PRELIMINARY ECOLOGICAL APPRAISAL

Land at Tile Kiln Lane
Dartford
DA5 2BD

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on behalf of

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EXECUTIVE SUMMARY

PJC Consultancy Ltd was commissioned by Phikoon Willy to provide a Preliminary Ecological Appraisal for a parcel of land at Tile Kiln Lane, Dartford, DA5 2BD. 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 (2021) – more specifically Chapter 15 'Conserving and Enhancing the Natural Environment' as well as the Dartford Core Strategy (Dartford Borough Council, 2011).

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

Protected Species/Habitats	**Suitable Habitat Present**	**Recommended Further Surveys**	**Ecological Mitigation**
Broadly Classified Deciduous Woodland	A parcel of broadly classified deciduous woodland habitat of principal importance (HPI) under the NERC Act 2006 was recorded bordering the eastern, western and southern Site boundaries.	None required.	The proposals should be updated to ensure works are undertaken outside of the root protection areas of all trees forming the woodland parcel. A strict pollution prevention pro tocol must be implemented during the construction and operational phases of the proposed development, to ensure that chemical run-off, dust and particulate pollution of the woodland is avoided. A sensitive lighting mitigation strategy should be adhered to throughout the demolition, construction and operational phases of the proposed development to avoid the artificial illumination of all woodland parcels.
Bats (Roosting)	Buildings B2-B4, B8 and B9 within the Site were identified as having low potential to support roosting bats.	A single bat emergence survey 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. A sensitive lighting strategy, and pollution prevention protocol should be adopted during both the construction and operational
	Tree T1 and T2 were identified as	None required providing all three	

	having moderate suitability to support roosting bats. Tree T3 was identified as having low suitability to support roosting bats.	trees are to be retained.	phases of the proposed development.
Bats (Foraging and Commuting)	The Site was identified as having moderate habitat suitability to support commuting and foraging bats.	None required.	A sensitive lighting strategy, and pollution prevention protocol should be adopted during both the construction and operational phases of the proposed development.
Badgers	The Site was considered to provide some limited foraging and commuting opportunities for badgers.	A pre-works survey should be undertaken immediately prior to any construction works commencing to ensure no new setts have become established.	Further requirements for mitigation, compensation and/or licences may be required for badgers depending on the results of the recommended further surveys.
Dormice	The Site was identified as providing some suitable foraging, commuting, nest building and hibernating opportunities for dormice.	None required providing the avoidance and mitigation measures are adhered to.	The proposals should be updated to ensure works are undertaken outside of the root protection areas of all trees forming the woodland parcel. A strict pollution prevention pro tocol must be implemented during the construction and operational phases of the proposed development, to ensure that chemical run-off, dust and particulate pollution of the suitable dormouse habitat is avoided. A sensitive lighting mitigation strategy should be adhered to throughout the demolition, construction and operational phases of the proposed development to avoid the artificial illumination of all suitable dormouse habitat.
GCN	The Site was identified as having potential to support GCN during their	A GCN Habitat Suitability Index (HSI) assessment of all potentially suitable	Further requirements for mitigation, compensation and/or licences may be required for GCN

	terrestrial lifecycle phase. There was also suitable habitat connectivity to a network of waterbodies within a 250m radius of the Site.	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. The applicant could also apply for a District Level Licence (DLL) 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.	Reptile presence/likely absence surveys should be undertaken over the active reptile season between April and September inclusive during periods with temperatures between 9-18°C.	Further requirements for mitigation and compensation may be required for reptiles depending on the results of the recommended further surveys.
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.

1 INTRODUCTION

1.1 Instruction

1.1.1 PJC Consultancy Ltd was commissioned by Phikoon Willy to provide a preliminary ecological appraisal (PEA) which includes an extended phase 1 habitat survey and a preliminary bat roost assessment (PBRA) of a parcel of land at Tile Kiln Lane, Dartford, DA5 2BD (hereafter referred to as the 'Site').

1.2 Survey Objectives

1.2.1 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.

1.3 Documents and Information Provided

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

- Topographical Survey, drawing number: CLS23077002, rev:0 (Chinery Land Surveys, 2023);
- Existing Location Plan, drawing number: P03 (2-4C, 2023); and
- Proposed Housing Development, Location Plan, drawing number: P02 (2-4C, 2023).

1.4 Scope of 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 proposals include the demolition of a number of the existing buildings on Site for the construction of residential properties with associated access and gardens.

1.6 Site Description

1.6.1 The Site, approximately 1.2ha in size, is located 1.4km south-east of Bexley town centre, comprising multiple buildings, scattered trees and standing water as well as parcels of scrub, grassland and tall ruderal, centred on OS central grid reference TQ50537234. The Site is accessed via a private road leading south from Tile Kiln Lane. The Site is boarded by residential properties on the northern aspect and parcels of woodland on the eastern, western and southern aspects. 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) 2021 (Ministry of Housing, Communities and Local Government, 2021);
- The Protection of Badgers Act 1992;
- The UK Post-2010 Biodiversity Framework (2011-2020); and
- Dartford Core Strategy (Dartford Borough Council, 2011).

2 METHODOLOGY

2.1 Desk Study

2.1.1 A desk study was undertaken in August 2023 with the objective of collating and reviewing existing ecological information, and obtaining data and information held by relevant third parties.

2.1.2 Datasets from Natural England (MAGIC, 2023) were reviewed to identify the presence of UK statutory designated sites and notable habitats within the zone of influence, including woodlands listed on the ancient woodland inventory, habitats of principal importance (HPI) listed on the priority habitat inventory and statutory designated 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'.

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 (CIEEM, 2018).

2.2 Extended Phase 1 Habitat Survey

2.2.1 An extended phase 1 habitat survey was undertaken on the 18th July 2023 by Nicolle Stevens BSc(Hons) ACIEEM (Natural England class one bat and great crested newt *Triturus cristatus* (GCN) 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 external and internal inspection of the buildings and ground inspection of trees was to assess potential roosting features (PRFs) such as those presented in Tables 1 and 2. The PBRA was undertaken in accordance with best practice survey standards (BCT, 2016 and BTHK, 2018).

Table 1: Features of trees commonly used by bats.

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

Dense epicormic growth (bats may roost within it).	Distinctive smell of bats.
Bird and bat boxes.	Smoothing of surfaces around cavity.

Table 2: Features of buildings commonly used by bats.

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

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 A single waterbody WB1 was recorded within the Site. Waterbody WB1 within the Site was subject to a habitat suitability index (HSI) assessment and terrestrial habitat assessment during the extended phase 1 habitat survey on the 18th July 2023 by Nicolle Stevens BSc(Hons) ACIEEM (Natural England class one bat GCN licence holder).

