be considered temporary, for horse shelter.

Ecologically valuable line of trees (w 34)

- 3.13 Mature lines of trees were present along the boundaries of the three fields on site. These were dominated by pedunculate oak, with occasional ash, field maples and willows.

Protected Species Assessment**Bats*****Roosting***

- 3.14 There were numerous trees on site which of suitable size and age to contain usable features for roosting bats. Of the trees at risk of loss due to the development of tree condition, two were identified as containing suitable potential roosting features for bats.
- 3.15 T35 (as listed on the AIA - Broad Oak Tree Consultant, 2024) was a mature ash located in the central treeline divide between the northern and southern fields. This tree contained a rot hole at the base, which opened into a cavity moving up the trunk, categorised as a PRF-M. There was also a smaller woodpecker hole on a limb higher up, this was considered likely to be a PRF-I, although further inspection would be needed to confirm this.

- 3.16 In G70, a seemingly dead (or partially dead) semi-mature oak was located on the southern boundary, nearby to where the new access is to be created. This contained a PRF-M feature in the form of a rotted out trunk which extending into a cavity running up from approximately chest level (c. 1.5m).

- 3.17 There were no buildings located on site.

Foraging and Commuting

- 3.18 The site was bordered and transversed by a combination of mature treelines, scrub edges and hedgerows. These were all connected to a wider network of similar structures which moved throughout the local landscape. The vast majority of site was unlit, aside from the southern edge immediately adjacent to the industrial yards and buildings which had floodlighting.

- 3.19 Foraging habitat was of a poorer quality but still available on site. The short sward grassland on site, the dominating habitat, offered only limited potential to support a large or diverse insect assemblages associated with good bat foraging locations. Nevertheless, the mature trees, hedgerows and scrub along the edges would likely support more invertebrate prey.

Great Crested Newts

- 3.20 OS mapping indicated that there were no ponds on site, but that seven were within the local area.
- 3.21 Terrestrial habitat on site was limited in suitability for GCN. The vast majority of site was short-sward grassland in a rotational horse grazed land usage. Grass here was generally less than 3cm high, close cropped by the horses. This habitat generally offers negligible opportunities for GCN to seek refuge or forage, with only limited suitability as an exposed but traversable commuting habitat.
- 3.22 Habitat at the edges of site were more valuable for GCN. The mixture of hedgerows, bramble and mixed scrub offered opportunities for foraging and commuting GCN to utilise. Refuge opportunities were still limited with no visible large deadwood or

abandoned animal burrows, however, it is assumed some limited refuge habitat would be available amongst the leaf litter within these woody vegetation areas.

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3.25 [REDACTED]

[REDACTED]

[REDACTED]

Reptiles

3.26 The open short-sward grassland which dominated site was significantly limited in suitability for reptiles, being exposed, with no suitable sheltered basking or refuge spots. The field margins were more suitable. Here the shorter grassland offered open basking opportunities, whilst the dense hedgerows and bramble growth of the borders provided nearby shelter.

3.27 There were no significant opportunities for refuge identified on site, with no significant deadwood or other similar structures identified. Limited refuge would be available amongst the hedgerows, but more significant refuge opportunities would likely be available within nearby sites such as the major scrub/woodland complex to the south.

Dormice

3.28 The mature scrub/hedgerows borders on site were the most suitable dormouse habitat present. The woody vegetation formed continuous canopies, allowing for arboreal travel and nest building. Dominant species were bramble and hawthorn, with some oak and

blackthorn. All these species are known to provide either nesting material or food sources for dormice.

- 3.29 The site bordered and was connected to wider hedgerow networks, ensuring that the site was not isolated and that potential dormice individuals could not only pass across it, but between it and other suitable habitat, locally.
- 3.30 The grassland on site was entirely unsuitable for dormice, lacking the necessary habitat structure and species composition to offer any viable opportunities for dormice.

Nesting Bird

- 3.31 The scrub, hedgerows and mature treeline/individual tree vegetation on site offered suitable nesting habitat for a range of shrub, hedgerow, cavity and canopy nesting birds.

