

Preliminary Ecological Appraisal

Land at Short Lane Alkham Kent

For: Hobbs Parker

Date: April 2023

Version: Original

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1 Summary

Site	Land at Short Lane, Alkham, Kent	
Central OS Grid Reference	TR 25933 42312	
Report Commissioned by	Hobbs Parker	
Report Purpose	To inform a full Planning Application.	
Date of Survey	20 th March 2023	
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Considerations	Description	Comments & Recommendations
Ecological Importance of the Site	The site comprises other neutral grassland and other native hedgerow habitats (in line with UK Habitat Classification definitions).	The grassland within the site is of negligible importance due to the heavy management of its habitats and poor plant diversity. The hedgerow is of local importance.
Further Assessments /	Statutory sites	Advice should be sought from the LPA regarding required financial contributions to mitigate increased recreational disturbance on nearby coastal SACs.
Surveys		
	Hedgerow	Replant the equivalent length of any hedgerow lost to development with native species of local provenance.
Avoidance and General	Reptiles	Clear the hedgerow when reptiles are active but outside of bird nesting season, or with an ecologist present. Maintain short vegetation on site and store materials off the ground.
Mitigation	Birds	Clear the hedgerow outside of bird nesting season but when reptiles are active or with an ecologist present.
	Hedgehog	Provide hedgehog links within any new fencing.
	Site measures	Cover trenches or provide planked escape routes. Do not leave temporary standing water.
Enhancements	To increase the ecological value of the site. Incorporate native species in proposed native hedgerows on the north-wester eastern boundaries, install wildlife boxed bats, and create a swathe of uncut grant hibernaculum.	
Conclusion	Avoidance and mitigation measures will ensure minimal impact to habitats and protected / notable species. The proposal offers opportunities for biodiversity enhancements within the site.	

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2 Introduction

2.1 Background

David Archer Associates was commissioned by Hobbs Parker to undertake a Preliminary Ecological Appraisal (PEA) at Short Lane, Alkham, Kent, CT15 7BZ herein referred to as 'the site'. This report will support a planning application for eight residential units with associated soft and hard landscaping.

2.2 Site Location and Description

The site is located in the village of Alkham at central Ordnance Survey Grid Reference TR 25933 42312. The site totals c. 0.4ha, comprising a hedgerow and neutral grassland and sits in lower ground within the Alkham Valley.

The site is situated within a semi-rural location and surrounded by residential units, gardens and driveways to the north, the grassland found on-site continues to the south and east, and Short Lane lies to the west. The wider area comprises rural and semi-rural settlement, agricultural land, pastureland, hedgerows and pockets of deciduous woodland.

2.3 Scope of Survey

The PEA comprised a single visit to the application site. The study area was also extended to consider the following ecological features according to certain distances around the site boundary:

- 5km for statutory designated sites for nature conservation that form part of the National Site Network (NSN) and Ramsar sites;
- 2km for statutory sites of national and local importance designated for nature conservation;
- 2km for non-statutory sites designated for nature conservation;
- 2km for protected and notable species records;
- 2km for granted European Protected Species Mitigation (EPSM) licences;
- 500m for Priority Habitats;
- 250m for water-bodies (in relation to great crested newts); and

2.4 Development Proposal

The proposed development includes construction of eight residential units with associated soft and hard landscaping (**Figure 2.1**). This requires removal of c. 45m of hedgerow on the south-western boundary and removal of c. 0.3ha neutral grassland. The remaining c. 0.1ha neutral grassland is proposed to be planted with tree species.

2.5 Objective

The objective of this PEA is to identify any further ecological surveys and / or mitigation required, and potential enhancement opportunities in accordance with planning policy, and European and UK wildlife legislation (**Appendix 1**).



Figure 2.1: Proposed Development Plan (APX Architecture, January 2023, Drawing number: 22_114_SK01)

3 Methodology

3.1 Surveyor

The site was surveyed by Ecologist Flora Haynes, who is licensed to survey for great crested newts, bats and hazel dormice (licence numbers: 2018-34205-CLS-CLS 2019-43873-CLS-CLS and 2019-42962-CLS-CLS respectively). Flora is also an associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and subject to the CIEEM Professional Code of Conduct. Assistant Ecologist Chelsea Evans assisted with the survey.

3.2 Desk Study

Natural England's Multi-Agency Geographic Information for the Countryside (MAGIC) database was accessed on 10th March 2023 for information on statutory sites designated for nature conservation within a 2km radius of the site. Consideration for NSN sites was extended to a 5km radius where the potential risk of impact to interest features of such sites may extend over a wider area. Such sites include Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). A 5km search radius was also applied to internationally designated Ramsar sites, as well as sites currently under public consultation for future designation as SACs, SPAs and Ramsar sites.

The MAGIC Impact Risk Zones (IRZs) were used to assess whether the proposed development may impact on any Sites of Special Scientific Interest (SSSI), and thus whether consultation with Natural England is needed to discuss how impacts might be avoided or mitigated.

Kent and Medway Biological Records Centre (KMBRC) was also consulted on 10th March 2023 for the following information for a 2km radius around the application site:

- Non-statutory nature conservation designations, such as Local Wildlife Sites (LWS);
- Legally protected species, such as great crested newts, reptiles and birds (extended to a 5km search radius for bats); and
- Notable / priority species, such as those listed under Section 41 of the NERC Act, 2006.

