

Land at Lydden, Dover

Ecological Appraisal

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Executive Summary

- i) **Introduction.** Aspect Ecology was commissioned by Quinn Estates to undertake an Ecological Appraisal in respect of proposed development at Lydden, Kent.
- ii) **Proposals.** The proposals are for development of the site to provide 23 residential dwellings, associated access and landscaping.
- iii) **Survey.** The site was originally surveyed in September 2018 based on standard extended Phase 1 methodology. In addition, a general appraisal of faunal species was undertaken to record the potential presence of any protected, rare or notable species, with specific surveys conducted in respect of bats, [REDACTED] Great Crested Newt and reptiles. An update Phase 1 habitat survey has subsequently been undertaken in July 2023.
- iv) **Ecological Designations.** The site itself is not subject to any statutory or non-statutory ecological designations. The nearest statutory designation is Alkham, Lydden and Swingfield Woods Site of Special Scientific Interest (SSSI) located approximately 40m to the south of the site. The next nearest statutory designation is Lydden and Temple Ewell Downs SSSI, also subject to designation as a Special Area of Conservation (SAC), located approximately 180m to the north of the site. The nearest non-statutory designation is Temple Ewell and Lydden Downland Local Wildlife Site (LWS) located approximately 450m to the north east of the site. All of the ecological designations in the surrounding area are physically well separated from the site and subject to water efficiency measures in line with local policy, are unlikely to be adversely affected by the proposals.
- v) **Habitats.** The site is formed by a single moderate sized grassland field, along with a smaller field at the south west, bordered by hedgerows, tree lines and a wooded strip. Features of ecological importance at the site comprise the hedgerows and trees which are considered to be of importance at the local level, and are largely retained under the proposals, and will be protected during construction. The remaining habitats within the site are not considered to form important ecological features.
- vi) **Protected Species.** The site generally offers limited opportunities for protected species however low numbers of Slow-worms were recorded within the site during the survey work. Additionally, it is likely that birds nest within suitable habitat at the site and could therefore potentially be adversely affected by the proposals. Long-term nesting opportunities will be maintained, if not enhanced, under the proposals through new landscape planting and provision of nest boxes. Appropriate mitigation measures, centred on the careful timing of works, will be implemented to safeguard protected species during relevant site clearance works.
- vii) **Enhancements.** The proposals present the opportunity to secure a number of biodiversity benefits, including additional native tree planting, new roosting opportunities for bats, log piles for reptiles and more diverse nesting habitats for birds.
- viii) **Summary.** In summary, the proposals have sought to minimise impacts on biodiversity and subject to the implementation of appropriate avoidance, mitigation and compensation measures, it is considered unlikely that the proposals will result in significant harm.

1 Introduction

1.1 Background and Proposals

- 1.1.1 Aspect Ecology was commissioned by Quinn Estates to undertake an Ecological Appraisal in respect of proposed development of land at Lydden, Dover, centred at grid reference TR 26292 45514 (see Plan 5495/ECO1).
- 1.1.2 The proposals are for redevelopment of the site to provide a new residential development of 23 residential dwellings , along with access and landscaping.

1.2 Site Overview

- 1.2.1 The site is located in Lydden, east Kent, within an urban-edge context. The site is located north of Canterbury Road and east of Church Lane and is bounded by residential development and farm buildings to the south east, south and west, whilst pasture fields lie to the north and east.
- 1.2.2 The site itself is dominated by a grassland field, with other habitats including boundary treelines and hedgerows, along with a small amount of tall ruderal vegetation and scrub.

1.3 Purpose of the Report

- 1.3.1 This report documents the methods and findings of the baseline ecology surveys and desktop study carried out in order to establish the existing ecological interest of the site, and subsequently provides an appraisal of the likely ecological effects of the proposals. The importance of the habitats and species present is evaluated. Where necessary, avoidance, mitigation and compensation measures are proposed so as to safeguard any significant existing ecological interest within the site and where appropriate, opportunities for ecological enhancement are identified with reference to national conservation priorities and local Biodiversity Action Plans (BAPs).