Other Species

- 3.32 The onsite habitat and the connected habitat surrounding site offered suitable foraging and refuge opportunities for hedgehogs.
- 3.33 Due to lack of suitable habitat and connectivity, the site was not considered to have potential for additional protected species such as water voles, otters or white-clawed crayfish.

4.0 Discussion

- 4.1 The following paragraphs consider the effects of the development on designated sites, priority habitats and protected and priority species. Where the desk study and Phase 1 survey provide sufficient evidence for an assessment of effects on any of these groups to be taken through planning, these are detailed below, the need for additional surveys and when and how these should be completed are summarised, if required.

Effects on designated sites

- 4.2 There are no internationally designated sites within 15km of the proposed development site. Given this significant separating distance between site and any internationally protected site, the opportunity for significant impacts to internationally designated sites would appear negligible.

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- 4.3 The site falls within the Sussex North Water Resource Zone and as such, is subject to water neutrality requirements associated with Arun Valley SPA, SAC & Ramsar site. As such, in order to avoid contributing to the cumulative impact of water extraction from the Arun Valley, the development will need to demonstrate that it will not result in a net-increase in water extraction. For applications where increased demand for water resources is the only pathway for impacts, Natural England's substantive advice (Position Statement Interim Approach, September 2021) is that such applications - without mitigation - will result in a likely significant effect on the Arun Valley SAC/SPA/Ramsar site in combination with other developments in the Sussex North WSZ. It is for the utilities and services teams to identify if water neutrality can be met on this site. No other impacts on statutory designated sites are anticipated as a result of the development.
- 4.4 There is one national statutory designated site located within 2km of the site. This was Tottington Wood LNR, located approximately 1.3km south of site. Tottington Wood LNR is not functionally connected to site, being separated by from site by the A2037 and the settlement of Edburton. This, combined with the distance, means that the likelihood of adverse impacts to the protected site is considered to be negligible.
- 4.6 The site lies within Beeding Hill to Newtimber Hill SSSI and The Adur Estuary SSSI impact zone. At this distance, development including quarries and mineral extractions, and any discharge of water or liquid waste of more than 20 cubic meters to ground (seep away) or to surface water, should be considered a potential impact and would require consultation with Natural England, prior to consent being granted. There is potential that this development falls into that category, given the nature of the run-off treatment on site, and therefore consultation may be required.
- 4.7 There are five non-statutory sites within 2km of the site boundary, these are all Local Wildlife Sites (LWS's): Oreham Common LWS, located approximately 430m east of site, Hoe Wood LWS, located approximately 675m south of site, Broadmare Common LWS, located approximately 450m north of site, Henfield Common LWS, located approximately 970m north of site, and River Adur Water Meadows and Wyckham Wood LWS, located approximately 1.85km west of site. These sites appear to be poorly connected to the

development site and are generally separated by a relatively large distance. As such, it is considered that the likelihood of adverse impacts to the protected site is considered to be negligible.

Effects on Habitats (On-site and Priority)

- 4.8 There are no priority habitats located on site. The habitats present were considered to all be common at a local, regional and national scale. The most significant value was provided by the edge habitats (scrub and mature tree lines). Where possible, it is recommended that these habitat features are retained to maintain as much ecological value on site as possible. All mature trees, such as those located within the central treeline and dotted around the edges of site should have root protection area buffer zones, within which no works should take place, if possible.
- 4.9 It is recommended that all habitat losses are mitigated/compensated for via the completion of a Biodiversity Net Gain (BNG) assessment, using the Statutory Metric, as produced by DEFRA. Under the currently adopted Horsham District Planning Framework (2015) **Policy 25**, the site is required to show at least no net loss in biodiversity units, post development, with net gain where possible. It should be noted that a new Horsham District Local Plan 2023 – 2040 is currently under Regulation 19 review, prior to be submitted to the Secretary of State. This may be enacted prior to planning be submitted for this development. Under **Strategic Policy 17: Green Infrastructure and Biodiversity**, any ‘relevant development’ will be required to achieve a 12% net gain in biodiversity.
- 4.10 Under the National Planning Policy Framework (2023) it is required that all ancient woodland is protected with at least a 15m buffer, within which no works or other disturbance should occur. There is no ancient woodland located on site, however, the nearest area of habitat was located nearby to site, to the east of the A2037. This is approximately 1.3km away and therefore outside of the required 15m buffer zone.