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 = (SI1*SI2*SI3*SI4*SI5*SI6*SI7*SI8*SI9*SI10)1/10 to provide the geometric mean, which is a numerical index between 0 and 1. A lower score indicates a less suitable habitat whereas a higher score represents optimal conditions favourable for GCN as detailed in Table 5 below. There is a positive correlation between the scores and the resulting incidence of GCN observed in ponds. However, whilst the HSI can be used to help inform the likelihood of presence or absence it is not sufficiently precise

to allow conclusion that a higher score confirms presence and likewise a lower score absence. HSI is therefore used as a guide to help determine the need for further GCN surveys.

Table 5: Categorisation of HSI Scores.

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

2.5 Limitations of Survey

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 A full biological record centre desktop study was not undertaken as part of this assessment. This was not considered necessary given the limited scale of the proposed development, the nature of the on-site and surrounding habitats and limited potential for impacts to arise within or outside of the Site.

2.5.4 Full access to building B3 and B4 roof void was not feasible during the survey due to access restrictions/health and safety considerations and thus a thorough assessment of building B3 and B4 roof void could not be undertaken. The building was not deemed structurally sound and as such safe access was not permitted. As a result, a precautionary approach to surveying for bats and subsequent mitigation has been adopted to account for the restricted assessment.

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 (2.5.1) and should not be relied upon or used for any other project without an additional check being carried out by the author as to its suitability in relation to any updated proposals. PJC Consultancy accepts no responsibility or liability for the consequence of this document being used for a purpose other than the purposes for which it

was commissioned. PJC Consultancy accepts no responsibility or liability for this document to any party other than the person by whom it was commissioned.

3 RESULTS

3.1 Desk Study

Statutory Designated Sites

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

Protected and Notable Habitats

3.1.2 Three 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 approximately 30m south of the Site.

3.1.3 Overall, 23 parcels of HPI listed on the priority habitat inventory were identified within the zone of influence as part of the desk study. These habitats included:

- Broadly classified deciduous woodland (17 parcels);
- Lowland heathland (two parcels); and
- Woodpasture and parkland (one parcel).

3.1.4 The closest parcel of HPI was an area of broadly classified deciduous woodland within the eastern aspect of the Site and bordering the eastern, western and southern Site boundaries.

Protected and Notable Species

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

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 IV.

Semi-natural Broadleaved Woodland (A1.1.1)

3.2.2 A parcel of semi-natural broadleaved woodland was recorded within the eastern, western and southern aspects of the Site. The canopy cover included a number of mature and semi-mature trees comprising sweet chestnut *Castanea sativa*, silver birch *Betula pendula*, English oak *Quercus robur*, cherry laurel *Prunus laurocerasus,* cherry *Prunus avium*, sycamore *Acer pseudoplatanus* and ash *Fraxinus excelsior*. The understorey of the woodland was mostly sparse, with semi-mature hazel *Corylus avellana*, cherry laurel and hawthorn *Crataegus monogyna* saplings present, whilst the filed layer comprised common nettles *Urtica dioica* and ferns *Tracheophyta* spp..

Broadleaved Scattered Trees (A3.1)

3.2.3 A number of mature and semi-mature trees were scattered throughout the Site. Tree species recorded included silver birch *Betula pendula*, English oak *Quercus robur* and cherry laurel *Prunus laurocerasus.*

Dense Scrub (A2.1)

3.2.4 Parcels of dense scrub were recorded along the north-eastern Site boundary. Species were dominated by bramble *Rubus fruticosus* agg., with ferns scotch broom *Cytisus scoparius* and greater mullein *Verbascum thapsus*.

Semi-improved Neutral Grassland (B2.2)

3.2.5 A parcel of semi-improved neutral grassland supporting a sward length over 30cm in height in places, was recorded at the southern aspect of the Site. The sward was tussocky and supported species of creeping bent *Agrostis stolonifera*, creeping cinquefoil *Potentilla reptans*, red clover *Trifoilum pratense*,

meadow grass *Poa* sp., hares foot clover *Trifolium arvense*, spear thistle *Cirsium vulgare*, yarrow *Achillea millefolium*, ribwort plantain *Plantago lanceolata*, Yorkshire fog *Holcus lanatus*, vetch *Vicia* spp., perennial ryegrass *Lolium perenne,* ragwort *Jacobaea vulgaris*, selfheal *Prunella vulgarisis,* hawkbit *Leontodon hispidus*, mugwort *Artemisia vulgaris,* creeping buttercup *Ranunculus repens,* dock *Rumex* sp.*,* common daisy *Bellis perennis*, tall fescue *Schedonorus arundinaceus,* field bindweed *Convolvules arvensis* and cut leaf geranium *Geranium dissectum,* and mouse ear chickweed *Cerastium fontanum.* Towards the north-eastern aspect of the parcel, species such as medic *Medicago* sp.*,* ground elder *Aegopodium podagaria,* common nettles, common centuary *Centaurium erythraea,* hogweed *Heracleum sphondylium*, birds foot trefoil *Lotus corniculatus,* wall barely *Hordeum murinum* and field marestail *Equisetum arvense* were also recorded.

Tall Ruderal (C3.1)

3.2.6 Parcels of tall ruderal vegetation comprising common nettles over 30cm in height, were recorded throughout the Site.

Amenity Grassland (J1.2)

3.2.7 Small parcels of amenity grassland comprising perennial ryegrass, common daisy and Yorkshire fog maintained at a short sward length (~5cm in height) were recorded within the most frequently used areas of the Site.

Standing water (G1)

3.2.8 A pond (waterbody WB1) was recorded at the southern aspect of the Site. Species recorded in waterbody WB1 included bull rushes *Scirpoides* holoschoenus, and water lilies *Nymphaeaceae* sp.*,* whilst the bankside vegetation comprised grassed of a longer sward (see paragraph 4.2.5 for species list, yellow flag iris *Iris pseudocorus* and rushes *Juncaceae* sp..

Buildings (J3.6)

3.2.9 A number of buildings including kennels, commercial and residential buildings were recorded within the Site. A full description of the buildings can be found in Table 6 below.

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
External Description
A triple storey building (including with basement) comprised of brick-and-mortar in good condition with a pitched roof of concrete tiles. The building supported three single storey pitches were recorded on the eastern elevation for two bays and a porch. Sky lights were recorded on the roof indicating that the majority of the loft space had been converted into living space. The building supported a timber soffit box in good condition. Overall, the building was in good condition and well-sealed.
Internal Description
Internally the loft space had been mostly converted. The eaves space was approximately 1.5m in height, 2.5m wide and 5m in length. The eaves space was lined with thermos insulated panels and plywood on the walls and new fiberglass insulation lining was present. A loft space recorded centrally within the building was approximately 2m long and 1.5m wide with a floor to apex height of 1m. The loft space was fully lined and

sealed with plaster board. Another loft space was recorded towards the western aspect of the building. The loft was approximately 3m wide, 2m in length and approximately 1m floor to apex and supported by good condition timber trusses. The void was lined with plastic which contained the fiberglass insulation. The basement space was converted to living space and boiler room.

Evidence of Bats

None observed at the time of the assessment.

Potential Roost Features

None observed at the time of the assessment.

Suitability to Support Roosting Bats

Negligible.

