



Preliminary Ecological Appraisal

***Southernwood Rise, Folkstone,
Kent CT20 3NN***

Client Name: Chris Chandler

Project Number: P3123.1.1

Date: 13 November 2020

Client	Chris Chandler
Site	Southernwood Rise, Folkestone
Report reference	P3123.1.1
Prepared by	Charlotte Alanine BSc (Hons) and Zoe Phillips BSc (Hons) ACIEEM
Reviewed by	Sally Dalrymple-Smith MSc MCIEEM CEnv
Approved by	Richard Parmee BSc MSc Tech Cert (ArborA) MArborA
Date	13 November 2020
Version	Final

agb Environmental Ltd has prepared this document in accordance with the instructions of their client, Chris Chandler, for their sole and specific use and has been prepared based on a scope of works which has been agreed directly with the client.

agb Environmental Ltd Terms and Conditions apply.

© agb Environmental Ltd 2020
Newmarket Business Centre
341 Exning Road, Newmarket, CB8 0AT
Tel: 01638 663226
www.agbenvironmental.co.uk



agb Environmental Ltd

1 Summary

Site	Southernwood Rise, Folkestone
Central OS Grid Reference	TR2060835938
Report Commissioned by	Chris Chandler
Date of Survey	19 th October 2020

Considerations	Description	Comments & Recommendations
Proposed Development	It is proposed to build a house in the north east of the site, with associated soft landscaping to the north west of the site. No proposed development is expected to affect the rest of the site.	Ecological input is required in support of a planning application.
Surveys Undertaken	Desk based study and walkover survey.	Both components informed a Preliminary Ecological Appraisal
Ecological Features	The site comprised broadleaved deciduous woodland, scrub, grassland, bare ground and scattered trees.	The development footprint was considered to be of low ecological importance due to poor plant and structural diversity and isolated location, however some habitats on site have potential to support protected or notable species. No woodland or mature scattered trees are to be removed as part of the current scheme. Further surveys and mitigation measures to protect valued habitats and protected / notable species have been outlined below.
Further Assessments/ Surveys	Reptile surveys	It is recommended that a reptile survey is completed on suitable reptile habitat on site. This can be completed between April – June and September.
	[REDACTED]	[REDACTED]
Avoidance and General Mitigation	Foraging and commuting bats	Minimise artificial lighting and avoid lighting woodland and mature trees
	Scattered tree and broadleaved deciduous woodland	Ensure that there are no construction or operational impacts (direct or indirect) on this valuable ecological resource. Where necessary protect trees from construction activities with fencing according to BS5837:2012.

Considerations	Description	Comments & Recommendations
	Nesting birds	Clear any woody vegetation, including scrub, outside the nesting bird season, or after a nesting bird survey by an ecologist if clearance is scheduled between March and August (inclusive).
	Nocturnal mammals	Cover trenches or provide planked escape routes to allow any animals that fall in to escape. Store materials off the ground and do not leave temporary standing water.
Enhancements	To increase the ecological value of the site.	Install nest boxes / houses for wildlife, plant native species avoid the use of pesticides.
	Biodiversity Net Gain	Design an appropriate level of Biodiversity Net Gain into the project plan.

Contents

1	Summary.....	2
2	Introduction	6
2.1	Background	6
2.2	Site Location and Description	6
2.3	Development Proposal	6
2.4	Scope of the Assessment.....	6
2.5	Objective	6
3	Methodology.....	7
3.1	Surveyor.....	7
3.2	Desk Study	7
3.3	Habitat Survey.....	7
3.4	Protected and Notable Species Assessment	8
3.4.1	Amphibians	8
3.4.2	Reptiles	8
3.4.3	Nesting Birds.....	8
		
3.4.5	Bats.....	8
3.4.6	Hazel Dormouse	8
3.4.7	Other Species	9
3.4.8	Invasive Species	9
3.5	Nature Conservation Evaluation	9
3.5.1	Nature Conservation Evaluation	9
3.6	Limitations and Assumptions	9
4	Results and Evaluation.....	10
4.1	Designated Sites	10
4.1.1	Statutory Sites.....	10
4.1.2	Non-Statutory Sites	11
4.2	Habitats.....	11
4.2.1	Bare Ground	11
4.2.2	Amenity Grassland	12
4.2.3	Poor Semi-improved Grassland	12
4.2.4	Scrub	13
4.2.5	Scattered Trees.....	13
4.2.6	Broadleaved Deciduous Woodland	14
4.3	Protected and Notable Species	15
4.3.1	Invertebrates	15
4.3.2	Amphibians	16

4.3.4	Bats.....	16
4.3.5	Birds.....	17
4.3.6	Hazel Dormouse	18
4.3.7	Reptiles	18
4.3.8	Hedgehogs and Other BAP / Rare Species.....	18
4.3.9	Invasive Plants.....	18
5	Recommendations	19
5.1	Further Surveys / Assessments.....	19
5.1.1	Reptiles	19
5.2	General Mitigation	19
5.2.1	Scattered Trees and Woodland.....	19
5.2.2	Nesting Birds.....	19
5.2.3	Bats.....	20
5.2.4	Nocturnal Mammals	20
5.3	Enhancements and Biodiversity Net Gain	20
5.3.1	Biodiversity Net Gain.....	20
5.3.2	Enhancements	21
6	Conclusion	23
7	References.....	24

Appendix 1 Phase I Habitat Map

Appendix 2 Legislation and Planning Policy

Appendix 3 Characterising the Suitability of Habitats for Bats

Appendix 4 Bird Species Recorded Within 2km of the Site.

Appendix 5 Wildlife-Friendly Planting

2 Introduction

2.1 Background

agb Environmental was commissioned by Chris Chandler to undertake a Preliminary Ecological Appraisal at Southernwood Rise, Folkestone, Kent CT20 3NN, herein referred to as 'the site'.

This report has been produced to inform the client and the design team of the key ecological constraints and opportunities associated with the project, possible mitigation measures and to detail any further survey requirements considered necessary to inform an Ecological Impact Assessment (EclA).

2.2 Site Location and Description

The site was located in the west of Folkestone town centre, close to Coolinge and east of Sandgate at central Ordnance Survey Grid Reference: TR2060 835938. The site totalled approximately 0.2ha comprising broadleaved deciduous woodland, bare ground, amenity grassland, scrub, scattered trees, and poor semi-improved grassland (**Appendix 1**).

The site was situated within a suburban location and surrounded by housing, roads and private gardens. A public open space was located immediately south of the site's boundary. The wider area comprised urban settlement, school grounds, watercourses and pockets of deciduous woodland. A railway embankment was located 530m to the north and the English Channel 730m to the south.

2.3 Development Proposal

Chris Chandler proposes to construct a residential dwelling, located in the north east of the site with an associated parking area to the north of the house. The site is to be partially landscaped to create minimal impact on existing habitats. One mature tree is expected to be removed, alongside poor semi-improved grassland and scrub habitats. No proposed impacts are expected to woodland on site which is part of a woodland directly adjacent to the south of the site.