2 Methodology

2.1 Desktop Study

- 2.1.1 In order to compile background information on the site and its immediate surroundings, a number of recording organisations and online data sources were consulted.
- 2.1.2 To gather information on nearby ecological designations and known sites for protected and notable species, Kent and Medway Biological Records Centre (KMBRC) was contacted during September 2018, with data requested on a 2km search radius. KMBRC also provided records held by Kent Bat Group (KBG) and Kent Ornithological Society (KOS). The information received from these organisations is discussed in the text and reproduced, where appropriate, on Plan 5495/ECO2.
- 2.1.3 Information on statutory designations was obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC) database, which utilises data provided by Natural England, with an extended search radius (15km). In addition, the MAGIC database was searched to identify the known presence of any Priority Habitats within or adjacent the site. Relevant information is reproduced at Appendix 5495/1 and on Plan 5495/ECO2, where appropriate.
- 2.1.4 In addition, the Woodland Trust database was searched for any records of ancient, veteran or notable trees within or adjacent to the site.

2.2 Habitat Survey

- 2.2.1 The site was surveyed in September 2018 in order to ascertain the general ecological value of the land contained within the boundaries of the site and to identify the main habitats and ecological features present. An update survey was subsequently undertaken during July 2023.
- 2.2.2 The site was surveyed based on standard Phase 1 Habitat Survey methodology¹, whereby the habitat types present are identified and mapped, together with an assessment of the species composition of each habitat. This technique provides an inventory of the basic habitat types present and allows identification of areas of greater potential which require further survey. Any such areas identified can then be examined in more detail through Phase 2 surveys. This method was extended, in line with the Guidelines for Preliminary Ecological Appraisal² to record details on the actual or potential presence of any notable or protected species or habitats.
- 2.2.3 Using the above method, the site was classified into areas of similar botanical community types, with a representative species list compiled for each habitat identified. The nomenclature used for plant species is based on the Botanical Society for the British Isles (BSBI) Checklist.

2.3 Faunal Surveys

- 2.3.1 General faunal activity, such as mammals or birds observed visually or by call during the course of the surveys was recorded. Specific attention was also paid to the potential presence of any protected, rare or notable species, and specific consideration was given to

¹ Joint Nature Conservation Committee (2010, as amended) 'Handbook for Phase 1 habitat survey: A technique for environmental audit.'

² Chartered Institute for Ecology and Environmental Management (CIEEM) (2013) 'Guidelines for Preliminary Ecological Appraisal.'

bats, [REDACTED], Great Crested Newt *Triturus cristatus* and reptiles, as described below.