3.3 Habitat Survey

The survey involved a site visit on 20th March 2023 to record and map habitat types and ecological features within the site. The survey was undertaken in accordance with *Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017). The habitats present on-site have been characterised under the UK Habitat Classification Habitat Definitions V1.0 (The UK Habitat Classification Working Group, 2018) and the Biodiversity Metric 3.1 Technical Supplement (Panks *et al.*, 2021). A minimum habitat parcel size of 25m² was employed, and habitats were characterised to Level 5, the most detailed level available. Habitats were plotted on a Habitat Plan (**Appendix 2**). Features of interest were identified as target notes on the Habitat Plan (**Appendix 2**).

Hedgerows on site were also evaluated for their importance with reference to the *Hedgerows Regulations* 1997.

Aerial photographs, maps and field observations were used to identify habitats in the wider landscape which could be impacted by development of the site.

Weather conditions during the survey were 10°C, a light air - breeze (Beaufort 1-2), 100% cloud cover and dry.

3.4 Protected and Notable Species Assessment

The site was inspected for evidence of and assessed for potential to support protected and notable species. This included species listed under the *Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019*, the *Wildlife and Countryside Act 1981 (as amended) (WCA)*, and those given extra protection under the *Natural Environment and Rural Communities (NERC) Act 2006*, *Countryside and Rights of Way (CRoW) Act 2000*, and the *Protection of Badgers Act 1992*.

MAGIC was also accessed on 10th March 2023 to identify any European Protected Species Mitigation (EPSM) licences granted by Natural England within a 2km radius of the site.

The following protected / notable species were considered within the assessment.

3.4.1 Great Crested Newts and Common Toads

The site was assessed for suitability to support the legally protected great crested newt *Triturus cristatus* and the notable common toad *Bufo bufo*. The assessment was undertaken in accordance with the *Herpetofauna Workers' Manual* (Gent & Gibson, 2003) and the *Great Crested Newt Conservation Handbook* (Langton, et al., 2001).

Based on Natural England (2015) guidance, surveys of land greater than 250m from the nearest water-body are normally appropriate in relation to great crested newts when all of the following conditions are met:

- a) Maps, aerial photos, walkover surveys or other data indicate that the water-bodies have potential to support a large great crested newt population;
- b) The development footprint contains particularly favourable habitat, especially if it constitutes the majority available locally;
- c) The development would have a substantial negative effect on that habitat; and
- d) There is an absence of dispersal barriers.

The proposed development does not meet criteria a, b or c above, and therefore consideration was given to water-bodies within 250m of the site using OS maps and aerial images.

3.4.2 Reptiles

The site was assessed for suitability to support reptiles with reference to the *Herpetofauna Workers' Manual* (Gent & Gibson, 2003) and *Froglife Advice Sheet 10 An Introduction to Planning, Conducting and Interpreting Surveys for Snake and Lizard Conservation* (Froglife, 1999).

3.4.4 Bats

Potential for the site to support roosting, foraging and commuting bats was assessed in line with the Bat Conservation Trust (BCT) Bat Surveys for Professional Ecologists Good Practice Guidelines (Collins,

2016). There were no structures or trees within the site and therefore no suitable features for roosting bats.

3.4.4.1 Foraging and Commuting

The site was assessed for its suitability to support foraging and commuting bats according to **Table 3.1.**

Table 3.1: Classifying the suitability of bat foraging and commuting habitat (Collins, 2016).

Negligible	Negligible habitat features on site likely to be used by commuting or foraging bats.	
Low	Habitat that could be used by small numbers of commuting bats such as a gappy hedgerow or unvegetated stream, but isolated or poorly connected to habitat in the surrounding landscape. Suitable, but isolated habitat that could be used by small numbers of foraging bats such as a lone tree (not in parkland) or a patch of scrub.	
Continuous habitat connected to the wider landscape that bats may use for commuting such tree-lines and scrub or linked back gardens. Moderate Habitat that connects to the wider landscape that bats may use for foraging such as trees, so grassland and water.		
High	Continuous, high quality habitat that is well connected to the wider landscape that is likely to be used regularly by commuting bats such as river valleys, streams, hedgerows, tree-lines and woodland edge. High quality habitat that is well-connected to the wider landscape that is likely to be used regularly by foraging bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.	

3.4.5 Hazel Dormouse

The site was assessed for potential to support the hazel dormouse *Muscardinus avellanarius*, in accordance with the *Dormouse Conservation Handbook* (Bright, et al., 2006). Dormice typically use connected woodland, hedgerows and scrub that contain suitable food plants. Aerial images were used to assess the connectivity of any suitable habitat on the site to woodland and hedgerows within the wider area.

3.4.6 Other Species

The site was assessed for suitability to support other protected and notable fauna species / assemblages including birds, invertebrates and mammals.

3.4.7 Invasive Species

The site was searched for invasive plants such as giant hogweed *Heracleum mantegazzianum*, Himalayan balsam *Impatiens glandulifera*, Japanese knotweed *Fallopia japonica* and rhododendron *Rhododendron ponticum*.

3.5 Evaluation

Designated sites, habitats and species (where presence has been identified) have been evaluated in accordance with the *Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine* (CIEEM, 2018).

These guidelines aim to give consistency in evaluating the importance of the ecological features within and around a site, which help inform any effects or impacts a scheme will have upon them.

A value of the ecological features (designated sites, habitats or species) has been assigned according to their level of importance using the following terms:

- International and European
- National
- Regional
- Local
- Site
- Negligible

3.6 Limitations and Assumptions

Access was available to the entire site and the baseline conditions reported represent those identified at the time of the survey. Although a reasonable assessment of the site can be made during a single survey, seasonal variations are not observed.