Effects on Protected Species

Bats

- 4.11 There were two trees on site which were identified as having potential to support roosting bats, within PRF-M features. T35 was a mature ash, with a large rot hole towards the base

which ran up the trunk (a PRF-M), with a smaller woodpecker hole on a higher branch too (a PRF-I). Another dead/partially dead tree on the southern border within G70, nearby to where the access road is to be located, also had a PRF-M.

4.12 As both of these trees contained PRF-Ms, further survey works are required to identify potential usage of the feature by roosting bats. This can be undertaken in one of two ways. Firstly, the trees could be subject to three dusk emergence surveys. These must be spaced at least three weeks apart, with a minimum of two occurring during optimal bat survey season (May – August, inclusive). Each tree should be surveyed by a minimum of one surveyor, supported by an infra-red camera. These surveys should begin at least 15 minutes before sunset and run for an hour and a half after sunset. The information gathered during this survey will inform on the need for further mitigation licencing (European Protected Species Mitigation or Bat Mitigation Class Licence), as dictated and granted by Natural England.

4.13 Alternatively, further PRF inspection surveys could be utilised to confirm presence or likely absence of bats, at the time of the survey. Provisions for these are laid out in Chapter 6 of *Bat Surveys for Professional Ecologists: Good Survey Guidelines* (Collins, 2024). These should be undertaken by a suitably qualified ecologist, equipped with an endoscope for close up inspection of the identified features. The ecologist will attempt to identify the following during the inspection:

- Presence of live or dead bats;
- Presence of droppings (to be collected if found);
- Any noticeable odour or visible urine staining;
- Internal moisture conditions;
- If bats are present, the species assemblage, numbers, the condition of the bats (awake or torpid), location of the bats and distance from the PRF entrance.

4.14 If the ecologist identifies no evidence of bats within the structure, provided the full extent of each feature can be observed, then it should be considered that bats are likely absent from the structure at the time of the survey and no further surveys are required. Any bats, evidence of bats or insufficient inspection coverage will trigger the need for further bat surveys (unless all bats can conclusively be counted and fully identified).

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- 4.15 Although the habitat on site was limited in value for foraging bats, it presented good linear commuting features and was therefore well connected to the wider landscape. the site should be considered of 'moderate' value for foraging and commuting bats. Plans indicate development in close proximity to these edge habitat features, with limited, small scale removal of some sections. As such, it is recommended activity surveys are undertaken on site. These will aid in establishing usage of site by local bat populations, and therefore in the targeting of avoidance, mitigation or compensation measures.
- 4.16 These transect surveys should be undertaken once per season, from April to October. This is defined as one survey for each route per spring (April/May), summer (June/July/August) and autumn (September/October). A minimum of two static detectors should be installed per route. These should be in place each month between April and October, for a period of five consecutive days each time.
- 4.17 Any proposed lighting scheme as part of the development will have to take into account bats in the surrounding area as well as on site. Particular focus should be on the vegetated borders of site.
- 4.18 All bat species are nocturnal, resting in dark conditions in the day and emerging at night to feed. Bats are known to be affected by light levels which can affect both their roosting behaviour as well as their foraging behaviour. This needs to be taken into account, with a sympathetic lighting scheme for the development. Recommendations include:
- Lighting should only be installed if there is a significant need;
 - Lighting should be avoided along all linear features such as scrub edges, treelines and hedgerows, which bats use to commute across the landscape to forage;
 - Lights should have focussed luminance on their target area, preventing light spill and pollution into other areas of the site and local area.
 - Dark buffer zones can be used as a good way to separate habitats or features from lighting by forming a dark perimeter around them. Buffer zones rely on ensuring light levels within a certain distance of a feature do not exceed certain defined limits; and
 - Light levels should be kept low. All luminaires should lack UV elements when manufactured and metal halide, fluorescent sources should not be used. LED

luminaires should be used where possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capability.