Bats³

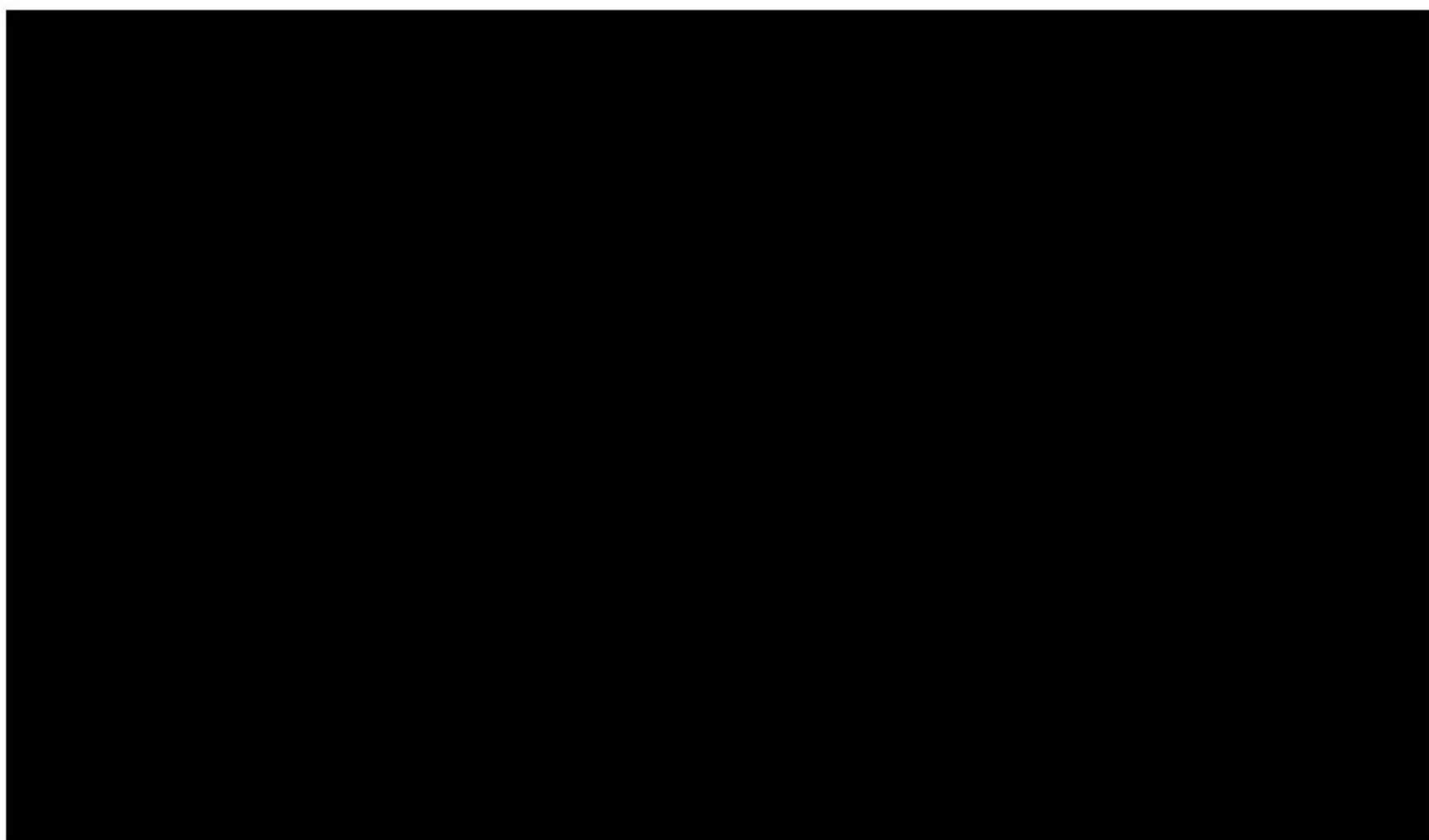
Visual Inspection Surveys

2.3.2 **Trees.** Trees were assessed for their suitability to support roosting bats based on the presence of features such as holes, cracks, splits or loose bark. Suitability for roosting bats was rated based on relevant guidance⁴ as:

- Negligible;
- Low;
- Moderate; or
- High.

2.3.3 Any potential roost features identified were also inspected for any signs indicating possible use by bats, e.g. staining, scratch marks, bat droppings, etc.

2.3.4



2.3.5



Great Crested Newt

2.3.6 Based on a review of OS mapping, two ponds were identified within 500m of the site, located to the south west (labelled as P1 on Plan 5495/ECO5), and to the north (labelled as P2 on Plan 5495/ECO5). The pond to the north (P2) was visited in spring 2019 and was recorded to be dry, whilst the pond to the south west (P1) was subject to further survey, as

³ Surveys based on: English Nature (2004) 'Bat Mitigation Guidelines' and Collins, J. (ed.) (2016) 'Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).' Bat Conservation Trust

⁴ Collins, J. (ed.) (2016) 'Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).' Bat Conservation Trust

⁵ Based on: Mammal Society (1989) 'Occasional Publication No. 9 – [REDACTED]'

detailed below. Both ponds were subject to an update visit during April 2022 where pond P2 was again record to be dry whilst water at pond P1 was inaccessible due to health and safety concerns regarding thick and sinking mud.