The survey date falls outside the optimal season for botanical work. However, the habitat descriptions and evaluations are considered to be accurate due to the common and widespread habitats recorded and the vegetation being clearly visible at the time of survey.

This PEA provides an overview of the likelihood of protected / notable species occurring on the site (negligible, low, moderate, or high). Absence of a species cannot be presumed where no evidence was found. Further surveys have been recommended where there is reasonable likelihood of a protected species being present and impacted by the development proposal. This is based on the suitability of the habitat and any evidence observed.

This PEA does not constitute a full botanical survey or a Phase 2 pre-construction survey for Japanese knotweed.

The results of this assessment will remain valid for 12 months from the date of the survey i.e. until March 2024, after which the assessment should be updated, if a planning application has not been submitted within this timeframe.

4 Results and Evaluation

The following section presents the results, evaluation and discussion of the designated sites, habitats and protected / notable species, which may be impacted by the proposed development.

4.1 Designated Sites

4.1.1 Statutory Sites

4.1 and **4.2**. Prior to the UK's departure from the European Union, SACs formed part of a wider European network known as Natura 2000s protected sites; whilst the SPAs and SACs are now reclassified under UK law as forming part of the National Site Network (NSN), the sites designated prior to Brexit are likely to remain of **European importance**. SSSIs are of **national importance**.

The site falls within the Alkham, Lydden and Swingfield Woods SSSI Impact Risk Zone (IRZ), however the development does not meet criteria for impacts that would likely lead to a significant effect on this SSSI. Therefore, no consultation with Natural England and no mitigation is required for this SSSI.

There are no habitats or species within the site that serve as qualifying features of the nearby statutory sites. The application site is not ecologically linked to these sites due to the intervening land being predominantly arable fields and pasture with infrastructure such as roads and buildings (OS, 2023). The development is also highly unlikely to indirectly impact any designated sites in the local area due to its small-scale size and number of residential dwellings proposed. No significant impacts on statutory sites are expected.

There is a requirement for financial contributions to mitigate increased recreational disturbance on coastal SACs sites for new residential development in this area and advice should be sought from the Local Planning Authority, as recommended in **Section 5**. No further action is required in relation to other statutory designated sites.

Table 4.1: Statutory designated sites of international importance within 5km of the application site.

Site Name	Distance & Direction from Site	Area (ha)	Reasons for Designation
Lydden & Temple Ewell Downs (SAC)	c. 3.2 km NE	63.19	The site is designated for being a semi-natural dry grassland and scrubland faces on calcareous substrates dominated by GC4 Brachypodium pinnatum and GC5 Bromus erectus — Brachypodium. This site is also an orchid rich site.

Table 4.2: Statutory designated sites of national and local importance within 2km of the application site.

Site Name	Distance & Direction from Site	Area (ha)	Reasons for Designation
Alkham, Lydden and Swingfield Woods (SSSI)	Nearest woodland c. 0.3km SE	63.19	The site comprises several woodlands on steep chalk slopes and is designated for: • Calcareous grassland which is dominated by tor grass Brachypodium pinnatum, sheep's fescue Festuca ovina, creeping bent Argrostis stolonifera and upright brome Bromopsis erecta. Other species include squinancywort Asperula cynanchica, horseshoe vetch Hippocrepis comosa, chalk milkwort Polygala calcarea, fragrant-orchid Gymnadenia conopsea, autumn lady's tresses Spiranthes spiralis, early spider-orchid Ophrys sphegodes, burnt tip-orchid Orchis ustulata, musk orchid Herminium monorchis and slender bedstraw Galium pumilum; • The presence of woodland and scrub provides suitable habitats for breeding linnets Linaria cannabina and yellowhammers Emberiza citrinella; and • Supporting a wide range of invertebrates such as marbled white Melanargia galathea, adonis blue Lysandra bellargus, chalkhill blue Lysandra coridon, and silver-spotted skipper Hesperia comma.

4.1.2 Non-Statutory Sites and Priority Habitats

Non-statutory sites designated for nature conservation that are located within 2km of the application site are provided in **Table 4.3**. LWSs are of **local importance**.

The development will be small enough and located far enough from any of these sites for there to be any direct or indirect impacts on their habitats.

Further, there does not appear to be any direct public path, hydrological link or other habitat connectivity between these sites and the application site (OS, 2023). No significant impacts on non-statutory sites are expected.

No further action is recommended in relation to non-statutory designated sites.

Table 4.3: Non-statutory sites within 2km of the application site.

Site Name	Distance & Direction from Site	Reasons for Designation
DO35 Alkham Churchyard (LWS)	0.4km W	Information not provided.
DO33 Malmain's Manor Pastures (LWS)	0.7km NW	Information not provided.

DO13 South Alkham Farm and Lockeringe Wood (LWS)	1.0km SW	Information not provided.
DO39 Sunnyhill Farm Chalk Downland, Ewell Minnis (LWS)	1.1km NE	Information not provided.
DA09 St Radgund's Valley (LWS)	1.25km SE	Information not provided.

Priority Habitats (Section 41, NERC Act 2006) are present within 500m. These include lowland calcareous grassland, ancient woodland and deciduous woodland. The nearest of these is deciduous woodland and calcareous grassland, located c. 160m to the north-west and c. 160m to the north respectively. No impacts are expected to Priority Habitats due to the distance between them and the site. No further action is required.