B2

External Description

A single storey building which has been partially converted, the building was clad with uPVC weatherboarding in good condition. Two large doors on the western elevation of the building were boarded up with plywood boarding that did not meet the roof and were cladding was missing on the southern elevation of the building. The building supported a pitched roof of clay roof tiles in reasonable condition, many of which were lifted in places. A uPVC soffit box was recorded in places but missing in others.

Internal Description

The loft space was approximately 8m wide, 25m in length with a floor to apex height of approximately 2m, converted into usable space. Supported by timber trusses and rafters in good condition, the roof was lined with breathable roofing membrane in good condition. skylights were recorded across the roof allowing for some amounts of light ingress into the loft. A small, enclosed roof void supported by good condition timber trusses was recorded at the eastern aspect of the building, approximately 2m^2 in size, with a floor to apex height of 1.5m.

Evidence of Bats

None observed at the time of the assessment.

Potential Roost Features

Lifted roof tiles could provide potential roosting opportunities for crevice dwelling bat species. The lifted tiles and gaps where the plywood boarding does not meet the roof could provide potential internal access for free hanging species to roost off of the timber trusses.

Suitability to Support Roosting Bats

Low.

B3

External Description

A single storey building comprised of a timber frame clad with painted shiplap weatherboarding which was lifted in places revealing plywood boarding underneath. The building supported a pitched roof of slate tiles with a ridge comprised of clay tiles in reasonable condition; some mortar was missing on from the ridge tiles on the gable ends. A timber soffit box was present on the northern and southern elevations. A small single storey extension comprised of the same materials just slightly smaller, was recorded on the eastern elevation.

Internal Description

It is understood the building supports a sealed and separate roof space/loft void.

Evidence of Bats

None observed at the time of the assessment.

Potential Roost Features

The damaged weatherboarding and gaps created from the missing mortar could provide potential roosting spaces for crevice dwelling bat species. The same features could also provide internal access into a loft space which could provide a roosting space for free hanging bat species.

Suitability to Support Roosting Bats

Low.

B4

External Description

A single storey building comprised of breezeblock-and-mortar which had been painted and rendered. The building supported a pitched roof of concrete tiles in reasonable condition; some of the mortar was missing on the gable ends. The building supported a single storey flat, felt roof extension on the western elevation which appeared well-sealed. The southern elevation of the building comprised a monopitched uPVC roof covering an external dog kennel.

Internal Description

A separate roof void was present although this was inaccessible during the survey.

Evidence of Bats

None observed at the time of the assessment.

Potential Roost Features

The missing mortar from the roof gable ends could provide potential roosting spaces for crevice dwelling bat species. The same features could also provide internal access into a loft space which could provide a roosting space for free hanging bat species.

Suitability to Support Roosting Bats

Low.

B5

External Description

A single storey building comprised of a timber frame clad with painted timber shiplap weatherboarding which appeared well-sealed. The building supported a flat, felt lined roof in good condition. The building supported a painted timber soffit board that was flush to the building.

Internal Description

Internal access was not provided during the assessment.

Evidence of Bats

None observed at the time of the assessment.

Potential Roost Features

None observed at the time of the assessment.

Suitability to Support Roosting Bats

Negligible.

B6

External Description

A single storey building comprised of a timber frame clad with painted shiplap weathering in good condition. The building supported a pitched felt roof, lifted in good condition. The felt was lifted in places but this was considered superficial. The eaves of the building were sealed.

Internal Description

No separate loft space/roof void was present, and the roof had been plastered and painted internally.

Evidence of Bats

None observed at the time of the assessment.

Potential Roost Features

None observed at the time of the assessment.

Suitability to Support Roosting Bats

Negligible.

B7

External Description

A single storey dog kennel comprised of breezeblock-and-mortar which had been rendered in places. the building supported a monopitched roof of corrugated metal sheeting. The western elevation of the building supported a uPVC monopitched roof covering an external dog kennel. The building supported a timber soffit board that was painted and damaged in places which was flush to the walls. Although this was not flush to the wall, the gaps created by this were considered too small to be considered a potential bat roosting feature. A single storey brick-and-mortar porch was recorded on the north-eastern elevation of the building which supported a flat, felt lined roof which was well-sealed.

Internal Description

No separate loft space/roof void was present.

Evidence of Bats

None observed at the time of the assessment.

Potential Roost Features

None observed at the time of the assessment.

Suitability to Support Roosting Bats

Negligible.

B8

External Description

A single story building comprised of brick-and-mortar which had been rendered and painted. The building was clad with painted shiplap cladding around the windows on the top half on the northern elevation. The building supported a flat roof comprised of felt in good condition. A painted timber soffit box was recorded on the building which was sealed on the gables ends. However, the eaves of the building were open on the south-western and northern elevations where the soffit box was not flush to the wall. An open air vent was also recorded on the northern elevation.

Internal Description

No separate loft space/roof void was present.

Evidence of Bats

None observed at the time of the assessment.

Potential Roost Features

The open eaves on the south-western and northern elevations and open air vent on the northern elevation could provide potential roosting opportunities for crevice dwelling bat species.

Suitability to Support Roosting Bats

Low.

B9

External Description

A single story comprised of brick-and-mortar in good condition which had been rendered and painted. The building supported a double pitched roof of slate tiles and concrete ridge tiles in good condition for the majority; some mortar was missing from the ridge tiles and some of the roof tiles were lifted on the eastern elevation. The building supported a painted timber fascia board on the gable ends in poor condition, that was coming away in places. A painted timber soffit box was recorded on all other elevations, which was well-sealed.

Internal Description

A small loft space approximately 0.5m floor to apex, was present but not accessible below each pitch.

Evidence of Bats

None observed at the time of the assessment.

Potential Roost Features

Missing mortar from the ridge tiles and some of the lifted roof tiles could provide potential roosting opportunities for crevice dwelling bat species. The same features could also provide internal access into a loft space which could provide a roosting space for free hanging bat species.

Suitability to Support Roosting Bats

Low.

B10
External Description
A disused shed comprised of a timber frame in poor condition, with timber shiplap cladding. The building was open fronted on the eastern elevation and supported a monopitched felt roof with a timber barge board in reasonable condition.
Evidence of Bats
None observed at the time of the assessment.
Potential Roost Features
None observed at the time of the assessment.
Suitability to Support Roosting Bats
Negligible.

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

T1
Description
Mature silver birch approximately 16m in height,
Evidence of Bats
None observed at the time of the assessment.
Potential Roost Features
A large split in the main trunk of the tree on the western elevation from the ground to approximately 4m high, which could lead to a potential cavity.
Suitability to Support Roosting Bats
Moderate.

T2
Description
Mature silver birch approximately 16m in height.
Evidence of Bats
None observed at the time of the assessment.
Potential Roost Features
An open callus roll potentially leading to a cavity space on the southern elevation from the ground to approximately 4m high.
Suitability to Support Roosting Bats
Moderate.