Environmental DNA (eDNA)

- 2.3.7 An eDNA survey was carried out to determine the presence/absence of Great Crested Newt within P1. Water samples were collected on the 28/06/2019 following the procedure outlined in the methods manual prepared for DEFRA by Biggs *et al.* (2014)⁶. The survey fell within the acceptable seasonal window set out by Natural England (15th April to 30th June)⁷. Samples were collected by suitably licensed Aspect Ecology staff. The water samples were sent for laboratory analysis which was conducted by 'Fera' and also followed the procedure set out by Biggs *et al.* (2014). Update eDNA was attempted during 2022 however the ponds were either dry or inaccessible as described above.

Reptiles⁸

- 2.3.8 Given the presence of potentially suitable reptile habitat within the site, a specific survey was undertaken to establish the presence/absence of common reptile species in September and October 2018. This survey work was updated during 2022.
- 2.3.9 A total of 40 50x50cm sheets of thick roofing felt were placed within suitable areas across the site to act as artificial refugia, which represents a density of approximately 22 per hectare (see Plan 5495/ECO4). The refugia, or 'tins', provide shelter and heat up more quickly than their surroundings in the morning and can remain warmer than their surroundings in the late afternoon. Being ectothermic (cold blooded), reptiles use them to bask under and raise their body temperature, which allows them to forage earlier and later in the day. Therefore, checking the refugia at appropriate times of the day (morning and evening) enables the presence/absence of common reptiles to be determined.
- 2.3.10 The refugia remained undisturbed for approximately 1-2 weeks to allow reptiles to find and start using them. Following this initial bedding-in period, refugia were checked at appropriate times of the day on seven occasions during suitable weather conditions, as set out below in Table 2.1 and Table 2.2.

Table 2.1. Reptile survey dates and weather conditions 2018.

Survey Date	Weather Conditions			
	Wind (BF)	Temp(°)	Cloud Cover (%)	Precipitation
02/10/2018	BF3	17	100	Dry
04/10/2018	BF2	18	40	Dry
08/10/2018	BF1	13	20	Dry
10/10/2018	BF1	16	0	Dry
12/10/2018	BF2	17	20	Dry
15/10/2018	BF3	18	100	Dry
17/10/2018	BF1	15	20	Dry

BF0 = calm, BF12 = hurricane force

⁶ Biggs J., Ewald N., Valentini A., Gaboriaud C., Griffiths R.A., Foster J., Wilkinson J., Arnett A., Williams P. and Dunn F. (2014). 'Analytical and methodological development for improved surveillance of the Great Crested Newt. Appendix 5. Technical advice note for field and laboratory sampling of great crested newt (*Triturus cristatus*) environmental DNA'. Freshwater Habitats Trust, Oxford.

⁷ Natural England (2015) 'Great crested newts: surveys and mitigation for development projects. Standing advice for local planning authorities who need to assess the impacts of development on great crested newts'. Last updated at www.gov.uk on 24/12/2015.

⁸ Surveys based on: Froglife Advice Sheet 10 (1999) 'Reptile Survey - an introduction to planning, conducting and interpreting surveys for snake and lizard conservation.'

Table 2.2. Reptile survey dates and weather conditions 2022.

Survey Date	Weather Conditions			
	Wind (BF)	Temp(°C)	Cloud Cover (%)	Precipitation
18/05/2022	BF1	16	5	Dry
23/05/2022	BF2	13	100	Light rain
31/05/2022	BF3	12	100	Dry
09/06/2022	BF1	16	0	Dry
15/06/2022	BF1	18	0	Dry
23/06/2022	BF2	16	95	Dry
01/07/2022	BF2	16	10	Dry

- 2.3.11 In addition, reptiles basking in the open or partial cover were actively searched for in suitable locations across the site through direct observation. Existing natural objects (e.g. logs and rocks) and artificial refugia (e.g. debris, tyres, etc.) were also searched, where present, for reptiles or evidence of reptiles (e.g. sloughed skin).