4.2 Habitats

The habitats below were recorded within the site during the survey. No protected, Habitats of Principal Importance (HPIE) or locally important floral species or habitats were recorded within the site during the survey. Habitat types are described below and shown on the Phase I Habitat Map (**Appendix 2**). Built linear features are present in the form of boundary fences (UK Habs code u1e applies), which are of no ecological importance so are not considered further in this report.

- Other neutral grassland (UK Habs code g3c)
 - Secondary code 61 (horse grazed) applies.
- Other native hedgerow (UK Habs code h2a6)
 - Secondary code 75 (active management) applies.

4.2.1 Other Neutral Grassland

The site comprises horse-grazed neutral grassland c. 1-2cm high with frequent perennial rye grass *Lolium perenne* and meadow grass *Poa* sp. (**Photo 4.1**). Other species present included ribwort plantain *Plantago lanceolata*, creeping buttercup *Ranunculus repens*, creeping thistle *Cirsium arvense*, common daisy *Bellis perennis* and dove's-foot crane's-bill *Geranium molle*. The neutral grassland lacks species diversity and structure. It is therefore of **negligible** importance.

No further action is required.

Prioto 4.1. Other neutral grassianu, facility south

Photo 4.1: Other neutral grassland, facing south

4.2.2 Other Native Hedgerow

An intact native hedgerow was recorded on the south-western boundary (**Photo 4.2**). The hedgerow is c. 1.5m wide and c. 2m tall and is dominated by hawthorn *Crataegus monogyna* with other woody species including occasional privet *Ligustrum* sp. and rose *Rosa* sp. A single hazel *Corylus avellana* was present at the very northern end. Ground flora comprises lords and ladies *Arum maculatum*, cleavers *Galium aparine*, common nettle *Urtica dioica*, lesser celandine *Ranunculus ficaria* and ground ivy *Glechoma hederacea*. The hedgerow is dense down to the base, so whilst actively managed, this management appears to be infrequent. The hedgerow is not considered to be important under the *Hedgerow Regulations Act 1997* due to the lack of native species and associated features. The hedgerow connects habitats south of the site to a hedgerow at the northern boundary and is therefore of **local** importance.

Further action has therefore been recommended in Section 5.



Photo 4.2: Eastern face of hedgerow, facing north-west

4.3 Protected and Notable Species

Records of protected / notable species for the last ten years have been considered within the assessment below.

4.3.1 Invertebrates

KMBRC did not return any records of invertebrates which are listed on *Schedule 5* of the *WCA*. Numerous records of Section 41 (NERC Act, 2006) moths and butterflies were returned.

Habitats to be significantly impacted by the proposals (neutral grassland and a hedgerow) are unlikely to support rare or notable species and limited nectaring opportunities are available for butterflies. The site therefore holds **negligible** potential for rare / notable invertebrates.

No further action is required.

4.3.2 Great Crested Newts and Common Toads

KMBRC did not return any records for great crested newt Triturus cristatus or common toad Bufo bufo.

There are no ponds located within the site. A dry ditch was present c. 15m south of the site which connects to a ditch west of the site which was also found to be dry. There was no vegetation present within either ditch to suggest they regularly hold water. There were no other waterbodies located within 250m (OS, 2023).

The majority of the site comprises short neutral grassland that represents poor quality terrestrial habitat for foraging, sheltering, commuting, and hibernating great crested newts and common toads. The site contains two wood piles that provide potential shelter or hibernation habitat (**Target Notes 1** and 2, **Appendix 2**), although one was predominantly stored off the ground. The hedgerow represents potential good quality terrestrial foraging, sheltering, commuting, and hibernating habitat. However, adult great crested newts tend to stay within c. 250m of their breeding pond (Langton, et al., 2001) and given the lack of connectivity to any breeding ponds it is considered highly unlikely that any individual great crested newts or common toads would be present on site.

The site therefore holds **negligible** potential for great crested newts and **impacts to other amphibians** are not expected.

No further action is required.

4.3.3 Reptiles

KMBRC returned records for 21 slow-worm *Anguis fragilis*, 12 adder *Vipera berus*, four common lizard *Zootoca vivipara* and three grass snake *Natrix helvetica*. The most recent records dated 2020 and these were for slow-worms and common lizards with the nearest record being c. 0.2km west for slow-worm.

The margin of the neutral grassland and hedgerow interface provides the habitat structure that slowworm and common lizard typically require and this habitat will be removed. Additionally, two wood piles (**Target Notes 1 and 2, Appendix 2**) may provide basking, foraging and resting areas for very low numbers of reptiles. The site therefore holds **low** potential reptiles. Given its small size and limited connectivity to other suitable habitat for reptiles, the removal of this habitat is not expected to affect the local conservation of reptile species. Further, new tree planting is proposed along the northeastern boundary which will ensure habitat connectivity between habitats to the north and south of the site remains.

There is however a potential risk of harm to individual reptiles during the proposed works and further action has been recommended in **Section 5**.

4.3.4 Birds

KMBRC did not return records of bird species listed as Annex I (Birds Directive) and / or Schedule 1 (WCA) that would be likely to breed on-site. The records included species of Birds of Conservation Concern (BoCC) (Stanbury et al., 2021) that could breed on-site as follows: dunnock *Prunella modularis* and house sparrow *Passer domesticus*.

The following birds were recorded during the survey: woodpigeon *Columba palumbus*, magpie *Pica pica*, house sparrow and dunnock.