2.4 Scope of the Assessment

This report presents information obtained during the following:

- A desk-based assessment undertaken during October 2020; and
- A walkover survey undertaken on 19th October 2020.

2.5 Objective

The objectives of this PEA are to identify and report:

- Likely ecological constraints associated with the site and the project;
 - Mitigation measures that are likely to be required in line with the mitigation hierarchy;
 - Further ecological surveys are considered necessary to inform an EclA;
 - Measures considered necessary to provide compliance with planning policy, and European and UK wildlife legislation (**Appendix 2**); and
- Opportunities for the project to deliver ecological enhancement.

3 Methodology

3.1 Surveyor

The site was surveyed by Zoe Phillips BSc (Hons) ACIEEM, who is licensed to survey for bats (2020-48065-CLS-CLS, Level 1) and great crested newts (2016-26828-CLS-CLS, Level 1). Zoe is also an Associate member of the Chartered Institute of Ecology and Environmental Management (CIEEM) and subject to the CIEEM Professional Code of Conduct.

3.2 Desk Study

Natural England's Multi-Agency Geographic Information for the Countryside (MAGIC) database (Natural England, 2020) was accessed on the 23rd October 2020 for information regarding:

- Natura 2000 sites such as Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Ramsar sites within 5km of the site;
- Statutory sites designated for nature conservation within a 2km radius of the site such as Sites of Special Scientific Interest (SSSIs), National Nature Reserves (NNRs) and Local Nature Reserves (LNRs);
- Natural England's Impact Risk Zones (IRZs) for SSSIs, SACs, SPAs and Ramsar sites within which the site was located;
- Any European Protected Species Mitigation (EPSM) Licences granted by Natural England within a 2km radius of the site; and
- Positive great crested newt class survey licence returns within 2km of the site.

The Kent and Medway Biological Records Centre (KMBRC) was consulted on the 15th October 2020 for the following information for a 2km radius around the application site:

- Non-statutory nature conservation designations, such as Local Wildlife Sites (LWS), County Wildlife Sites (CWS);
- Existing records of legally protected species, such as great crested newts, reptiles, birds and bats; and
- Existing records of notable species, such as those listed in the local Biodiversity Action Plan (BAP).

3.3 Habitat Survey

A detailed walkover of the site, and land directly adjacent to the south of the site was undertaken on the 19th October 2020 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). This method of survey provides information on the habitats in the survey area and assesses the potential for notable or protected fauna to occur in or adjacent to the survey area. Features of interest were identified as target notes on the Habitat Map (**Appendix 1**).

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

Aerial images were used to assess the connectivity of any suitable habitat on the site to woodland and hedgerows within the wider area.

3.4.7 Other Species

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

3.4.8 Invasive Species

The site was searched for non-native invasive plants listed on Schedule 9 of the Wildlife and Countryside Act (HMSO, 1981) such as Japanese knotweed *Reynoutria japonica*.

3.5 Nature Conservation Evaluation

3.5.1 Nature Conservation 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 and Freshwater* (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;
- County;
- Local; and
- 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. 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 assessment 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 actions have been recommended where there is reasonable likelihood of a protected species being present and impacted by the proposal. This is based on the suitability of the habitat and any evidence observed.

This assessment does not constitute a full botanical survey or a Phase 2 pre-construction survey for invasive, non-native species.

Assuming conditions within the site and the development proposal remain unchanged, the assessment results are likely to remain valid for up to 18 months i.e. until April 2022 (BSI, 2013). If works have not commenced by this time the assessment may need updating.

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

Details of the two statutory sites designated for nature conservation within the vicinity of the site are provided in **Table 4.1**. SACs are of **European importance** and SSSIs are of **national importance**.

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

Site Name	Distance & Direction from Site	Area (ha)	Reasons for Designation
Folkestone to Etchinghill Escarpment SAC	1.9km N	187.02	Dry grasslands and scrublands on chalk or limestone, including important orchid sites. These are grasslands on thin dry soils on chalk or limestone that are usually very rich in plant species, particularly herbs and grasses. Important orchid sites include areas which host a strong population of at least one orchid species which is nationally rare or scarce in the UK.
Folkestone to Etchinghill Escarpment	1.8km NE	263.25	The site is one of the largest remaining areas of unimproved chalk downland in Kent. Three nationally rare plants listed on Sch.8 of the WCA and specially protected by law, are present; late spider orchid <i>Ophrys fuciflora</i> , early spider orchid <i>Ophrys sphegodes</i> and bedstraw broomrape <i>Orobancha caryophyllacea</i> . It has an outstanding lichen flora and a diverse breeding bird community. The site also supports an outstanding assemblage of insects including many local and rare species such as annulet moth <i>Gnophos oscuratus</i> , adonis blue <i>Lysandra bellargus</i> and small blue <i>Cupido minimus</i> .

The site falls within the Folkestone to Etchinghill Escarpment SAC/SSSI 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 specific mitigation is required for this designated site.

There were no habitats or species within the site that serve as qualifying features of the nearby statutory sites. The application site was not linked to these sites due to the intervening land being urban development and open farmland (Natural England, 2020).

Due to the small-scale size, location and nature of application site, the proposed development is highly unlikely to have a significant effect on any European site (either alone or in combination with other plans or projects). Further, it is not directly connected with or necessary to the management of such sites.

No further assessment is recommended for statutory conservation sites.

4.1.2 Non-Statutory Sites

Details of the one non-statutory site designated for nature conservation that was located within 2km of the application site is provided in **Table 4.2**. LWSs are of **local importance**.

Table 4.2: Non-statutory site within 2km of the application site.

Site Name	Distance & Direction from Site	Area (ha)	Reasons for Designation
Paraker Wood and Seabrook Stream LWS	1.9km W	c. 0.35	This site comprises ancient woodland and is of ornithological interest including for red listed nightingales <i>Luscinia megarhynchos</i> .

It is considered that the development will be small enough and located sufficiently far enough from this site for there to be any direct or indirect impacts on its habitats.

Further, there does not appear to be any direct public path, hydrological link or other habitat connectivity between the site and the application site (Natural England, 2020).

Therefore, no significant impacts to the non-statutory site is expected and therefore it will not be considered any further within the assessment.

4.2 Habitats

The habitats below were recorded within the site during the survey. Habitat types are described below and shown on the Habitat Map (**Appendix 1**).

- Bare ground
- Amenity grassland
- Poor semi-improved grassland
- Scrub
- Scattered trees
- Broadleaved deciduous woodland

4.2.1 Bare Ground

A small area of bare ground was located along the northern boundary of the site (**Photo 4.1**). This habitat is considered to be of **negligible** ecological importance and is therefore not considered further within this report.



Photo 4.1: Bare ground in the north of the site.