- 4.19 The use of a sensitive lighting scheme will help ensure that the foraging and commuting potential within and adjacent to site, albeit limited, is not adversely affected by the proposals. These benefits will also be mutually beneficial to birds and small mammals which may use the same features to commute, forage and nest/seek refuge.

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4.21

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4.22

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[REDACTED]
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Reptiles

- 4.23 The site contained some suitable habitats, centring on the scrub/hedgerow/treeline site edges. Although the suitability on site was primarily limited to foraging and basking opportunities, suitable refuge habitat was present on nearby, well connected parcels of land. Proposed plans indicate habitat loss, or significant alteration, to a large portion of the suitable site edges.
- 4.24 Given extent of the on-site development, it is recommended that full reptile surveys are undertaken, which will identify the potential presence of a reptile assemblage on site. Artificial refugia should be installed on site and left to establish for a period of two weeks,

before weekly checks are carried out for a period of seven weeks, weather depending. Reptile survey work can be undertaken in the period of March to October, inclusive.

- 4.25 The results of the survey work will inform on the need for further mitigation in order to sufficiently protect the potential reptile populations on site.

Nesting Birds

- 4.26 There was a variety of nesting habitats located across site, including scrub, hedgerows, and mature individual trees and treelines. Current plans indicate potential scrub loss, as well as potential loss of individual trees and partial loss of hedgerows and treelines.
- 4.27 It is therefore recommended that any vegetation suitable for nesting birds, is removed outside of nesting bird season (March – August, inclusive). Should this not be possible, then all vegetation removed must only be done so after a nesting bird check by a suitably qualified ecologist. Any nests identified which are suspected of being, or known to be, active, must have a suitable exclusion zone erected around it. No works may occur within this space until such time as an ecologist can confirm the nest as being inactive.

Great-crested Newts

- 4.28 There was no aquatic breeding habitat on site and the only areas of suitable terrestrial habitat were limited to the edges, where limited works are occurring. The majority of the works area is short-sward grass and considered unsuitable for newts. No significant refugia or hibernation habitat is to be disturbed or destroyed by works. Nevertheless, there are sufficient numbers of ponds and ample suitable terrestrial habitat, within 250m, to support a population of GCN. This offers the possibility of individual GCN crossing through portions of site on an infrequent basis, between their more important habitats.
- 4.29 As such, it is recommended that local ponds are subject to environmental DNA (eDNA) sampling to identify the presence and proximity of GCN ponds in the local area. Post completion, these results should inform on the most appropriate system of mitigation, likely a robust set of Reasonable Avoidance Measures (RAMs).

Hazel Dormice

- 4.30 Dormice are known to be relatively widespread in Sussex and although not all habitat on site was not suitable for them, there were noted suitable hedgerows/scrub connected to further suitable habitat off-site.
- 4.31 Portions of certain edge scrub and tree lines are to be removed or cut back to facilitate either access or the development footprint. It is therefore recommended that dormouse surveys are undertaken on site to inform on site usage by dormice. This will aid the design of avoidance, mitigation, compensation and enhancement measures, in order to preserve the favourable conservation status of dormice on site and in the local area.
- 4.32 Dormouse surveys will require a suitable number of nesting tubes to be set up across habitat of potential value to dormice on site. Dormouse surveys can be conducted from the beginning of April until the end of November, with each month being assigned a score relative to their likelihood for dormice to be observed in that period.
- 4.33 A minimum total of 20 points must be accrued in order to apply for a European Protected Species Mitigation Licence, if evidence of dormice is identified. The relative points for each month are displayed in Table 3. The first month in which tubes are set up cannot be counted towards the score, due to the tubes requiring time to establish and be used by dormice. Tubes can be installed at any time of year but only survey. The most valuable months are May, August and September and effort should be made to include all three months in the surveys.

Table 3. Months and associated scoring for survey effort, in relation to dormouse activity at that time of year.