T3
Description
Mature ash approximately 120 in height.
Evidence of Bats
None observed at the time of the assessment.
Potential Roost Features
Dead ivy *Hedera helix* branch up the main stem could provide potential roosting spaces for crevice dwelling bat species.
Suitability to Support Roosting Bats
Low.

3.4 GCN HSI Assessment

3.4.1 A summary of the HSI results of waterbody WB1 are presented in Table 8 below.

Table 8: Summary of HSI Results.

Suitability Indices	HSI Score
Location	1

Pond Area	0.85
Pond Drying	0.9
Water Quality	0.67
Shade	1
Fowl	0.67
Fish	0.33
Ponds	0.55
Terrestrial Habitat	1
Macrophytes	0.33
Overall Score	**0.67 = Average**

4 DISCUSSION AND RECOMMENDATIONS

4.1 Statutory Designated Sites

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

4.2 Protected and Notable Habitats

4.2.1 Overall, three parcels of ancient woodland and 23 parcels of HPI were identified within the zone of influence as part of the desk study. The nearest parcel of ancient woodland was located approximately 30m south of the Site whilst the nearest parcel of HPI, a parcel of broadly classified deciduous woodland which likely qualifies as 'lowland mixed deciduous woodland' HPI under the NERC Act 2006, bordered the southern, eastern and western Site boundaries.

4.2.2 Given the distance between the Site and the nearest parcel of ancient woodland and given the size of the Site and nature of the proposed development, adverse effects upon ancient woodland are not considered likely.

4.2.3 However, a parcel of broadly classified deciduous woodland HPI was located within the eastern aspect of the Site and bordered the western and southern Site boundaries. In addition, the broadly classified deciduous woodland HPI is also considered functionally linked to the ancient woodland parcel to the south of the Site.

4.2.4 The full extent of the proposed development was unknown at the time of writing this report.

4.2.5 In accordance with the mitigation hierarchy, the first step should always be to avoid any negative adverse impacts on biodiversity including ancient and lowland mixed deciduous woodland HPI. For this reason, the development proposals should be updated to ensure no works associated with the proposed development are to be undertaken within the root protection areas (RPAs) of all trees forming the adjacent woodland parcels. This exclusion zone should be informed by an arboricultural assessment and be demarcated with exclusion fencing, in the form of Heras fencing (tree protection fencing), installed around the woodland edge, to ensure that the RPAs are not disturbed or encroached upon during the demolition or construction phases of the proposed development.

4.2.6 It is also recommended that the heras fencing be upgraded to timber post and rail fencing post-construction, to ensure that future encroachment of the woodland edge is avoided.

4.2.7 The development proposals also have the potential to indirectly adversely affect the woodland parcels and their qualifying features. Indirect adverse impacts primarily include increased levels of noise, light and visual disturbance, particularly during the demolition and construction phases of the proposed development.

4.2.8 In addition, the proposed development could result in indirect adverse impacts on the structure and integrity of the adjacent woodland parcels, for example due to ground, dust and particulate pollution. It is therefore 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 the woodland and other surrounding 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.

4.2.9 Construction and demolition works should take place during periods of low rainfall and predicted dry weather, to reduce chemical runoff from the Site to retained woodland parcels within the wider surroundings.

4.2.10 Providing general construction environmental best practice measures and the recommended mitigation measures detailed above are implemented, for example, damping of work sites and haul routes to minimise the spread of dust, adverse effects upon retained woodland parcels within the Site and wider surroundings of the LWS are not considered likely.

4.2.11 It is also further recommended that the lighting mitigation strategy as detailed in paragraph 5.3.18 below, be adhered to throughout.

4.2.12 If it is not possible to retain all trees within the woodland parcel, any tree loss should be compensated for on a minimum 2:1 ratio in case of any failures in planting.

4.3 Protected and Notable Species

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

Bats

4.3.2 All bats are European protected species (EPS) and both individual animals and their roosts are afforded protection under the Conservation of Habitats and Species Regulations 2019 (as amended) and the Wildlife and Countryside Act, 1981 (as amended). Certain bat species are also listed as Species of Principal Importance (SPI) under the NERC Act 2006.

4.3.3 As part of the PBRA, buildings B2-B4, B8 and B9 were identified as exhibiting features i.e lifted, damaged or missing tiles with potential to support roosting bats. On this basis, buildings B2-B4 and B8 was identified as having low suitability to support roosting bats. All other buildings within the Site were identified as having negligible suitability to support roosting bats and therefore roosting bats are highly likely absent from the remaining buildings.

4.3.4 Given that the buildings B2-B4, B8 and B9 are proposed to be demolished, the proposed development could result in the damage or destruction of a potential bat roost site.

4.3.5 Therefore, further emergence surveys are required to determine presence or likely absence of bat roosts within buildings B2-B4, B8 and B9 to determine any subsequent requirements for mitigation, compensation and/or licences to facilitate the proposed development.

4.3.6 Building B2-B4, B8 and B9 was identified as having low potential to support roosting bats. It is therefore recommended that a single dusk emergence survey be undertaken on each building. All bat emergence surveys should be undertaken between May and August inclusive.

4.3.7 The findings of the bat emergence/re-entry survey and any subsequent requirements for mitigation and compensation and/or licenses to facilitate the proposed development should be presented within a stand-alone (phase 2) report or EcIA.

4.3.8 It should be noted that should a bat roost or roosts be found, a EPSM licence may be required to permit works that would potentially cause disturbance. A EPSM licence for development is issued by Natural England under Regulation 53(2)(e) of The Conservation of Habitats and Species Regulations (2019). This application process can a minimum of six weeks.

4.3.9 As part of the PBRA, trees T1-T3 were identified as exhibiting features with potential to support roosting bats. Trees T1 and T2 were identified as having moderate suitability to support roosting bats whilst tree T3 was identified as having low suitability to support roosting bats.

4.3.10 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.

4.3.11 The full extent of the proposed development was unknown at the time of writing this report. However, trees T1, T2 and T3 are anticipated to be retained as part of the proposed development. On this basis,

no further surveys are considered necessary on these trees, providing the lighting mitigation strategy as detailed in paragraph 5.3.18 is adhered to.

4.3.12 However, if it is not possible to retain trees T1-T3, the proposed development could result in the damage or destruction of a bat roost site. on this basis, further surveys of trees T1-T3 would be required.

4.3.13 Trees T1 and T2 was identified as having moderate potential to support roosting bats. It is therefore recommended that a single dusk emergence and dawn re-entry survey be undertaken to comprehensively determine presence/likely absence of roosting bats within each tree.

4.3.14 Tree T3 was identified as having low potential to support roosting bats. As a precaution, it is recommended that an inspection of tree T3 be undertaken immediately prior to felling 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.

4.3.15 Other precautionary mitigation measures to be implemented may include soft-felling sections of the tree that contain potential roost features. This involves gradually sectioning the trunk and/or limbs and lowering sections to the ground by hand or by using ropes. As a further precaution, the felling/pruning of all trees should be undertaken outside the core hibernation period (between November and February).