4.2.2 Amenity Grassland

A small area of amenity grassland was located in the north of the site, adjacent to a residential building, adjacent to the site (**Photo 4.1**). This was dominated by annual meadow grass *Poa annua* with other species occasionally present including cock's-foot *Dactylus glomerata*, cleavers *gallium aparine*, dandelion *Taraxacum officinal*, smooth sow thistle *Sonchus oleraceus*. This habitat lacked species and structural diversity and as such is considered to be of **negligible** ecological importance.

No further action is recommended and amenity grassland is not considered any further within this assessment.

4.2.3 Poor Semi-improved Grassland

A small area of poor semi-improved grassland was present along the east boundary of the site (**Photo 4.2**). This habitat was dominated by cock's-foot, with abundant cow parsley *Anthriscus sylvestris* and occasionally occurring common mallow *Malva neglecta*, nettle *Urtica dioica*, and smooth sow thistle. The grassland is widespread within the local landscape and is of poor species diversity, and as such is considered to be of **negligible** importance. The poor semi-improved grassland does provide some structural diversity and suitable habitat for protected species, which will be discussed in further in **Section 4.3**.



Photo 4.2: Poor semi-improved grassland in east of the site.

4.2.4 Scrub

The site was dominated by scrub habitat, which was dominated by bramble *Rubus fruticosus* agg (**Photo 4.3**). Other species present within this habitat were sycamore *Acer pseudoplatanus* saplings, nettle, hedge bindweed *Calystegia sepium*, willowherb *Epilbium* sp., and cow parsley. The scrub is widespread within the local landscape and is of poor species diversity, and as such is considered to of **negligible** importance. However, it does provide some structural diversity and provides suitable habitat for some protected species, which will be discussed in further detail in **Section 4.3**.

A large area of scrub in the north will be removed as part of the proposed development and further recommendations for mitigation for protected species has been made in **Section 5**.



Photo 4.3: Bramble dominated scrub within the north-west of the site.

4.2.5 Scattered Trees

A small number of mature trees were located close to the site boundary in the north of the site (**Photo 4.4**). Species included sycamore *Acer pseudoplatanus*, hawthorn *Crataegus monogyna*, copper beech *Fagus sylvatica* f. *purpurea*, rowan *Sorbus aucuparia*, silver birch *Betula pendula* and Leylandii *Cupressus* × *leylandii*. Scattered trees were considered important at a **local** level. A small number of immature saplings and one mature sycamore tree will be removed as part of the proposed development. Where relevant to protected or notable species, this is discussed in **Section 4.3**.

Precautionary measures to protect any trees that may be affected by construction works are recommended in **Section 5**.



Photo 4.4: Scattered trees along the north-east boundary of the site.

4.2.6 Broadleaved Deciduous Woodland

To the south of the site, and adjoining directly south of the site, is an area of broadleaved deciduous woodland (**Photo 4.5**). The woodland canopy layer was dominated by sycamore, with occasional other species including, cherry *Prunus sp.*, hazel *Corylus avellana*, holly *Ilex aquifolium*, hawthorn, elder *Sambucus nigra* and field maple *Acer campestre*.

The ground flora was dominated by ivy *Hedera helix*, with other species including ground ivy *Glechoma hederacea*, cocksfoot, cow parsley, nettle, red dead nettle *Lamium purpureum*, red campion *Silene dioica*, dandelion, hogweed *Heracleum sphondylium*, herb Robert *Geranium robertianum*, rosebay willowherb *Chamerion angustifolium*, lord's-and-ladies *Arum maculatum*, bramble, hart's-tongue fern *Asplenium scolopendrium* and gladdon iris *Iris foetidissima*. Variegated yellow archangel *Lamium galeobdolon ssp. argentatum* (**Photo 4.6**, and **Target Note 1, Appendix 1**) was also present within this habitat, likely to have naturalised from surrounding residential gardens.

Broadleaved deciduous woodland habitat was common and widespread within the local area. It is a BAP priority habitat and has potential to support protected species, as such the woodland on site and directly adjoining the south of the site, is considered to be of **local** importance.

Precautionary measures to protect this habitat, and any protected species it may support are recommended in **Section 5**.

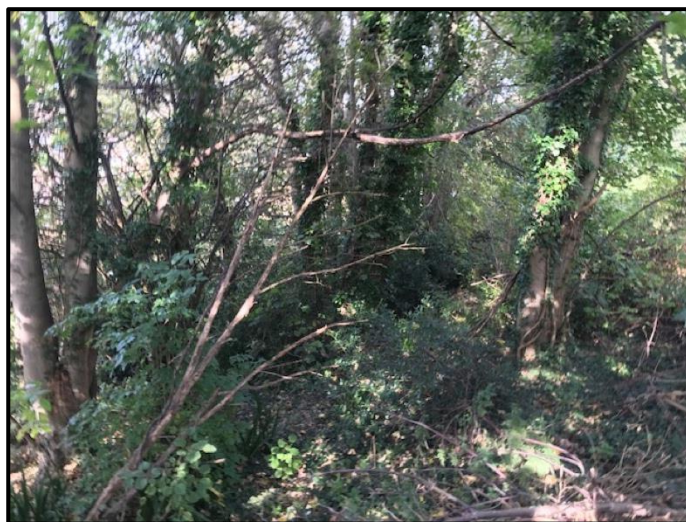


Photo 4.5: Woodland in the south of the site.



Photo 4.6: Variegated yellow archangel to the south of the woodland.

4.3 Protected and Notable Species

Records of protected / notable species for the last ten years have been considered within the assessment below. Older records have been considered where appropriate. None of the records pertain to the site, and MAGIC returned one records of granted EPSM licences and no records of positive great crested newt class survey licence returns from within 2km.

4.3.1 Invertebrates

The KMBRC returned eight records of invertebrates listed on *Schedule 5* of the *WCA* including mole cricket *Gryllotalpa Gryllotalpa*, white-letter hairstreak *Satyrion w-album*, adonis blue *Polyommatus bellargus* and Sussex emerald *Thalera fimbrialis*. There were also over 400 records of notable (Section 41 NERC Act 2006) butterfly and moth, some of which included wall *Lasiommata megera*, small heath *Coenonympha pamphilus*, latticed heath *Chiasma clathrata* and buff ermine *Spilosoma lutea* most of which originated from Seabrook approximately 2km west of the site and last recorded from 2018.

There was no rotting or buried deadwood within the development footprint which could support the saproxylic larvae of the stag beetle. Further, habitats to be significantly impacted by the proposals (bare ground, amenity grassland and scrub) were unlikely to support other rare or

notable invertebrate species. The development footprint was therefore considered to hold **negligible** potential for rare / notable invertebrates. Therefore, invertebrates are not considered any further within this assessment and no further survey or mitigation is recommended.

4.3.2 Amphibians

The KMBRC returned one recent record of common toad approximately 1.8km west of the site from 2011 and ten older records of great crested newt, all of which were over 20 years old.