Month	Points
April	1
May	4
June	2
July	2
August	5
September	7
October	2
November	2

Other species

- 4.34 The site has potential to support commuting / foraging hedgehogs; whilst receiving no specific legal protection, they are protected from certain forms of harm under the wild mammals (Protection) Act 1996. As such, it is recommended that when any areas of dense vegetation are cleared, this is carried out in two stages. The first cut to 300mm, then then the second to ground level after the area has been searched for hedgehogs. If any are found, they will be safely move to a suitable refugia or habitat patch outside the clearance area.
- 4.35 Due to lack of suitable habitat and connectivity, the site was not considered to have potential for additional protected species such as water voles, otters, and white-clawed crayfish

Ecological Enhancements

- 4.36 It is recommended that a detailed mitigation and enhancement strategy is drawn up for the site based on the current baseline and through the review of the proposals. This will include but not be limited to the following:
- Creation of new high distinctiveness habitats such as hedgerows, ponds, and, meadows, to be managed in the long term for biodiversity;
 - Installation of specialist bird and bat boxes on retained mature trees within the site, and,
 - Creation of log piles and reptile hibernacula to provide safe refuge and hibernation sites for reptiles, amphibians, and, hedgehog.

5.0 Ecological Impact Assessment

- 5.1 This section of the report forms an EcIA (Ecological Impact Assessment) and is designed to quantify and evaluate the potential impacts of the development on habitats and species present on site, or within the local area.
- 5.2 The approach to this assessment accords with guidance presented within the CIEEM Guidelines for Ecological Impact Assessment in the UK and Ireland (CIEEM 2018). In essence, an EcIA assesses the activities associated with a proposed scheme that are likely to generate changes within identified zone of influence, on identified ecological features

and receptors. The proposals are subsequently reviewed, and mitigation and compensation measures are outlined which help to reduce negative impacts.

5.3 Table 4 below summarises the impacts and required mitigation for each receptor as previously detailed in the discussion.

Table 4: Assessment of effects from the proposal after mitigation and compensation

Feature	Scale of Importance	Mitigation/Compensation Required	Residual Effect
Arun Valley SAC SPA Ramsar	International	Water neutrality commitments to be met	Not determined
Tottington Wood LNR	National	Lacked functional connection to site and relatively large separating distances. No significant impacts predicted.	Not significant
Local wildlife sites (various)	Local/Regional	No significant impacts are predicted.	Not significant
On-site habitats	Local	BNG requirements to inform post development landscape proposals.	Not determined
Bats (Roosting)	Unknown	Two trees, each containing a PRF-I and PRF-M. Emergence surveys or PRF inspections required.	Not determined
Bats (Foraging and Commuting)	Unknown	Activity surveys to determine future mitigation.	Not determined
Reptiles	Site	Surveys across site to determine further mitigation.	Not determined
GCN	Site	eDNA sampling to inform on robust system of RAMs	Not determined
Dormice	Local	Surveys across site) to determine further mitigation.	Not determined
██████	██	████████████████████ ████████████████████ ████████████████████	██ ██████

Nesting birds	Site	Seasonal vegetation clearance, or nesting bird checks by an ecologist.	Not significant
Hedgehogs and small mammals	Site	On site considerations during works.	Not significant

6.0 Conclusions

- 6.1 The Ecology Partnership Ltd was commissioned by DMH Stallard Ltd to undertake a Preliminary Ecological Appraisal (PEA) on the land to the north of The Old Brickworks, Shoreham Road, Henfield, BN5 9SE.
- 6.2 The site comprised a series of small, horse grazed pasture fields of modified and neutral grassland, bordered predominantly by mixed scrub.
- 6.3 There are no internationally designated sites within 15km of the proposed development site.
- 6.4 The site falls within the Sussex North Water Resource Zone and as such, is subject to water neutrality requirements associated with Arun Valley SPA, SAC & Ramsar site. As such, in order to avoid contributing to the cumulative impact of water extraction from the Arun Valley, the development will need to demonstrate that it will not result in a net-increase in water extraction.
- 6.5 There is one national statutory designated site located within 2km of the site. This was Tottington Wood LNR, which is not functionally connected to site, being separated by from site by the A2037 and the settlement of Edburton. This, combined with the distance, means that the likelihood of adverse impacts to the protected site is considered to be negligible.
- 6.6 The site lies within Beeding Hill to Newtimber Hill SSSI and The Adur Estuary SSSI impact zone. At this distance, development including quarries and mineral extractions, and any

discharge of water or liquid waste of more than 20 cubic meters to ground (seep away) or to surface water, should be considered a potential impact and would require consultation with Natural England, prior to consent being granted.