4.3.16 The Site was considered to provide suitable commuting and foraging habitat for bats primarily waterbody WB1 located in close proximity to woodland edge.

4.3.17 The full extent of the proposed development was unknown at the time of writing this report.

4.3.18 Providing these features are to be retained throughout the proposed development, the proposed development is considered unlikely to result in the loss of an important foraging habitats. The proposed development is also considered unlikely to result in the 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 paragraphs 5.2.4 and 5.2.3 above and in relation to lighting described below, are implemented during the demolition, construction and operational phases of the proposed development. It is recommended that any new artificial lighting associated with the proposed development aims to:

- Maintain a dark corridor along the woodland edge, around waterbody WB1 and trees T1-T3;
- Use minimum light levels necessary. For example, there should be times throughout the evening (when bats are most active) when all outdoor security lights are unlit to avoid affecting bat activity. Lighting can also be installed using a timer or movement sensor to avoid long periods of an area being lit at night;
- Lighting should be a warm white spectrum and feature peak wavelengths higher than 550nm to lower the range of species affected by lighting. Using LED luminaires where possible and avoid luminaires with UV elements, specifically avoiding metal halide and fluorescent sources (Institute of Lighting Professionals, 2018); and
- Internal luminaries can be recessed where installed in proximity to windows to reduce glare (Institute of Lighting Professionals, 2018) and light spill and use hoods, louvres or other similar design features to avoid light spill and direct light away from areas of mature vegetation.

4.3.19 If it is not possible to retain all suitable bat foraging and commuting habitats and implement mitigation measures, the proposed development could 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.

4.3.20 Therefore, further activity surveys may be required to identify the levels of bat activity across the Site, what bat species are using the Site any whether there are any important foraging and commuting

routes within the Site. The results of the surveys will determine any subsequent requirements for mitigation, compensation and/or licences to facilitate the proposed development.

Hazel Dormice

4.3.21 Hazel dormice *Muscardinus avellanarius* are EPS and are afforded protection under the Conservation of Habitats and Species Regulations 2019 (as amended) and the Wildlife and Countryside Act, 1981 (as amended). Dormice are also listed as SPI under the NERC Act 2006.

4.3.22 The Site supported some suitable semi-natural habitat for dormice comprising dense scrub parcels and woodland edge, which are arboreally connected to mature woodland parcels immediately adjacent the Site.

4.3.23 Given the Site is an active dog kennels and the habitats on Site are regularly subject to disturbance, the Site is considered to provide sub-optimal foraging, commuting, nest building and hibernating opportunities for dormice.

4.3.24 The full extent of the proposed development was unknown at the time of writing this report.

4.3.25 In the event that dormice are present within the Site and wider surroundings, the proposed development could result in the death or injury, or disturbance to dormice or could result in the damage or destruction of a dormouse breeding site or resting place.

4.3.26 Therefore, in the first instance, and following the mitigation hierarchy, it is recommended that the development proposals are updated to ensure the proposed development does not negatively impact the adjacent woodland parcels. The proposed development should ensure that no works are to be undertaken within the RPAs of the woodland edged, which should be informed by an arboricultural assessment. It is also recommended that exclusion fencing, in the form of heras fencing (tree protection fencing), be installed around the woodland edge, to ensure that the RPAs are not disturbed or encroached upon during the demolition or construction phases of the proposed development.

4.3.27 On this basis, approximately 0.1ha of suitable dormouse habitat is anticipated to be lost as part of the proposed development. It should be noted that aerial imagery of the Site (Google Earth 2023) shows that the suitable dormouse habitat within the Site has been periodically cleared over the years with the latest of which was undertaken in 2019. It should also be noted that until 2021, aerial imagery shows that the scrub parcels within the Site were not as dense as they were when recorded during the extended phase 1 habitat survey.

4.3.28 Providing the woodland edge and associated RPAs is protected throughout all phases of the proposed development, the proposed development is considered unlikely to disturb a dormouse or cause damage or destruction to a dormouse breeding site or resting place, providing the mitigation measures detailed below are adhered to. Thus, no further surveys are considered necessary.

4.3.29 This is further supported by guidance detailed by Natural England. For European protected species (such as dormice) Natural England's stance is that: "If the consultant ecologist, on the basis of survey information and specialist knowledge or the species concerned, considers that on balance the proposed activity is reasonably unlikely to result in an offence under Regulation 41 or 45 then no licence is required" (Natural England, 2013).

4.3.30 However, as a precaution, it is recommended that a systematic fingertip search be conducted by a suitably qualified ecologist to search all areas of habitat 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. In the unlikely event that dormice, or evidence of dormice are found, all work must stop and advice sought from a suitably qualified ecologist.

4.3.31 It should be noted that should a dormouse or nest be found, an EPSM licence may be required to permit works that would potentially cause disturbance, damage or destruction of habitat or individuals. An EPSM licence for development is issued by Natural England under Regulation 53(2)(e)

of The Conservation of Habitats and Species Regulations (2019). This application process can take a minimum of six weeks.

4.3.32 In addition, the sensitive lighting mitigation strategy, as detailed in paragraph 5.3.18, must be adhered to throughout the demolition, construction and operational phases of the development to ensure that all suitable retained dormouse within and surrounding the Site, remain dark.

4.3.33 It is also recommended that the pollution prevention protocol as detailed in paragraphs 5.2.8 to 5.2.10 above, be adhered to throughout.

4.3.34 Furthermore, it is recommended that the heras fencing, as detailed in paragraph 5.3.26 above, be upgraded to timber post and rail fencing post-construction, to ensure that future encroachment of the woodland edge is avoided.

4.3.35 If it is not possible to incorporate the above mitigation measures, further dormice surveys may be required to determine dormouse presence/likely absence across the Site. The results of the surveys will determine any subsequent requirements for mitigation, compensation and/or licences to facilitate the proposed development.

4.3.36 To compensate for the loss of suitable dormouse habitat, it is recommended that the all new plot boundaries be planted with species-rich hedgerows.

4.3.37 The hedgerows should support approximately five woody plant species planted per metre of hedgerow, in double staggered rows and allowed to grow to a minimum height of 2m. The hedgerows should be managed on an annual rotation, whereby half of the 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:

- Oak;
- Hazel;
- Hawthorn;
- Blackthorn *Prunus spinosa*;
- Field maple *Acer campestre*;
- Holly *Ilex aquifolium*;
- Elder *Sambucus nigra*; and
- Crab apple *Malus sylvestris*.

Great Crested Newts and other Amphibians

4.3.38 GCN are EPS and are afforded protection under the Conservation of Habitats and Species Regulations 2019 (as amended) and the Wildlife and Countryside Act, 1981 (as amended). GCN and common toad *Bufo bufo* are also listed as SPI under the NERC Act 2006.

4.3.39 Habitats recorded within the Site particularly the grassland of a longer sward, grassland/scrub interface and log piles (Target Note 1) were considered to provide foraging, commuting and sheltering opportunities for GCN during their terrestrial lifecycle phase.