There were no waterbodies within the site however one waterbody was visible within 250m of the site boundary (Natural England, 2020). This was associated with a waterfall further downstream suggesting flowing water and is therefore considered unsuitable for supporting great crested newt. It was considered unlikely that significant populations of amphibians were present locally due to an absence of breeding ponds. As such, the site was considered to hold **negligible** potential to support great crested newts and impacts to other amphibians are not expected.

No further surveys or mitigation is required and amphibians will therefore not be included any further within this assessment.

4.3.4 Bats

The KMBRC returned four recent bat records comprising two species which are summarised in **Table 4.3**.

Table 4.3: Bat records within 2km of the site.

Bat Species	Protection	Nearest and Most Recent Records
Soprano pipistrelle <i>Pipistrellus pygmaeus</i>	CHSR ¹ ; WCA ² SPIE ³	Three records, the nearest 1.1km NW, the latest 2011.
Daubenton's bat <i>Myotis daubentonii</i>	CHSR, WCA	One record, over 1km S (2011).

Table 4.4 provides a list of bat EPSM Licences granted by Natural England within 2km of the site (Natural England, 2020).

¹ Conservation of Habitats and Species Regulations 2017.

² Wildlife and Countryside Act 1981 (as amended).

³ Species of Principal Importance in England of Section 41 of the Natural Environmental and Rural Communities Act (NERC), 2006.

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

Case Reference	Bat Species	Type of Roost	Distance & Direction	Licence Start & End Dates
2016-19507-EPS-MIT	Brown long-eared Common pipistrelle	Day roost	1.1km NW	26/01/2016 – 31/01/2021

4.3.4.1 Roosting (Trees)

A number of mature trees, immature trees and saplings were present within the site. No PRFs were visible within any of the trees on site, including the tree along the north east boundary of the site that is to be removed as part of the proposed development. As such, trees within the site were considered to have **negligible** suitability for roosting bats.

It was noted that some trees within the woodland adjacent to the south of the site contained PRFs, such as sycamores covered in dense ivy (**Target Note 2, Appendix 1**). There is potential for bats to be roosting within close proximity to the site; however, no direct impacts are anticipated on these trees.

No further recommendations for roosting bats is discussed within this report.

4.3.4.2 Foraging and Commuting

Mature trees within the adjacent woodland were identified with PRFs and therefore, should bats be roosting within these trees, there is potential for them to utilise the site for foraging and commuting.

The site was dominated by scrub, woodland and grassland. These habitats, alongside occasional mature trees located at the perimeters of the site, held low suitability as they may support small numbers of foraging bats or may be way-markers for commuting bats. It is proposed that the woodland and majority of trees are to be retained and no impacts are anticipated during the works, with only approximately half of the scrub to be removed.

With street lights also present along the road directly to the east of the site, it was considered likely that the site would be used by light tolerant species for foraging and commuting, and activity surveys would be unlikely to yield additional or valuable information in relation to mitigation.

The site held **low value** for foraging or commuting bats and precautionary measures are recommended in **Section 5**.

4.3.5 Birds

The KMBRC returned numerous records of birds listed as Annex I (Birds Directive), Schedule 1 (WCA) and / or of Conservation Concern (BoCC4) (see **Appendix 4**).

The following species were incidentally noted during the survey: wren *Troglodytes troglodytes*, robin *Erithacus rubecula*, blue tit *Cyanistes caeruleus*, blackbird *Turdus merula*, carrion crow *Corvus corone* and pigeon *Columba palumbus*.

Bird interest (nesting / foraging) is likely to be confined to the trees, scrub and woodland. The site was therefore considered to hold **high value** for widespread species of nesting bird. The site overall was, however, considered to hold **negligible value** for significant bird species and assemblages.

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

4.3.6 Hazel Dormouse

The KMBRC did not return any records for dormice within the 2km search area. The site was, however, located within the dormouse natural range and contained suitable food plants such as hazel and bramble. Due to the poor habitat structure, low species diversity and isolated nature of the site (according to aerial images), the site was considered to hold **low potential** for dormice. Given the small size of the site and relatively small impact to dense scrub habitat predicted, it was not considered necessary to undertake further surveys for dormice.

No further action for hazel dormouse is recommended.

4.3.7 Reptiles

The KMBRC returned 29 recent records of reptiles and comprised common lizard *Zootoca vivipara* (2014), slow-worm *Anguis fragilis* (2017) and adder *Vipera berus* (2010) with the nearest record located immediately south of the site.

The scrub-grassland interface, and poor semi-improved grassland on site provide suitable habitat to support low numbers of common reptiles such as slow worm. As the proposed development involves the removal of the majority of the suitable reptile habitat, with the footprint of the proposed building located over the poor semi-improved grassland, further surveys for reptiles have been recommended in **Section 5**.

4.3.8 Hedgehogs and Other BAP / Rare Species

The KMBRC returned one recent record of hedgehog *Erinaceus europaeus* approximately 1.2km (2017) north west of the site. Some areas of habitat had **high** potential for hedgehogs, including areas of scrub and woodland. Grassland on site also offered potential foraging habitat. Precautionary avoidance measures are recommended in **Section 5**.

No watercourses are present within or close to the site and therefore an assessment was not considered necessary for other protected, rare or notable species such as white-clawed crayfish, otter, water vole.

No further actions are recommended with respect to other protected, rare or notable species.

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 has therefore been recommended for the site.

However, it should be noted that variegated yellow archangel (**Target Note 1, Appendix 1**) was noted within the woodland, south of the site. This species is listed under Schedule 9 of the WCA 1981 (as amended), and as such it is an offence to plant or allow to spread in the wild. It is a legally controlled invasive weed species and as such, the *Environmental Protection Act 1990* lists material containing the species as 'controlled waste' to be disposed of in accordance with the *Environmental Protection 'Duty of Care' Regulations 1991*.

The proposed development does not have any anticipated impacts on this area of woodland and therefore no mitigation is necessary for this species.

5 Recommendations

This section discusses recommendations for further surveys, general mitigation, and possible enhancements in line with relevant wildlife legislation and planning policy (see **Appendix 2**).

5.1 Further Surveys / Assessments

5.1.1 Reptiles

A reptile presence / likely absence survey of the suitable habitat (grassland and hedgerow / scrub interfaces) is recommended in line with current guidance (Froglife, 1999). This involves placing artificial refugia in suitable habitat and checking them, and other suitable habitat features, for reptiles on seven occasions between mid-March and the end of September in suitable weather conditions.

If reptiles are found to be using parts of the site, further survey visits may be required to estimate the population size and inform the design of mitigation and avoidance measures. Mitigation would be likely to involve incorporating reptile habitat within the development or translocating reptiles to a suitable off-site receptor area, usually requiring habitat enhancement measures to be incorporated prior to translocation commencing.