- 6.7 There are five non-statutory sites within 2km of the site boundary, these are all Local Wildlife Sites (LWS's). These sites appear to be poorly connected to the development site and are generally separated by a relatively large distance. As such, it is considered that the likelihood of adverse impacts to the protected site is considered to be negligible.
- 6.8 The site will require a biodiversity net gain assessment with 12% net increase in units on site, in order to mitigate the loss of those habitats removed during development. The site should be re-visited in spring/summer 2024, to best identify the habitats and species present within the grassland habitats on site.
- 6.9 Two trees were identified with PRF-M features, offering the potential for bats to utilise them. These will either need to be subject to three emergence surveys, spaced three weeks apart, or a comprehensive PRF inspection survey of all PRFs found within the structure. There were no buildings suitable for bats on site.
- 6.10 The site offered suitable commuting habitat between off-site foraging features in the landscape, whilst also being of limited value as foraging resource itself. As such, it is recommended activity surveys are undertaken on site. These will aid in establishing usage of site by local bat populations, and therefore in the targeting of avoidance, mitigation or compensation measures.
- 6.11 Any proposed lighting scheme as part of the development will have to take into account bats in the surrounding area as well as on site. Particular focus should be on the vegetated borders of site.

6.12

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- 6.13 [REDACTED]
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- 6.14 [REDACTED]
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- 6.15 Given extent of the on-site development, it is recommended that full reptile surveys are undertaken, which will identify the potential presence of a reptile assemblage on site. The results of the survey work will inform on the need for further mitigation in order to sufficiently protect the potential reptile populations on site.
- 6.16 It is recommended that any vegetation suitable for nesting birds, is removed outside of nesting bird season (March – August, inclusive). Should this not be possible, then all vegetation removed must only be done so after a nesting bird check by a suitably qualified ecologist.
- 6.17 It is recommended that local ponds are subject to environmental DNA (eDNA) sampling to identify the presence and proximity of GCN ponds in the local area. Post completion, these results should inform on the most appropriate system of mitigation, likely a robust set of Reasonable Avoidance Measures (RAMs).
- 6.18 Portions of certain hedgerows are to be removed or cut back to facilitate either access or the development footprint. It is therefore recommended that dormouse surveys are undertaken on site to inform on site usage by dormice. This will aid the design of avoidance, mitigation, compensation and enhancement measures, in order to preserve the favourable conservation status of dormice on site and in the local area.
- 6.19 The site has potential to support commuting / foraging hedgehogs. As such, it is recommended that when any areas of dense vegetation are cleared, this is carried out in two stages. The first cut to 300mm, then then the second to ground level after the area has

been searched for hedgehogs. If any are found, they will be safely move to a suitable refugia or habitat patch outside the clearance area.

- 6.20 Recommendations for enhancements have been made within this report, aimed at improving the ecological value of the site and providing a net gain in biodiversity post-development.

7.0 References

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Magic Interactive Map: www.magic.gov.uk

Google Earth: www.earth.google.co.uk

Appendix 1: Species List

Common name	Latin name	DAFOR score
Modified grassland (g4)		
Perennial rye-grass	<i>Lolium perenne</i>	D
White clover	<i>Trifolium repens</i>	A
Creeping Bent	<i>Agrostis stolonifera</i>	A
Silverweed	<i>Potentilla anserina</i>	F
Annual meadow-grass	<i>Poa annua</i>	O
Timothy Grass	<i>Phleum pratense</i>	O
Creeping Buttercup	<i>Ranunculus repens</i>	O
Marsh Foxtail	<i>Alopecurus geniculatus</i>	O
Marsh Cudweed	<i>Gnaphalium uliginosum</i>	O
Scentless mayweed	<i>Tripleurospermum inodorum</i>	O
Field bindweed	<i>Convolvulus arvensis</i>	R
Meadow barley	<i>Hordeum secalinum</i>	R
Spiny sowthistle	<i>Sonchus asper</i>	R
Red clover	<i>Trifolium pratense</i>	R
Other neutral grassland (g3c) – tall forbs (16) (Higher – along crest)		
Yorkshire fog	<i>Holcus lanatus</i>	D
Common Bent	<i>Agrostis capillaris</i>	A
Meadow Foxtail	<i>Alopecurus pratensis</i>	A
Hemlock water dropwort	<i>Oenanthe crocata</i>	F
Sweet vernal-grass	<i>Anthoxanthum odoratum</i>	F
Creeping Buttercup	<i>Ranunculus repens</i>	F