4.3.40 A single waterbody (waterbody WB1) was recorded within the Site whilst an additional two waterbodies were identified within a 250m radius of the Site (waterbodies WB1 and WB3). A GCN HSI assessment was undertaken on waterbody WB1 (Table 8) identified the waterbody as being of 'average' habitat suitability to support breeding GCN.

4.3.41 Direct impacts on suitable waterbodies for breeding GCN are not anticipated. However, the proposed development could result in adverse direct and indirect impacts on GCN, resulting in the death or injury, or disturbance to GCN during their terrestrial phase or result in the damage or destruction of a GCN resting place such as a hibernation site.

4.3.42 On this basis, further surveys of waterbody WB1 are therefore recommended to determine GCN presence/likely absence, which would inform any subsequent requirements for mitigation, compensation and/or licences to facilitate the proposed development. Further 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.

4.3.43 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.

4.3.44 Waterbody WB2 is located immediately east of the Site within a residential garden whilst waterbody WB3 is located approximately 55m west of the Site set within woodland. It is also recommended that a HSI assessment of this waterbody be undertaken. Depending on the HSI findings, further GCN presence/likely absence surveys may be required as detailed above.

4.3.45 The findings of the GCN presence/likely absence survey and population class assessment (if required) and any subsequent requirements for mitigation and compensation and/or licenses to facilitate the proposed development should be presented within a stand-alone (phase 2) report or EcIA.

4.3.46 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. A EPSM licence for development is issued by Natural England under Regulation 53(2)(e) of The Conservation of Habitats and Species Regulations (2019). This application process can take a minimum of six weeks.

4.3.47 It should be noted that District Level Licensing (DLL) has recently been introduced to Kent. DLL is an attempt to introduce a new and streamlined alternative to the traditional surveys, mitigation and compensation and the licensing process detailed above. This is a strategic approach, funded by developer contributions, which allows habitat compensation to be delivered elsewhere in the district to ensure that local conservation status of GCN can be maintained. Compensatory habitat is created off site by a third party prior to development and developers pay a fee based on an estimated impact on GCN. Consequently, no survey work or mitigation and compensations measures (e.g. fencing, trapping and post-development monitoring) are necessarily required. However, DLL is not likely to be the best option for all developments and in some instances is more costly than the traditional surveys, mitigation and compensation and the licensing process detailed above.

4.3.48 The first step in DLL is submitting an enquiry form to Natural England. Once submitted, Natural England will assess whether the project qualifies for DLL. If the project does qualify, Natural England will assess the Site and all of the information provided and provide a Impact Assessment and Conservation Payment Certificate stating how much the developer will have to pay to compensate for the loss of the suitable habitat on-site, as well as a fee for joining the DLL scheme.

Reptiles

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

4.3.50 Habitats recorded within the Site particularly the grassland of a longer sward, grassland/scrub interface and log piles (Target Note 1) were considered to provide foraging, commuting, basking and sheltering opportunities for reptiles.

4.3.51 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.

4.3.52 Therefore, further reptile surveys are required to determine reptile presence/likely absence, reptile species diversity and population sizes. The results of the surveys will determine any subsequent requirements for mitigation and compensation to facilitate the proposed development.

4.3.53 Reptile presence/likely absence surveys should be undertaken in accordance with best practice survey standards (Froglife, 1999). It is therefore recommended that a minimum of seven survey visits be undertaken to check artificial refugia and natural refugia present for presence of reptiles. Survey visits should be spread out over the active reptile season between April and September inclusive during periods of dry, warm weather with daytime temperatures between 9-18°C.

4.3.54 The findings of the reptile survey and any subsequent requirements for mitigation and compensation to facilitate the proposed development should be presented within a stand-alone (phase 2) report or EcIA.

Birds

4.3.55 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.

4.3.56 The Site supported scrub, buildings, trees and is bordered by woodland parcels which were considered to provide good nesting and foraging opportunities to a wide range of common bird species.

4.3.57 The full extent of the proposed development was unknown at the time of writing this report. however, it is understood that all trees forming the adjacent woodland parcels are to be retained as part of the proposed development. However, works associated with any proposed development of the Site, for example habitat clearance, 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.

4.3.58 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).

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

Badgers

4.3.60 Badgers *Meles meles* and their setts are protected under The Badger Act (1992).

4.3.61 No evidence of badger field signs (for example hairs, latrines, dung pits, snuffle holes, mammal paths or scratching posts) or setts were recorded within the Site during the survey.

4.3.62 Habitats throughout the Site were considered to provide good sett building and foraging and commuting opportunities for badgers given the suitable woodland habitat present within the immediate Site surroundings.

4.3.63 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.

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

4.3.65 As a precautionary approach, it is recommended that a pre-works survey of the Site and a 30m radius around the Site be undertaken immediately prior to the proposed development becoming operational to ensure no new setts have become established. The results of the surveys will determine any subsequent requirements for further survey, mitigation and compensation to facilitate the proposed development.

4.3.66 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

4.3.67 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.

4.3.68 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.

4.3.69 Due to its size and isolation from a connected network of waterbody WB1 is considered highly unlikely to support a viable population of water voles and otters. The banks of the waterbody were shallow sided which precludes burrowing and holt creating opportunities. In addition, the waterbody lacked sufficient vegetation which would provide appropriate space, cover or seclusion for water voles and otters. Therefore, waterbody WB1 are considered unlikely to support otters and water voles. On this basis, the Site was identified as having negligible potential to support otter and water vole and are therefore not considered an ecological constraint and are not considered further in this report.

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

4.3.71 The Site supported some suitable semi-natural habitat 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.

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

4.3.73 Furthermore, any new boundaries required as part of the proposed development should be permeable to hedgehogs in order to main 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.

4.3.74 In addition, parcels of dense scrub, shrubs and tussocky grassland and features such as deadwood and brash piles should be maintained and/or created across the Site in order to provide important foraging and nesting opportunities for hedgehogs.

Invertebrates

4.3.75 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.

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

4.3.77 All protected invertebrate species listed on Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended) are considered likely absent from the Site as their preferred food plants were either absent or not recorded in sufficient quantity to otherwise support a viable population.

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

Plants

4.3.79 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.

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

4.3.81 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*.

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

4.3.83 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.

4.4 Ecological Enhancements

4.4.1 Under Section 40 of the NERC Act 2006 there is a duty to have regard to biodiversity conservation. In addition, the National Planning Policy Framework (2021) and the Dartford Core Strategy (Dartford Council, 2011) encourages ecological enhancement to be integrated into development projects in order to achieve an overall net-gain in biodiversity. Given the above, the following enhancement recommendations should be considered and incorporated into the final design proposals:

- Installation and maintenance of artificial bat bricks or bat tubes (i.e. Schwegler 1FR and 2FR bat tubes and Schwegler 1GS bat brick or similar) into any new buildings and installation of bat boxes (i.e. Schwegler 2FN or similar) on to suitable retained trees to increase the roosting opportunities for bats within the Site. Any artificial roosting features should be placed between 3m and 6m above ground in a variety of locations at slightly different heights and preferably positioned facing a southerly or south-easterly direction.