[REDACTED]

5.2 General Mitigation

5.2.1 Scattered Trees and Woodland

The current layout of the proposed development does not impact on any mature trees or woodland habitat. Should the design change at all and impacts be anticipated (including any tree works or pruning), an ecologist should be consulted to ensure there are no additional constraints.

During construction, the working area should be delineated, and the retained woodland and trees close to the proposed works should be protected. Root Protection Areas should be fenced with Heras fencing to prevent contractor encroachment, in line with Trees in Relation to Design, Demolition and Construction – Recommendations BS5837:2012 (BSI, 2012).

5.2.2 Nesting Birds

Woody vegetation should be cleared between September and February (inclusive) to avoid the breeding bird season. Alternatively, an ecologist should check potential nesting habitat immediately before clearance if it is scheduled during the breeding season (March to August inclusive). Any active nests identified will be retained in situ with a suitable buffer until the ecologist has confirmed that the chicks have fledged and the nest is no longer active.

5.2.3 Bats

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

- Avoid illuminating roosts, swarming sites and corridors used by light averse species for commuting and foraging;
- Direct any task lighting used during construction away from trees and woodland (retained and new);
- Set any necessary security lighting on short timers (e.g. 1 minute) with a sensitivity to large moving objects only;
- Directional lighting or shielding such as hoods or cowls should be used to avoid light being directed at the sky or towards the boundary vegetation;
- Limit lighting times to provide dark periods;
- LED luminaires are preferred due to the lower intensity, sharp 'cut-off', colour rendition and dimming capability;
- All luminaires should lack UV elements and metal halide fluorescent sources should not be used. Avoid white and blue wavelengths of the light spectrum and keep the brightness of the lamps as low as feasibly possible; and
- Carefully consider the height of columns to avoid light spill.

Post-completion lighting surveys may be required to confirm that the as proposed lighting levels, luminaire heights, design and shielding have been achieved.

5.2.4 Nocturnal Mammals

The following measures should be used to avoid / reduce potential impacts to nocturnal mammals which may commute across the site:

- 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 and badger) have been made;
- Store materials off the ground on pallets to prevent animals (particularly hedgehogs) from taking refuge under them. No temporary standing water should be left on the site, which animals could fall into; and
- Temporarily fence any piles of material that are to be in place for a significant period of time, to prevent animals burrowing into the soil.

5.3 Enhancements and Biodiversity Net Gain

5.3.1 Biodiversity Net Gain

The National Planning Policy Framework (NPPF) require development proposals to demonstrate post development gains in biodiversity as measured using an approved metric. The Folkestone and Hythe Local Plan also supports planning applications which achieve a net gain over and above residual loss (Folkestone and Hythe District Council, 2020).

Under the NPPF, planners have a duty to protect and enhance biodiversity. The framework requires plans to promote the conservation, restoration and enhancement of priority habitats,

ecological networks and the protection and recovery of priority species. Plans will identify and pursue opportunities for securing **measurable net gains for biodiversity** (MHC&LG, 2019).

It is recommended that the baseline conditions and the predicted post-development biodiversity scenario are measured to inform the plan and design with respect to biodiversity net gain.

Changes to local and national policy are soon to be expected and it is recommended that the local authority is consulted for clarity over what it expects in terms of percentage net gain in biodiversity units. Folkestone and Hythe District Council may request different approaches to satisfy Biodiversity Net Gain (BNG) dependent upon the scale and nature of any development proposal.

Approaches include comprehensive net gain calculations using biodiversity metrics and / or the provision of a Biodiversity Enhancement Scheme (BES) which incorporates features such as those recommended below.

Net gain is an iterative design process, and it is suggested that the design is assessed in terms of opportunities for meaningful habitat retention, enhancement and creation. The following are suggested as potential means of balancing the project's biodiversity impact:

- Balance the built environment with the amount of habitat retained, enhanced or created;
- Incorporate habitats that are of national or local priority or which are subject to local conservation objectives;
- Create public open space that will benefit the local community and wildlife; and
- Link habitats e.g. green corridors, to provide connectivity and habitat permeability.

5.3.2 Enhancements

The recommendations below are designed to enhance the value of the site for wildlife, as encouraged through the NPPF, and to help achieve local BAP targets (see **Appendix 2**):

- 1) Install one Schwegler 1B General Purpose Bird Boxes onto retained suitably mature trees. Choose boxes with a variety of nest-hole sizes to attract a variety of species (e.g. 26mm, 32mm and 55mm oval). Fit the boxes at least 3m above the ground, avoiding direct sunlight (not directly south-facing) and prevailing wind;
- 2) Install two Schwegler 1SP Sparrow Terraces. These can be surface mounted or integrated within the new building and would provide valuable nesting sites for the declining red listed house sparrow. Fit the terraces in small groups at least 3m above the ground, avoiding direct sunlight (not directly south-facing) and prevailing wind;
- 3) Install one Schwegler IFF and / or 2F Bat Boxes onto retained suitably mature trees / new buildings to enhance roosting opportunities within the site for bats. Typically bat boxes are installed at least 5m above the ground and facing in a southerly direction to receive sun for part of the day. Locations close to artificial lighting are to be avoided, ideally boxes will be located adjacent to commuting or foraging habitat such as lines of trees or hedgerows. Clear access for bats to the boxes should be maintained over the longer term which may involve light intervention (e.g. the pruning

of over-hanging branches or ivy). Always consult with an experienced bat ecologist regarding the installation and positioning of bat boxes;

- 4) Incorporate native species within the planting schedules of any new soft landscaping. A list of suitable, wildlife friendly, fruit and nectar bearing species is provided below (**Appendix 5**);
- 5) Provide one insect houses in sheltered, warm locations e.g. within any new or existing planted beds to provide over-wintering sites for beneficial insects such as lady birds and lacewings, which typically prey on pest species;
- 6) Provide a hedgehog house within a sheltered location e.g. at the base of shrub beds, preferably a distance away from car parks or roads; and
- 7) Avoid use of pesticides and use environmentally safe wood preservatives (for sheds and fences etc.).

6 Conclusion

The development can proceed with minimal impact to habitats and protected / notable species assuming the 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.

7 References

Andrews, H. L., 2018. *Bat Roosts in Trees: A guide to identification and assessment for tree-care and ecology professionals*. Exeter: Pelagic Publishing.

Bright, P., Morris, P. & Mitchell-Jones, A., 2006. *The Dormouse Conservation Handbook*. 2nd ed. Peterborough: English Nature.

BSI, 2012. *BS 5837:2012 Trees in relation to design, demolition and construction - Recommendations*. United Kingdom ed. United Kingdom: British Standards Institution.

BSI, 2013. *BS 42020:2013 Biodiversity - Code of practice for planning and development*, United Kingdom: British Standards Institution.

Chanin, P., 2003. Monitoring the otter. In: *Conserving Natura 2000, River Monitoring Series No. 10*. Peterborough: English Nature.