Bird interest (nesting / foraging) is likely to be confined to the hedgerow. The site therefore holds **high** potential for low numbers of widespread species of nesting bird within the hedgerow. The site overall is, however, considered to hold **negligible** potential for bird species listed as Annex I (Birds Directive) and / or Schedule 1 (*WCA*). The small nature of the site and heavy levels of disturbance mean that the site has **negligible** potential for notable wintering bird species and assemblages.

Further action for nesting birds is recommended in **Section 5**.



KMBRC returned records for 11 bat species from within 5km of the site, dating from 1983 to 2021: serotine *Eptesicus serotinus*, Daubenton's bat *Myotis daubentonii*, greater horseshoe *Rhinolophus ferrumequinum*, greater mouse-eared bat *Myotis myotis*, whiskered bat *Myotis mystacinus*, Natterer's *Myotis nattereri*, Leisler's bat *Nyctalus leisleri*, noctule *Nyctalus noctula*, common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* and brown long-eared *Plecotus auritus*. These records comprised four maternity roosts, three hibernation roosts and 20 records of roosts of unknown type. The nearest roost record was for an unknown roost type for *Pipistrellus* sp. dated 2021 and located c. 0.3km west from the site boundary.

The table below provides a list of bat Mitigation Licences granted by Natural England within 2km of the site (MAGIC, 2023).

Table 4.4: Granted bat mitigation licence applications within 2km of the site.

Case Reference	Bat Species	Type of Roost	Distance & Direction	Licence Start & End Dates
EPSM2011-3426	Common pipistrelle, brown long-eared bat and Natterer's bat	Maternity roost	c. 1.6km SE	26.10.2011 – 31.08.2015

4.3.6.1 Foraging and Commuting

Suitable habitat for foraging and commuting bats was recorded within the site in the form of a c. 45m stretch of boundary hedgerow. The hedgerow connects to a residential boundary hedgerow to the north and forms part of a hedgerow which continues for c. 30m to the south where further hedgerows and vegetation are present. The hedgerow lies along Short Lane where artificial lighting is likely to cause some disturbance. The site is therefore of **moderate** suitability for foraging and commuting bats. C. 50m of tree planting is proposed along the north-eastern boundary, which will link to an existing hedgerow to the north and habitats to the south. It is considered that this will ensure habitat connectivity and foraging habitat is retained. There is a risk of disturbance to bats from artificial lighting during and post development.

Further action has been recommended in **Section 5**.

4.3.7 Hazel Dormice

KMBRC returned 16 records of hazel dormice *Muscardinus avellanarius* with the most recent dating 2021 and all records for c. 1.9km north-west.

Although woodlands are present within the wider landscape, the site is not well connected to these and the small amount of suitable hedgerow habitat on site is considered unlikely to support dormice or to be part of the local dormouse population's range. Dormice are therefore not expected to be present on site.

No further action is required.

4.3.8 Hedgehogs and Other Section 41 Priority / Rare Species

KMBRC did not return any records of hedgehog *Erinaceus europaeus*, brown hare *Lepus europaeus* or harvest mouse *Micromys minutus*.

The hedgerow habitat on site had **low** potential for hedgehog in terms of foraging and shelter. Suitable habitat is also present in the adjacent gardens.

Habitat within the site has **negligible** potential to be used by brown hares and harvest mice.

Further action for hedgehog has been recommended in **Section 5**.

4.3.9 Invasive Plants

No invasive plant species listed under Schedule 9 of the WCA were noted on site during the survey.

No further action is required.

5 Further Surveys, Avoidance, Mitigation and Enhancement Recommendations

This section discusses recommendations for further surveys, mitigation, and possible enhancements in line with relevant wildlife legislation and planning policy (see **Appendix 1**).

5.1 Further Surveys / Assessments

5.1.1 Statutory Sites

The proposed development lies within the impact zone whereby increases in residential dwellings may cause an increase in recreational pressure impacts on the designated features of nearby coastal SACs. Whilst MAGIC does not specify the designated site(s) to which this relates, it is likely to be Folkestone to Etchinghill Escarpment SAC and/or Dover to Kingsdown Cliffs SAC. The Local Planning Authority should therefore be consulted to confirm if financial contributions will be required to mitigate for potential increases in recreational pressure arising from the proposed development.



5.2 Avoidance and Mitigation

5.2.1 Hedgerow

Use the following measures to minimise impacts to hedgerows:

- Replacement native hedgerow planting equivalent to the lengths impacted of hedgerow (refer to Appendix 4 for suitable plants); and
- Link existing hedgerows where possible to preserve habitat connectivity.

5.2.2 Reptiles

To avoid potential impacts to reptiles the following measures should be implemented:

- The hedgerow should ideally be cleared in September or October on a warm, sunny day when reptiles are active with an ecologist present. If this is not possible the hedgerow should be cleared between March and August (inclusive) on a warm, sunny day and a nesting bird check would be required, as described in **Section 5.2.3** below. Any vegetation in this area should then be kept short until works are complete so that it does not become suitable for reptiles;
- The two wood piles on site should be removed between March and October on a warm, sunny day when reptiles are active with an ecologist present;
- The grassland on site should be maintained as a short sward until it is removed so that it does not become suitable for reptiles;
- During construction, any materials should be stored off the ground on pallets or similar to prevent reptiles from taking refuge under them; and

• In the unlikely event that a reptile is encountered during construction, stop works immediately and contact an ecologist for advice.

5.2.3 Birds

To avoid potential impacts to nesting birds the hedgerow should ideally be cleared under suitable weather conditions in September or October to avoid the main breeding bird season (March to August inclusive) but when reptiles are still active.