2.4 Survey Constraints and Limitations

- 2.4.1 All of the species that occur in each habitat would not necessarily be detectable during survey work carried out at any given time of the year, since different species are apparent during different seasons. The Phase 1 habitat survey was undertaken within the optimal season therefore allowing a robust assessment of habitats and botanical interest across the site.
- 2.4.2 Attention was paid to the presence of any invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). However, the detectability of such species varies due to a number of factors, e.g. time of year, site management, etc., and hence the absence of invasive species should not be assumed even if no such species were detected during the Phase 1 survey.

2.5 Principles of Ecological Evaluation

- 2.5.1 The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Environmental Management (CIEEM, 2018)⁹, which involves identifying 'important ecological features' within a defined geographical context (i.e. international, national, regional, county, district, local or site importance). For full details refer to Appendix 5495/2.

2.6 National Policy Approach to Biodiversity in the Planning System

- 2.6.1 The National Planning Policy Framework (NPPF)¹⁰ describes the Government's national policies on 'conserving and enhancing the natural environment' (Chapter 15). NPPF is accompanied by Planning Practice Guidance on 'Biodiversity, ecosystems and green infrastructure' and ODPM Circular 06/2005¹¹.

⁹ CIEEM (2018) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine', Chartered Institute of Ecology and Environmental Management, Winchester

¹⁰ Ministry of Housing, Communities & Local Government (2019) 'National Planning Policy Framework'

¹¹ ODPM (2006) 'Circular 06/2005: Planning for Biodiversity and Geological Conservation – A Guide to Good Practice'

- 2.6.2 NPPF takes forward the Government's strategic objective to halt overall biodiversity loss¹², as set out at Paragraph 170, which states that planning policies and decisions should contribute to and enhance the natural and local environment by:

'minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures'

- 2.6.3 The approach to dealing with biodiversity in the context of planning applications is set out at Paragraph 175:

'When determining planning applications, local planning authorities should apply the following principles:

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

- 2.6.4 The above approach encapsulates the 'mitigation hierarchy' described in British Standard BS 42020:2013¹³, which involves the following step-wise process:

- **Avoidance** – avoiding adverse effects through good design;
- **Mitigation** – where it is unavoidable, mitigation measures should be employed to minimise adverse effects;
- **Compensation** – where residual effects remain after mitigation it may be necessary to provide compensation to offset any harm; and
- **Enhancement** – planning decisions often present the opportunity to deliver benefits for biodiversity, which can also be explored alongside the above measures to resolve potential adverse effects.

¹² DEFRA (2011) 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services'

¹³ British Standards Institution (2013) 'Biodiversity – Code of practice for planning and development', BS 42020:2013

- 2.6.5 The measures for avoidance, mitigation, compensation and enhancement should be proportionate to the predicted degree of risk to biodiversity and to the nature and scale of the proposed development (BS 42020:2013, section 5.5).

3 Ecological Designations

3.1 Statutory Designations

Description

- 3.1.1 The statutory designations of ecological importance that occur within the local area are shown on Plan 5495/ECO2. The nearest statutory designation is Alkham, Lydden and Swingfield Woods SSSI located approximately 40m to the south of the site. Alkham, Lydden and Swingfield Woods SSSI comprises several woodlands situated on the steep slopes of dry chalk valleys, supporting a diverse range of plant species.
- 3.1.2 The next nearest statutory designation to the site is Lydden and Temple Ewell Downs Site of Special Scientific Interest (SSSI), located approximately 180m to the north of the site. The SSSI is designated on the basis of supporting chalk grassland, supporting an associated assemblages of plants and invertebrates. This SSSI is also subject to designation as a Special Area of Conservation (SAC), is designated on the basis of supporting the Annex I habitat Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia).