CIEEM, 2017. *Guidlines for Preliminary Ecological Appraisal*. 2nd ed. Winchester: Chartered Institute of Ecology and Environmental Management.

CIEEM, 2018. *Guidlines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater and Coastal*. 3rd ed. Winchester: Chartered Institute of Ecology and Environmental Management.

Collins, J., 2016. *Bat Surveys for Professional Ecologists: Best Practice Guidelines*. 3rd ed. London: The Bat Conservation Trust.

Dean, M., Strachan, R., Gow, D. & Andrews, R., 2016. In: F. M. a. P. Chanin, ed. *The Water Vole Mitigation Handbook (Mammal Society Mitigation Guidance Series)*. London: Mammal Society.

ECDC, 2015. *East Cambridgeshire Local Plan, Adopted April 2015*, Ely: East Cambridgeshire District Council.

ECDC, 2020. *East Cambridgeshire District Council Natural Environment - Supplementary Planning Document (SPD), Consultation Draft February 2020*, Ely: East Cambridgeshire District Council.

Folkestone and Hythe District Council, 2020. *Folkestone and Hythe District Council*. [Online] Available at: [https://folkestone-hythe.gov.uk/media/2218/Folkestone-Hythe-Core-Strategy-Review-Submission-Draft-2020-EB-01-00-/pdf/Folkestone_Hythe_Core_Strategy_Review_Submission_Draft_2020_\(EB_01.00\).pdf?m=637200457103070000](https://folkestone-hythe.gov.uk/media/2218/Folkestone-Hythe-Core-Strategy-Review-Submission-Draft-2020-EB-01-00-/pdf/Folkestone_Hythe_Core_Strategy_Review_Submission_Draft_2020_(EB_01.00).pdf?m=637200457103070000) [Accessed 06 November 2020].

Folkestone and Hythe District Council, 2020. *Folkestone and Hythe District Council Planning Applications*. [Online] Available at: <https://folkestonehythedc.force.com/pr/s/pr-search-results?search=eyJrZXI3b3JkcyI6InNvdXRoZXJud29vZCByaXNliwiY2F0ZWdvcnkiOiJQOXBwbGljYXRpb24sUGxhbm5pbmdPYmxpZ2F0aW9ucyxBcHBiYWxBbGwsRW5mb3JjZW1lbnROb3RpY2UsVFBPLEJ1aWxkaW5nQ29udHJvbiIsInR5cGUOiJzb3Nslwid> [Accessed 06 November 2020].

Froglife, 1999. *Froglife Advice Sheet 10 Reptile Survey: An Introduction to Planning, Conducting and Interpreting Surveys for Snake and Lizard Conservation*. Peterborough: Froglife .

Gent, A. & Gibson, S., 2003. *Herpetofauna Workers' Manual*. Peterborough: Joint Nature Conservation Committee.

Harris, S., Cresswell, P. & Jeffries, D., 1989. Surveying Badgers. In: *An occasional publication of the mammal society - No. 9*. London: Mammal Society .

HMSO, 1981. *The Wildlife and Countryside Act*, London: Her Majesty's Stationery Office.

HMSO, 1992. *Protection of Badgers Act*, London: Her Majesty's Stationery Office.

HMSO, 1996. *Wild Mammals (Protection) Act*, London: Her Majesty's Stationery Office.

HMSO, 1997. *The Hedgerow Regulations*, London: Her Majesty's Stationery Office.

HMSO, 2000. *The Countryside and Rights of Way (CROW) Act*, London: Her Majesty's Stationery Office.

HMSO, 2005. *Biodiversity and geological conservation: circular 06/2005*, London: Department for Communities and Local Government.

HMSO, 2006. *Natural Environment and Rural Communities Act (NERC Act)*, London: Her Majesty's Stationery Office.

HMSO, 2009. *The Conservation of Wild Birds - Directive 2009/147/EC of the European Parliament and of the Council*, London: Her Majesty's Stationery Office.

HMSO, 2017. *The Conservation of Habitats and Species Regulations*, London: Her Majesty's Stationery Office.

ILP, 2018. *Bats and Artificial Lighting in the UK, bats and the built environment series - Guidance Note 08 / 18*, London: The Bat Conservation Trust / Institute of Lighting Professionals.

Langton, T., Beckett, C. & Foster, J., 2001. *Great Crested Newt Conservation Handbook*. Halesworth: Froglife.

MHC&LG, 2019. *National Planning Policy Framework*, London: Her Majesty's Stationery Office.

Mitchell-Jones, A. J. & McLeish, A. P., 2004. *Bat Workers' Manual, 3rd Edition*. Peterborough: Joint Nature Conservation Committee.

Natural England, 2008. *Gardening With Wildlife in Mind*. London: Natural England.

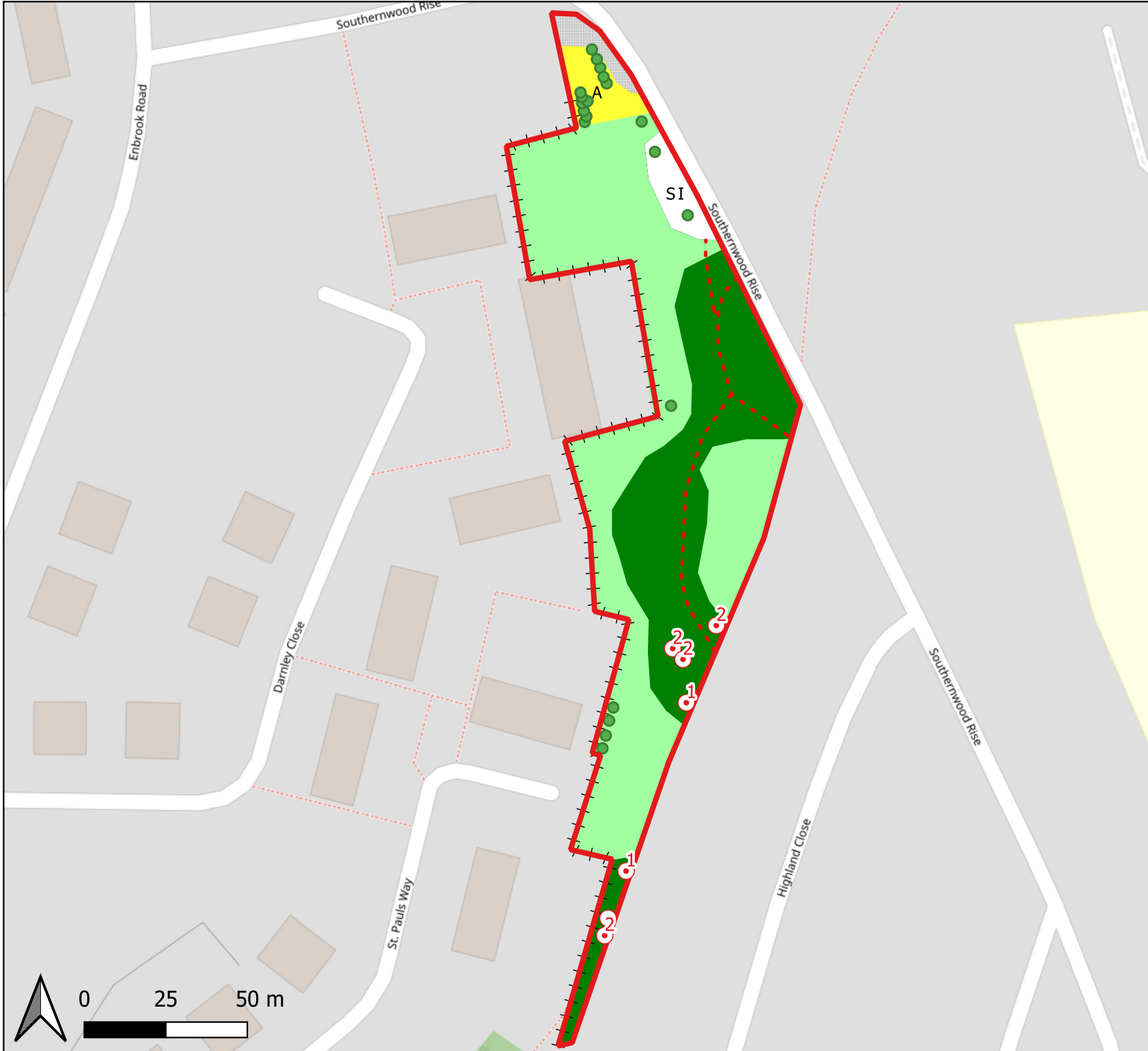
Natural England, 2015. *Template for Method Statement to support application for licence under Regulation 53(2)e of The Conservation of Habitats and Species Regulations 2010 (as amended) in respect of great crested newts Triturus cristatus. Form WML-A14-2*, online: Natural England.