Alternatively, the hedgerow should be cleared between March and August (inclusive) under suitable weather conditions and an ecologist should check potential nesting habitat immediately before clearance. Any active nests identified must be retained *in situ* with a suitable buffer (to be determined by an ecologist) until the chicks have fledged and the nest is no longer active.

5.2.4 Bats

The following measures should be implemented within the development to reduce impacts on foraging and commuting bats caused by artificial lighting (BCT & ILP, 2018):

- Direct any task lighting used during construction away from boundary trees;
- Set any necessary security lighting on short timers with a sensitivity to large moving objects only;
- Consider installing internal light fittings in a recess where installed in proximity to windows facing the boundary vegetation in order to reduce glare and light spill;
- Limit lighting times to provide dark periods;
- Maintain the new tree planting in the east of the site as a dark corridor;
- If appropriate to the final design, consider screening as a means of reducing light spill to other boundary vegetation. This could take the form of soft landscaping, fences, walls or bunds. Fencing could also be overplanted with hedgerow or climbing species to add further ecological value to the site and soften its appearance;
- LED light sources should be used wherever possible due to their sharp cut-off, lower intensity, good colour rendition and dimming capabilities. A warm spectrum light (ideally <2700 Kelvin) should be used to reduce the blue light component. Lights should feature peak wavelengths higher than 550nm to avoid the component of light most disturbing to bats (Stone, 2012). Luminaires should be mounted on the horizontal, i.e. with no upward tilt. Avoid the use of UV light and do not use metal halide, fluorescent light sources; and
- As a last resort, use hoods or cowls to avoid light being directed at the sky or towards the boundary vegetation.

5.2.5 Hedgehog

In order to avoid / reduce potential impacts to hedgehogs, install any new garden fences with either a 13cm tall gap along the base or provide hedgehog links (13cm x 13cm holes at the base) at 10m intervals to allow hedgehogs to move freely between gardens and adjacent habitats.

5.2.6 General Site Measures

Use these precautionary measures to avoid / reduce impacts to wildlife:

- Cover any trenches, holes or deep pits overnight, or use secured planks to allow any animals
 that fall in to escape during construction. A member of staff should check the site at the end
 of each working day to ensure that these provisions to protect nocturnal species (such as
 hedgehog) have been made;
- No temporary standing water should be left on the site, which could be used by amphibians.

5.3 Enhancements

The recommendations below are designed to enhance the value of the site for wildlife, as encouraged through the National Planning Policy Framework (2021), and to help achieve meaningful biodiversity net gain in the context of both national and local biodiversity priorities and targets:

- 1) Plant locally sourced, native fruit and berry bearing species such as hazel, apple *Malus* spp., hawthorn, blackthorn *Prunus spinosa*, guelder rose *Viburnum opulus*, gorse *Ulex europaeus* and spindle *Euonymus europaeus* along the proposed north-eastern boundary tree line. Refer to **Appendix 4** for further suitable species.
- 2) Create and maintain an area of infrequently cut grassland beneath the proposed tree planting area to provide relatively undisturbed habitat for small mammals, invertebrates, birds and reptiles. The area should be a minimum of 1m wide and sown with a wildflower seed mix (e.g. Emorsgate EL1).
- 3) Plant a native hedgerow along the north-western and south-eastern boundaries to increase habitat connectivity around the site and where possible, include native species in any proposed landscaping. Refer to **Appendix 4** for suitable species.
- 4) Install four Schwegler 1B General Bird Boxes and / or Sparrow Terraces (or suitable long-lasting alternative) onto new buildings at least 3m above the ground, avoiding direct sunlight (not directly south-facing) and prevailing wind.
- 5) Install two Schwegler IFF and/or 2F Bat Boxes (or suitable long-lasting alternative) onto new buildings. Install the bat boxes at least 5m above the ground and face in a southerly or easterly direction, so that they receive sun for part of the day. Place boxes clear of any obstructions to allow access for bats (e.g. over-hanging branches).
- 6) Create a hibernaculum, by filling a hole (c. 2m by 1m in extent and up to 50cm deep) with rubble and wood from native hardwood species to provide reptile hibernation opportunities, as shown in **Appendix 3**. Locate this at the northern end of the north-eastern site boundary, in an area that will be minimally disturbed on completion. Dead wood habitats provide important egg laying and larval habitat for invertebrates and refugia and foraging for small mammals.
- 7) Incorporate Sustainable Drainage Systems (SuDS) within the development. SuDS can increase biodiversity by introducing a series of habitats for wildlife use and can be incorporated through designs such as rain gardens within hardstanding and parking bays (**Photo 5.1**).

Photo 5.1: Example of a rain garden within hardstanding (Integrity Land Works, 2014).



6 Conclusion

The Local Planning Authority should be consulted to confirm the need or otherwise for financial contributions to mitigate for potential impacts to nearby coastal SACs. Once this has been confirmed, the development can proceed with minimal impact to habitats and protected / notable species if a pre-clearance and mitigation measures outlined within **Section 5** are implemented.

There is also the opportunity to enhance the development for local wildlife in the long-term by implementing the enhancement measures.

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Appendix 1 Legislation & Planning Policy

Legislation

Conservation of Habitat and Species (Amendment) (EU Exit) Regulations (CHSR) 2019

The CHSR 2019 transpose Council Directive 92/43/EEC on the Conservation of Natural Habitats and Wild Flora and Fauna (Habitats Directive) into English law, making it an offence to deliberately capture, kill or disturb wild animals listed under Schedule 2 of the Regulations. It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time).