- Installation and maintenance of artificial bird nest boxes onto any retained trees and new buildings on Site to increase nesting opportunities for many bird species. Given their designation as SPI, particular consideration should be given to installing house sparrow *Passer domesticus* (i.e. Schwegler 1SP or similar) and starling *Sturnus vulgaris* (i.e. Schwegler 3S or similar) nest boxes onto any retained trees and any new buildings within the Site.
- Incorporation of dead wood habitat piles within areas of retained suitable habitat for example underneath tree canopies and along pond margins. These are used by both invertebrates such as the stag beetle which is a SPI and by reptiles and widespread amphibians as refugia.
- Creation of a pond designed and managed for wildlife. Ponds provide valuable foraging opportunities for a wide variety of protected and notable species including amphibians and reptiles, particularly grass snakes. As general guidance, any newly created pond(s) should exhibit shallow pond margins (less than 5˚) to allow marginal vegetation to grow and should contain deeper open areas (at least 60 cm) within the centre of the pond. In addition, consideration should be given to the planting of additional marginal plant species including:
    - Branched bur reed *Sparganium erectum*;
    - Broad-leaved pondweed *Potomogeton natans*;
    - Yellow flag iris;
    - Floating sweet-grass *Glyceria fluitans*;
    - Greater pond sedge *Carex riparia*;
    - Marsh marigold *Caltha palustris*;
    - Meadowsweet *Filipendula ulmaria*;
    - Water forget-me-not *Myosotis scorpioides*;
    - Water mint *Mentha aquatic*; and
    - Water plantain *Alisma plantago aquatic*.
- Incorporation of a 'Beebrick' into the new building(s). The 'Beebrick' should be positioned facing a southerly direction, in an area that receives a lot of light and warmth throughout the day and without vegetational obstruction to the entrances. It is recommended that for every Beebrick installed, a minimum of 1m2 of 'bee friendly' plant species be planted to support any solitary bees that would likely utilise the feature. The plant species could include:
    - Common yarrow *Achillea millefolium*;
    - Greater knapweed *Cantaurea scabiosa*;
    - Common foxglove *Digitalis purpurea*;
    - Hemp agrimony *Eupatorium cannabinum*;
    - Common honeysuckle *Lonicera periclymenum*;
    - Wild marjoram *Origanum vulgare*; and
    - Guelder rose *Viburnum opulus*.

4.5 Biodiversity Net Gain

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

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

4.5.3 Biodiversity Net Gain is a move away from an opinion-based assessment to a more quantitative, measurable and transparent based assessment using the DEFRA biodiversity metric tool to quantify biodiversity losses and gains in terms of 'biodiversity units'. The DEFRA biodiversity metric tool can be used to calculate the ecological baseline value of a site pre-development and the predicted ecological value of a site post-development using detailed design proposals.

4.5.4 The NPPF (2021) 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.

4.5.5 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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6 APPENDICES

Appendix I: Site Location Plan

Basemap: Google Satellite (obtained through QuickMapServices QGIS plugin), Map data © Google

LEGEND:

Site Boundary

STATUS: FOR INFORMATION ONLY

PJC

Sussex Office: Rocks Yard, Victoria Rd, Herstmonceux, Hailsham, BN27 4TQ.
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CLIENT: Phikoon Willy

PROJECT:
Land at Tile Kiln Lane
Dartford
DA5 2BD

TITLE:
Appendix I: Site Location Plan

SCALE AT A4:	DRAWN:	APPROVED:
1:4,603	NS	NS
PROJECTION:	DATE:	DATE:
EPSG:3857	14/08/23	14/08/23

DRAWING No:
PJC/5291E/23/A1/V1

Appendix II: Legislation and Planning Policy

Legislation

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

The Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019 is the UK transposition of the European Council Directive on the Conservation of Natural Habitats and of Wild Flora and Fauna, 1992, or the 'Habitats Directive'. The directive provides protection of key habitats and species of European importance. Those key habitats and species are listed in Annexes II and IV of the directive.

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

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

The Wildlife and Countryside Act 1981 (as amended)

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

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

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

The Protection of Badgers Act 1992

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

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

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

The Natural Environment and Rural Communities Act (NERC) 2006

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

Hedgerows Regulations 1997

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

Wild Mammals (Protection) Act 1996

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

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

Species and Habitat Specific Legislation

Plants

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

The Conservation of Habitats and Species Regulations 2019 (as amended) have nine plants listed within Annex IV these are; creeping marshwort *Apium repens*, early gentian *Gentianella anglica*, fen orchid *Liparis loeselii*, floating-leaved water plantain *Luronium natans*, killamey fern *Trichomanes speciosum*, lady's slipper *Cypripedium calceolus*, shore dock *Rumex rupestris*, slender naiad *Najas flexilis*, and yellow marsh saxifrage *Saxifraga hirculus*. It is an offence to deliberately pick, collect cut, uproot or destroy any protected plant, or keep, transport, sell, or exchange, any live or dead such plant species, this applies to all stages of its life cycle.

Invasive Species

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

The frequently encountered invasive species within proposed development sites include floating pennywort *Hydrocotyle ranunculoides*, giant hogweed *Heracleum mantegazzianum*, Himalayan balsam *Impatiens glandulifera*, Japanese knotweed *Fallopia japonica*, New Zealand *pygmyweed*

*Crassula helmsi*i, rhododendron *Rhododendron ponticum* and certain hybrids of the above, some species may be native yet are listed for conservation purposes.

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

Invertebrates

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

Three invertebrates are listed under Schedule 2 of the Conservation of Habitats and Species Regulations 2019, fisher's estuarine moth *Gortyna borelii lunata*, the large blue butterfly *Maculinea arion* and lesser whirlpool ram's-horn snail *Anisus vorticulus*. It is an offence deliberately to kill, capture, or disturb a listed species, or to damage or destroy the breeding site or resting place of such an animal.

Amphibians

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

Great crested newts *Triturus cristatus* and natterjack toads *Epidalea calamita* are fully protected under Schedule 5 (in respect of section 9(4)(b) and (c) and (5) only) of the Wildlife and Countryside Act (1981, as amended) and the Conservation of Habitats and Species Regulations 2019. Reintroduced populations of 'native' pool frogs *Pelophylax lessonae* also receive the same protection. It is illegal to possess a protected species (alive or dead), deliberately capture, injure or kill, to intentionally or recklessly disturb, or to deliberately take or destroy the eggs of these protected species. It is also illegal to damage, destroy or intentionally or recklessly obstruct access to breeding or resting place used by these protected species'. All life stages of each species' are afforded the same level of protection.