Natural England, 2020. *MAGIC Map Application*. [Online]
Available at: <http://www.natureonthemap.naturalengland.org.uk/MagicMap.aspx>

The Barn Owl Trust, 2010. *Survey techniques: Leaflet no. 8*. Ashburton, Devon: The Barn Owl Trust.

UKHab, 2018. *The UK Habitat Classification User Manual. Version 1.0*, London: The UK Habitat Classification Working Group 2014-2018.

Appendix 1 Phase I Habitat Map



Legend

Red Line Boundary

Target Notes

Bare ground

Broadleaved woodland

A

Amenity grassland

SI

Poor semi-improved grass

Scrub - dense/continuous

Scattered Trees

Mammal Track

Fence

Project Name: Southernwood Rise, Folkestone

Project Number: P3123.4.1

Tile: Phase 1 Habitat Map

Client: Chris Chandler

Date: 21/10/2020

agb

ENVIRONMENTAL

agbEnvironmental Ltd
Newmarket Business Centre,
341 ExningRoad,
Newmarket. CB8 0AT
Tel: 01638 663 226
Email: Info@agbenvironmental.co.uk
Web: www.agbenvironmental.co.uk

Appendix 2 Legislation & Planning Policy

Legislation

Conservation of Habitat and Species Regulations (as amended)

The *CHSR 2017* 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).

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
Birds	Protection under the <i>Wildlife and Countryside Act, 1981 (as amended)</i> .	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.
[REDACTED]	[REDACTED]	[REDACTED] [REDACTED] [REDACTED] [REDACTED] [REDACTED]
Bats	European protected species under the <i>Conservation of Habitats and Species Regulations 2017</i> . Full protection under <i>Schedule 5 of the Wildlife and Countryside Act, 1981 (as amended)</i> . Protected by the <i>Wild Mammals (Protection) Act 1996</i> .	It is an offence to: - intentionally kill, injure, or take any species of bat. - intentionally or recklessly disturb bats. - intentionally or recklessly damage destroy or obstruct access to bat roosts.
Wild Mammals	The <i>Wild Mammals (Protection) Act 1996</i> .	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 applications (MHC&LG, 2019). 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.

The NPPF 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.

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 3 Characterising the Suitability of Habitats for Bats

Table A3.1: Classifying the bat roosting suitability of buildings (Collins, 2016).

Negligible roosting suitability	Negligible habitat features within the site likely to be used by roosting bats.
Low roosting suitability	A structure with one or more features that could be opportunistically used by individual bats. Unlikely to support maternity or hibernation roosts.
Moderate roosting suitability	A structure with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat (unlikely to support roosts of high conservation status).
High roosting suitability	A structure 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.
Confirmed roost	Evidence of bat occupation found.

Table A3.2: Classifying the bat roosting suitability of trees (Collins, 2016).

Negligible roosting suitability	Trees with few, if any, features suitable for roosting.
Low roosting suitability	A tree of sufficient size and age to contain PRFs but with none seen from the ground or features seen with only very limited roosting potential.
Moderate roosting suitability	A tree with one or more potential roost sites that could be used by bats due to their size, shelter, protection, conditions and surrounding habitat. These trees are unlikely to support a roost of high conservation status.
High roosting suitability	A tree with one or more potential roost sites that are obviously suitable for use by larger numbers of bats on a regular basis and potentially for longer periods of time due to their size, shelter, protection, conditions and surrounding habitat.

Table A3.3: 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 un-vegetated 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.
Moderate	Continuous habitat connected to the wider landscape that bats may use for commuting such as tree-lines and scrub or linked back gardens.
	Habitat that connects to the wider landscape that bats may use for foraging such as trees, scrub 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 commuting bats such as broadleaved woodland, tree-lined watercourses and grazed parkland. Site is close to and connected to known roosts.

Appendix 4 Bird Species Recorded Within 2km of the Site

Table A4. Records of protected and notable bird species within 2km of the site.