The purpose of the 2019 amendments applied to the legislation were to ensure the continued functionality of the Regulations once the UK has left the European Union, with no policy changes included.

Wildlife & Countryside Act (WCA)

The WCA 1981, as amended by the Countryside and Rights of Way Act (CRoW) 2000 and the Natural Environment and Rural Communities Act (NERC) 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions)
 and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while
 it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act; intentionally
 or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild
 animal listed under Schedule 5 to the Act; intentionally or recklessly disturb certain Schedule
 5 animal species while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act.

Sites of Special Scientific Interest (SSSI) are designated under this Act.

Special Protection Areas (SPA) are strictly protected sites, designated under the Birds Directive, for rare and vulnerable birds and for regularly occurring migratory species.

Natural Environment & Rural Communities (NERC) Act

The NERC Act 2006 amends the CRoW Act, by further extending the requirement to have regard for biodiversity to all public authorities, which includes local authorities and local planning authorities and requires that the Secretary of State consults Natural England (NE) in the publication of the list of living organisms and habitat types deemed to be of principal importance in conserving biodiversity.

Relevant Protected Species Legislation

Species	Relevant Legislation	Level of Protection	
Reptiles (adder, grass snake, common lizard & slow-worm)	Partially protected under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended).	 It is an offence to: intentionally kill or injure these animals. sell, offer for sale, advertise for sale, possess or transport for the purposes of selling any live or dead animals or part of these animals. 	
Birds	Protection under the Wildlife and Countryside Act, 1981 (as amended).	 It is an offence to: intentionally kill, injure or take any wild bird. intentionally take, damage or destroy nests in use or being built (including ground nesting birds). intentionally take, damage or destroy eggs. Species listed on Schedule 1 of the WCA or their dependant young are afforded additional protection from disturbance whilst they are at their nests. 	
Bats	European protected species under the Conservation of Habitats and Species (Amendment) (EU Exit) Regulations 2019. Full protection under Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended).	It is an offence to: It is an offence to: It is an offence to: Intentionally kill, injure, or take any species of bat. Intentionally or recklessly disturb bats.	
	Protected by the Wild Mammals (Protection) Act 1996.	 intentionally or recklessly damage destroy or obstruct access to bat roosts. 	
Wild Mammals	The Wild Mammals (Protection) Act 1996.	 This makes it an offence to: crush or asphyxiate any wild mammal with intent to inflict unnecessary suffering. This may apply during site clearance for development, particularly where burrowing animals such as foxes and rabbits are present, since such animals could be crushed or asphyxiated in their burrows by heavy machinery. 	

National Planning Policy

National Planning Policy Framework (NPPF)

The NPPF sets out current government policy on biodiversity and nature conservation and places a duty on planners to make material consideration to the effect of a development on legally protected species when considering planning application (MHCLG, 2021). The NPPF also promotes sustainable development by ensuring that developments take account of the role and value of biodiversity and that it is conserved and enhanced within a development, following the principles of the mitigation hierarchy. The goals set out within the NPPF are for developments to minimise impacts on and provide net gains for biodiversity, including at the catchment or landscape scale.

The NPFF works in conjunction with Government Circular 06/2005 'Biodiversity and Geological Conservation - Statutory Obligations and Their Impact within the Planning System.'

Regional and Local Planning Policy and Guidance

Local Structure Plans

County, District and Local Councils have Structure Plans and other policy documents that include targets and policies which aim to maintain and enhance biodiversity. These are used by Planning Authorities to inform planning decisions.

Biodiversity Action Plans

The UK Biodiversity Action Plan (UKBAP) was organised to fulfil the Rio Convention on Biological Diversity in 1992, to which the UK is a signatory. A 'UK Post-2010 Biodiversity Framework' was published in July 2012, and succeeded the UKBAP. Much of the work for the UK BAP is now focussed at a country level due to devolution and the creation of country-level biodiversity strategies.

The UKBAP lists of priority species and habitats are still valuable reference sources. Notably, they have been used to help draw up statutory lists of priority species and habitats as required under Section 41 of the NERC Act (2006).

UK Post-2010 Biodiversity Framework

The UK Post-2010 Biodiversity Framework (2012) was produced in response to a change in strategic thinking following the publication of the Convention of Biological Diversity's Strategic Plan for Biodiversity 2011–2020. The Strategic Plan consists of 20 new biodiversity targets for 2020, termed the 'Aichi biodiversity targets' and the launch of the new EU Biodiversity Strategy in May 2011.

The framework sets a structure for action across the UK between now and 2020, including a shared vision and priorities for UK-scale activities to help deliver the Aichi targets and the EU Biodiversity Strategy. A major commitment by Parties to the Convention of Biological Diversity is to produce a National Biodiversity Strategy and/or Action Plan (NBSAP).

Natural England Standing Advice

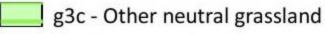
Natural England has adopted national standing advice for protected species. It provides a consistent level of basic advice which can be applied to any planning application that could affect protected species. It replaces some of the individual comments that Natural England has provided in the past to local authorities.