Red Fescue	<i>Festuca rubra</i>	F
Creeping Bent	<i>Agrostis stolonifera</i>	F
Marsh Foxtail	<i>Alopecurus geniculatus</i>	F
Hard rush	<i>Juncus inflexus</i>	O
Greater bird's-foot-trefoil	<i>Lotus pendunculatus</i>	O
Common fleabane	<i>Pulicaria dysenterica</i>	O
White clover	<i>Trifolium repens</i>	O
Meadow Buttercup	<i>Ranunculus acris</i>	O
Rough meadow-grass	<i>Poa trivialis</i>	R
Common knapweed	<i>Centaurea nigra</i>	R
Smooth Tare	<i>Vicia tetrasperma</i>	R
Timothy Grass	<i>Phleum pratense</i>	R
Greater willowherb	<i>Epilobium hirsutum</i>	R
Clustered Dock	<i>Rumex conglomeratus</i>	R
Selfheal	<i>Prunella vulgaris</i>	R
Ground Ivy	<i>Glechoma hederacea</i>	R
Crested Dog's-tail	<i>Cynosurus cristatus</i>	R
Marsh Woundwort	<i>Stachys palustris</i>	R
Sedge	<i>Carex spp.</i>	R
False Fox Sedge	<i>Carex otrubae</i>	R
Meadow Vetchling	<i>Lathyrus pratensis</i>	R
Greater Plantain	<i>Plantago major</i>	R
Tufted Vetch	<i>Vicia cracca</i>	R

Silverweed	<i>Potentilla anserina</i>	R
Jointed Rush	<i>Juncus articulatus</i>	R
Perennial rye-grass	<i>Lolium perenne</i>	R
Hairy Sedge	<i>Carex hirta</i>	R
Ragwort	<i>Senecio jacobaea</i>	R
Bristly Ox Tongue	<i>Helminthotheca echioides</i>	R
Primrose	<i>Primula vulgaris</i>	R
Mixed scrub (h3h)		
Hawthorn	<i>Crataegus monogyna</i>	A
Bramble	<i>Rubus fruticosus</i>	A
Blackthorn	<i>Prunus spinosa</i>	A
Goat willow	<i>Salix caprea</i>	O
Field maple	<i>Acer campestre</i>	O
Crab apple	<i>Malus sylvestris</i>	O
Dog rose	<i>Rosa canina</i>	O
False wood brome	<i>Brachypodium sylvaticum</i>	O
Buddleia	<i>Buddleia sp.</i>	O
Hazel	<i>Corylus avellana</i>	R
Ecologically valuable line of trees (w 34)		
Pedunculate oak	<i>Quercus robur</i>	D
Ash	<i>Fraxinus excelsior</i>	O
Field maple	<i>Acer campestre</i>	O
Eucalyptus	<i>Eucalyptus</i>	R

Appendix 2: Habitat Map



Appendix 3: Site Photographs

Photograph 1: Horse grazed fields in the southern part of site, looking toward the existing gap in the treeline on the southern site boundary.



Photograph 2: Less frequently grazed field in the south-western part of site, looking toward the scrub and mature tree line along the western site boundary.



Photograph 3: Horse grazed fields in the northern part of site, comprising modified grassland.



Photograph 4: Mixed scrub and mature treeline between the northern and southern fields.



Photograph 5: Tree with features of value to roosting bats on the boundary between the northern and southern fields. Labelled T35 within the tree schedule.



Photograph 6: Potential roosting feature near the base of T35.



Photograph 7: Additional potential roosting feature further up the main trunk of T35.



Photograph 8: Potential roosting features on a tree within G70 on the southern boundary..



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