Common Name	Scientific Name	Designation(s)	Date of Most Recent Record
Arctic Skua	<i>Stercorarius parasiticus</i>	BRed ⁴	2019
Arctic Tern	<i>Sterna paradisaea</i>	BD1 ⁵	2019
Avocet	<i>Recurvirostra avosetta</i>	BD1, WCA1 ⁶	2019
Bar-tailed Godwit	<i>Limosa lapponica</i>	BD1	2019
Bee-eater	<i>Merops apiaster</i>	WCA1	2015
Bewick's Swan	<i>Cygnus columbianus</i>	BD1, WCA1	2019
Black Kite	<i>Milvus migrans</i>	BD1	2019
Black Redstart	<i>Phoenicurus ochruros</i>	BRed, WCA1	2019
Black Tern	<i>Chlidonias niger</i>	BD1, WCA1	2019
Black-necked Grebe	<i>Podiceps nigricollis</i>	WCA1	2019
Black-tailed Godwit	<i>Limosa limosa</i>	BRed, WCA1	2017
Brambling	<i>Fringilla montifringilla</i>	WCA1	2018
Cetti's Warbler	<i>Cettia cetti</i>	WCA1	2019
Common Crossbill	<i>Loxia curvirostra</i>	WCA1	2018
Common Scoter	<i>Melanitta nigra</i>	BRed, WCA1	2019
Common Tern	<i>Sterna hirundo</i>	BD1	2019
Common/Arctic Tern	<i>Sterna spp.</i>	BD1	2019
Corn Bunting	<i>Miliaria calandra</i>	BRed	2010
Crane	<i>Grus grus</i>	BD1	2019
Cuckoo	<i>Cuculus canorus</i>	BRed	2019
Curlew	<i>Numenius arquata</i>	BRed	2019
Diver species	<i>Gavia spp.</i>	BD1; WCA1	2016
Dunlin	<i>Calidris alpina</i>	BD1	2019
Fieldfare	<i>Turdus pilaris</i>	BRed, WCA1	2019
Firecrest	<i>Regulus ignicapillus</i>	WCA1	2019
Goldeneye	<i>Bucephala clangula</i>	WCA1	2018
Goshawk	<i>Accipiter gentilis</i>	WCA1	2018
Great Northern Diver	<i>Gavia immer</i>	BD1; WCA1	2019
Great White Egret	<i>Egretta alba</i>	BD1	2017
Green Sandpiper	<i>Tringa ochropus</i>	WCA1	2017
Greenshank	<i>Tringa nebularia</i>	WCA1	2019
Grey Wagtail	<i>Motacilla cinerea</i>	BRed	2019
Hawfinch	<i>Coccothraustes coccothraustes</i>	BRed	2018

⁴ Birds of Conservation Concern 4 (BoCC4): Red Listed

⁵ Birds Directive: Annex 1

⁶ Wildlife & Countryside Act (1981): Schedule 1i

Common Name	Scientific Name	Designation(s)	Date of Most Recent Record
Herring Gull	<i>Larus argentatus</i>	BRed	2019
Hobby	<i>Falco subbuteo</i>	WCA1	2019
Honey Buzzard	<i>Pernis apivorus</i>	BD1, WCA1	2018
Hoopoe	<i>Upapa epops</i>	WCA1	2018
House Sparrow	<i>Passer domesticus</i>	BRed	2019
Kingfisher	<i>Alcedo atthis</i>	BD1, WCA1	2016
Kittiwake	<i>Rissa tridactyla</i>	BRed	2019
Lapwing	<i>Vanellus vanellus</i>	BRed	2018
Lesser Redpoll	<i>Carduelis cabaret</i>	BRed	2018
Linnet	<i>Carduelis cannabina</i>	BRed	2019
Little Egret	<i>Egretta garzetta</i>	BD1	2019
Little Gull	<i>Larus minutus</i>	BD1, WCA1	2019
Little Tern	<i>Sterna albifrons</i>	BD1, WCA1	2019
Long-tailed Duck	<i>Clangula hyemalis</i>	BRed, WCA1	2019
Marsh Harrier	<i>Circus aeruginosus</i>	BD1, WCA1	2018
Marsh Tit	<i>Parus palustris</i>	BRed	2019
Mediterranean Gull	<i>Larus melanocephalus</i>	BD1, WCA1	2019
Merlin	<i>Falco columbarius</i>	BRed, WCA1, BD1	2018
Mistle Thrush	<i>Turdus viscivorus</i>	BRed	2015
Montagu's Harrier	<i>Circus pygargus</i>	BD1, WCA1	2013
Nightingale	<i>Luscinia megarhynchos</i>	BRed	2017
Nightjar	<i>Caprimulgus europaeus</i>	BD1	2014
Osprey	<i>Pandion haliaetus</i>	BD1, WCA1	2019
Peregrine	<i>Falco peregrinus</i>	BD1, WCA1	2019
Pied Flycatcher	<i>Ficedula hypoleuca</i>	BRed	
Pintail	<i>Anas acuta</i>	WCA1	2018
Pochard	<i>Aythya ferina</i>	BRed	2016
Purple Sandpiper	<i>Calidris maritima</i>	WCA1	2019
Red Kite	<i>Milvus milvus</i>	BD1, WCA1	2018
Red-necked Grebe	<i>Podiceps grisegena</i>	BRed	2017
Red-throated Diver	<i>Gavia stellata</i>	BD1; WCA1	2019
Redwing	<i>Turdus iliacus</i>	BRed, WCA1	2019
Ring Ouzel	<i>Turdus torquatus</i>	BRed	2019
Ringed Plover	<i>Charadrius hiaticula</i>	BRed	2019
Ruff	<i>Philomachus pugnax</i>	BD1, WCA1	2014
Sandwich Tern	<i>Sterna sandvicensis</i>	BD1	2019
Scaup	<i>Aythya marila</i>	BRed, WCA1	2010
Serin	<i>Serinus serinus</i>	WCA1	2012
Shag	<i>Phalacrocorax aristotelis</i>	BRed	2019
Short-eared Owl	<i>Asio flammeus</i>	BD1	2017
Skylark	<i>Alauda arvensis</i>	BRed	2019

Common Name	Scientific Name	Designation(s)	Date of Most Recent Record
Slavonian Grebe	<i>Podiceps auritus</i>	BD1; WCA1; BRed	2018
Snow Bunting	<i>Plectrophenax nivalis</i>	WCA1	2012
Song Thrush	<i>Turdus philomelos</i>	BRed	2019
Spoonbill	<i>Platalea leucorodia</i>	BD1, WCA1	2017
Spotted Flycatcher	<i>Muscicapa striata</i>	BRed	2018
Starling	<i>Sturnus vulgaris</i>	BRed	2019
Tree Sparrow	<i>Passer montanus</i>	BRed	2016
Twite	<i>Carduelis flavirostris</i>	BRed	2017
Velvet Scoter	<i>Melanitta fusca</i>	BRed, WCA1	2019
Whimbrel	<i>Numenius phaeopus</i>	BRed, WCA1	2019
Whinchat	<i>Saxicola rubetra</i>	BRed	2016
White-fronted Goose	<i>Anser albifrons</i>	BRed	2014
Wood Warbler	<i>Phylloscopus sibilatrix</i>	BRed	2017
Woodcock	<i>Scolopax rusticola</i>	BRed	2018
Woodlark	<i>Lullula arborea</i>	BD1, WCA1	2018
Wryneck	<i>Jynx torquilla</i>	WCA1	2017
Yellow Wagtail	<i>Motacilla flava</i>	BRed	2018
Yellowhammer	<i>Emberiza citrinella</i>	BRed	2017

Appendix 5 Wildlife-Friendly Planting

Table A5.1: Native and wildlife-friendly shrubs (Natural England, 2008).

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

Common Name	Scientific Name
Wild privet	<i>Ligustrum vulgare</i>

Table A5.2: Native and wildlife-friendly trees (Natural England, 2008).

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