Appendix 2 Phase I Habitat Map



Legend

Application site boundary



h2a6 - Other native hedgerow

HH u1e - Built linear features

Target note

69 Fence

61 Horse grazed

75 Active management

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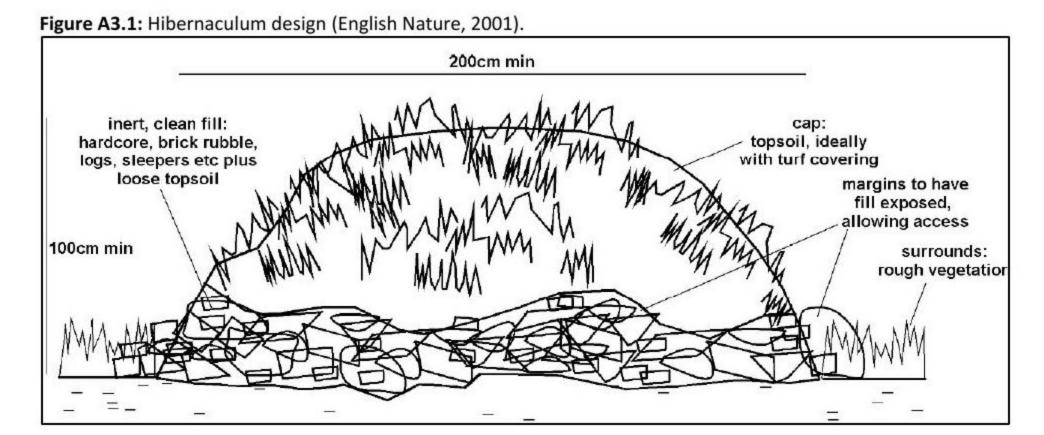
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Title:	UK Habitat Plan
Client:	Hobbs Parker
Date:	20/03/2022

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Appendix 3 Habitat Specifications



Appendix 4 Wildlife Friendly Planting

Table A4.1: Native and wildlife-friendly shrubs (Natural England, 2008).

Common Name	Scientific Name
Hazel	Corylus avellana
Elder	Sambucus nigra
Goat willow	Salix caprea
Hawthorn	Crataegus monogyna
Dog rose	Rosa canina
Guelder rose	Viburnum opulus
Gorse	Ulex europaeus
Broom	Cytisus scoparius
Wayfaring tree	Viburnum lantana
Shrubby cinquefoil	Potentilla fruticosa
Raspberry	Rubus idaeus
Alder buckthorn	Frangula alnus
Wild privet	Ligustrum vulgare
Barberry	Berberis × stenophylla
Barberry	Berberis vulgaris
Bell heather	Erica cinerea
Bilberry	Vaccinium myrtillus
Black currant	Ribes nigrum
Blackthorn	Prunus spinosa
Buckthorn	Rhamnus catharticus
Butcher's-broom	Ruscus aculeatus
Cowberry	Vaccinium vitis-idaea
Cross-leaved heath	Erica tetralix
New Zealand holly	Olearia macrodonta
Daphne	Daphne odora
Dogwood	Cornus sanguinea
Field rose	Rosa arvensis
Firethorn	Pyracanthus angustifolia
Flowering Currant	Ribes sanguineum
Gooseberry	Ribes uva-crispa
Hebe 'Midsummer Beauty'	Hebe sp.
Himalayan honeysuckle	Leycesteria formosa
Holly	Ilex aquifolium
Japanese quince	Chaenomeles japonica
Lilac	Syringa vulgaris
Mexican orange	Choisya ternata
Mezereon	Daphne mezereum
Midland hawthorn	Crataegus laevigata
Oregon grape	Mahonia aquifolium
Osier	Salix viminalis
Portugal laurel	Prunus lusitanica
Privet	Ligustrum ovalifolium
Purple willow	Salix purpurea

Common Name	Scientific Name
Snowy mespilus	Amelanchier canadensis, Amelanchier lamarckii
Spindle	Euonymus europaeus
Spurge laurel	Daphne laureola
Sweet briar	Rosa rubiginosa
Wild privet	Ligustrum vulgare

Table A4.2: Native and wildlife-friendly trees (Natural England, 2008).

Common Name	Scientific Name
Pedunculate oak	Quercus robur
Ash	Fraxinus excelsior
Wych elm	Ulmus glabra
Whitebeam	Sorbus aria agg.
Rowan	Sorbus aucuparia
Aspen	Populus tremula
Apple	Malus domestica
Bird cherry	Prunus padus
Common alder	Alnus glutinosa
Crab apple	Malus sylvestris
Crack willow	Salix fragilis
Downy birch	Betula pubescens
Field maple	Acer campestre
Hornbeam	Carpinus betulus
Juniper	Juniperus communis
Large-leaved lime	Tilia platyphyllos
Small-leaved lime	Tilia cordata
Pear	Pyrus communis
Scots pine	Pinus sylvestris
Sessile oak	Quercus petraea
Silver birch	Betula pendula
Sweet chestnut	Castanea sativa
Wild cherry	Prunus avium
Wild service-tree	Sorbus torminalis
Yew	Taxus baccata

Table A4.3: Moth pollinator species (Butterfly Conservation, 2019).

Common Name	Scientific Name
Honeysuckle	Lonicera periclymenum
Jasmine	Jasminum officinale
Evening primrose	Oenothera biennis
Sweet rocket	Hesperis matronalis
Night-scented stock	Matthiola bicornis
Aubretia	Aubretia sp.
Cuckooflower	Cardamine pratensis
Forget-me-not	Myosotis sp.
Honesty	Lunaria annua

Pansy	Viola sp.
Primrose	Primula veris
Wallflower	Erysimum sp.
French marigold	Tagetes sp.
Ice plant	Sedum sp.
Knapweed	Centaurea sp.
Lavender	Lavendula sp.
Marjoram	Origanum vulgare
Michaelmas daisy	Aster amellus
Mint	Mentha sp.
Scabious	Scabiosa sp.
Thyme	Thymus sp.