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

Reptiles

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

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

Birds

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

Barn owls *Tyto alba* are 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) 2021

Published in 2021 the NPPF sets out the Government's planning policies for England and how these are expected to be applied by local authorities. It replaces all the Planning Policy Statements and Guidance (PPSs and PPGs). The NPPF emphasises the need for sustainable development, whilst specifying the need for protection of designated sites and priority habitats and priority species (as listed in section 41 of the Natural Environment and Rural Communities (NERC) Act 2006). Paragraph 174 of The National Planning Policy Framework (NPPF) states:

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

- protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan);
- recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland;

- maintaining the character of the undeveloped coast, while improving public access to it where appropriate;
- minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures;
- preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and
- remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate."

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

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

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

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

Paragraph 181 states:
"The following should be given the same protection as habitats sites:

- potential Special Protection Areas and possible Special Areas of Conservation;
- listed or proposed Ramsar sites; and

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

Paragraph 182 states:
"The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site."

The UK Biodiversity Framework (2011-2020).
The UK Biodiversity Framework is an important framework that is owned, governed and implemented by the four UK countries, assisted by Defra and JNCC in their UK co-ordination capacities. Although differing in details and approach, the four UK countries have published strategies which promote the same principles and address the same global targets: joining-up our approach to biodiversity across sectors; and identifying, valuing and protecting our 'Natural Capital' to protect national well-being now and in the future. This new framework has been developed to enhance the recovery of priority habitats and species in England (published under section 41 of the NERC Act 2006), thereby contributing to the delivery of the England Biodiversity Strategy. The framework has been developed and endorsed by the England Biodiversity Group and wider partnership. It is the starting point for a more integrated approach to biodiversity conservation in England, building on the strengths of the former UK Biodiversity Action Plan (BAP) process and improving those areas where insufficient progress was being made.

Dartford Core Strategy (Dartford Council, 2011)
The Dartford Core Strategy sets out the relevant policies for the control of development with regards to the natural environment and biodiversity. Dartford Core Strategy (Dartford Council, 2011).
Policy CS14:
Green Space 1
The Council will work with its partners to implement a multi-functional, high quality, varied and well-managed Green Grid. It will deliver this by:

a) Facilitating the creation of approximately 300 hectares of new or improved green spaces as part of new developments by 2026.
b) Requiring new development to make a contribution to the Green Grid network as follows:
- *Sites of 20 ha and over: at least 30% of the site area • Sites of between 20ha and 2ha: at least 20% of the site area*
- *Sites of less than 2ha will be considered on a site by site basis*

c) Where on-site open space is not appropriate or feasible, contributions may be sought for off-site improvements of open space in the vicinity of the site. Provision of specific types of green space and water bodies to cater for diverse community needs, including older children and teenagers; natural habitats and biodiversity corridors, and for mitigation of flood risk, will be provided within the overall allocation.
d) Working with its partners to implement the projects below, in addition to those in Policy CS 13, through the Council resources and grant funding and as part of the Thames Gateway Parkland project: • Darenth Valley corridor – an enhanced path and landscape from the River Thames through Central Park in Dartford Town Centre to the open countryside
- *Central Park – expansion of the park, increased facilities and restoration*

of its traditional character

• Thames Riverside Path – joining together the existing sections to create a continuous high quality path

• Dartford Marshes – delivery of the 'Managing the Marshes' project which aims to conserve, manage and enhance the grazing marsh

• New Countryside Gateway at South Darenth Lakes

• Better connectivity between Dartford and Gravesham countryside through Ebbsfleet Valley and A2 corridor

• Creation of a nature reserve east of Stone Lodge

• Significant biodiversity improvements at development sites include Ebbsfleet Valley, Swanscombe Peninsula and the Northern Gateway

e) Protecting and enhancing existing open spaces, including those shown in Diagram 8 and those identified and designated as locally important, the diverse landscape character, areas of nature conservation value, Sites of Special Scientific Interest, National Nature Reserves and local wildlife sites, community and ancient woodlands, as well as priority habitats and species, both in the urban and rural area. Biodiversity enhancements will be focussed on the Biodiversity Opportunity Areas. Protection and enhancement of biodiversity on brownfield development sites will be based on survey data.

2. Further guidance on the quality, quantity, management, maintenance and delivery of the component parts of the open space will be set out in the Development Management DPD and/or future SPDs.

Appendix III: Phase 1 Habitat Map

LEGEND:

- Target Note
- A3.1 - Scattered broadleaved trees
- A1.1.1 - Broadleaved woodland - semi-natural
- A2.2 - Scrub - scattered
- B2.2 - Neutral grassland - semi-improved
- C3.1 - Other tall herb and fern - ruderal
- G1 - Standing Water
- J1.2 - Cultivated/disturbed land - amenity grassland
- J3.6 - Buildings
- J5 - Hardstanding
- Site Boundary

STATUS: FOR INFORMATION ONLY

PJC

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CLIENT: Phikoon Willy

PROJECT:
Land at Tile Kiln Lane
Dartford
DA5 2BD

TITLE:
Appendix III: Phase 1 Habitat Map

SCALE AT A4:	DRAWN:	APPROVED:
1:2,384	NS	NS
PROJECTION:	DATE:	DATE:
EPSG:3857	14/08/23	14/08/23

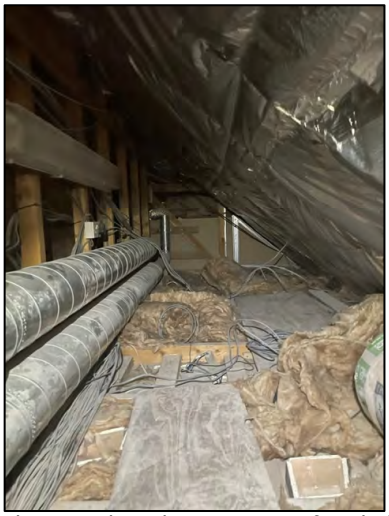
DRAWING No:
PJC/5291E/23/A3/V1

Basemap: Google Satellite (obtained through QuickMapServices QGIS plugin), Map data © Google

Appendix IV: Site Photographs

All photographs were taken by Nicolle Stevens BSc(Hons) ACIEEM on 18th July 2023.

Photograph 1: The eastern elevation of building B1.



Photograph 2: The western roof void of building B1.

Photograph 3: The lifted tiles on building B2.

Photograph 4: The main roof space of building B2.

Photograph 5: The north-eastern aspect of the Site. Building B9 can be seen in the centre of the photograph. Photograph taken from the south-eastern aspect.

Photograph 6: The inaccessible roof void of building B9.

Photograph 7: The damage on the southern gable end of building B9 which could provide potential bat roosting opportunities.

Photograph 8: Waterbody WB1.

Photograph 9: The southern Ste boundary.

Photograph 10: The south-western Site boundary.

Photograph 11: One of the log piles recorded along the western Site boundary.

Photograph 12: Potential bat roosting feature on tree T1.

Photograph 13: The gap where the soffit box does not meet the wall on the northern elevation of building B8.

Photograph 14: The south-eastern elevation of building B3. Photograph showing the damaged weatherboarding on this elevation.

Photograph 15: The northern elevation of building B4. Building B5 can be seen in the background.

Photograph 16: The missing mortar on the eastern gable end of building B4.

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