Evaluation

- 3.1.3 The site itself is not subject to any statutory ecological designations. Appendix 5495/3 assesses international designations in the surrounds of the site in relation to the proposals, assessing potential pathways of impact, along with proposed mitigation measures. In summary, subject to implementation of appropriate water efficiency measures, it is considered that no international designations will be detrimentally affected by the proposals at the site.
- 3.1.4 All other statutory ecological designations in the surrounding area are separated from the site by existing development, and given the nature and scale of the proposals, these designations are unlikely to be affected. Notably, Alkham, Lydden and Swingfield Woods SSSI is separated by Canterbury Road and existing residential properties, and therefore would not be directly affected by the proposals. In any event, measures are proposed to ensure such offsite habitats are safeguarded, as set out under Section 6 below.

3.2 Non-statutory Designations

Description

- 3.2.1 The non-statutory designations of nature conservation interest that occur within the local area are shown on Plan 5495/ECO2. The nearest non-statutory designation is Temple Ewell and Lydden Downland Local Wildlife Site (LWS) located approximately 450m to the north east of the site. In addition, Comp Lydden Hill Roadside Nature Reserve (RNR) is located approximately 300m west of the site.

Evaluation

- 3.2.2 The site itself is not subject to any non-statutory nature conservation designations. All non-statutory designations in the surrounding area are well separated from the site by existing development and given the nature and scale of the proposals, these designations are unlikely to be affected.

3.3 Priority Habitats, Ancient Woodland and Notable Trees

- 3.3.1 There are no records of any notable or veteran trees, areas of ancient woodland, or priority habitat within or adjacent to the site. The nearest area of ancient woodland is located approximately 700m west of the site. Accordingly, it is unlikely that any areas of ancient woodland, Priority Habitats or any notable or veteran trees will be affected by the proposals.

3.4 Summary

- 3.4.1 In summary, the site itself is not subject to any statutory or non-statutory ecological designations and, subject to the implementation of appropriate mitigation measures (as described above), it is unlikely that any such designations in the surrounding area will be significantly affected by the proposals.

4 Habitats and Ecological Features

4.1 Background Records

- 4.1.1 No specific records of any protected, rare or notable plant and fungi species from within or immediately adjacent to the site are included within the information returned from the Records Centre. A number of records of Priority Species were returned from KMBRC including Olive Earthtongue *Microglossum olivaceum*, Chalk Threadwort *Cephaloziella baumgartneri*, Curly Beardless-moss *Weissia condensata*, White Helleborine *Cephalanthera damasonium*, Man Orchid *Orchis anthropophora*, Burnt Orchid *Neotinea stultata*, Fly Orchid *Ophrys insectifera*, Basil Thyme *Clinopodium acinos*, Eyebright *Euphrasia pseudokerneri* and Slender Bedstraw *Galium pumilum*. However, none of which were recorded within or adjacent to the site. No evidence for the presence of any of these species within the site was recorded during the survey work undertaken.

4.2 Overview

- 4.2.1 The habitats and ecological features present within the site are described below and evaluated in terms of whether they constitute an important ecological feature and their level of importance, taking into account the status of habitat types and the presence of rare plant communities or individual plant species of elevated interest. The likely effects of the proposals on the habitats and ecological features are then assessed. The value of habitats for the fauna they may support is considered separately in Chapter 5 below.
- 4.2.2 The following habitats/ecological features were identified within/adjacent to the site:
- Semi-improved Grassland;
 - Tall Ruderal Vegetation and Scrub;
 - Hedgerows/Treelines/Wooded Strip; and
 - Trees;
- 4.2.3 The locations of these habitat types and features are illustrated on Plan 5495/ECO3 and described in detail below.

4.3 Priority Habitats

- 4.3.1 Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places duties on public bodies to have regard to the conservation of biodiversity in the exercise of their normal functions. In particular, Section 41 of the NERC Act requires the Secretary of State to publish a list of habitats which are of principal importance for conservation in England. This list is largely derived from the 'Priority Habitats' listed under the former UK Biodiversity Action Plan (BAP), which continue to be regarded as priority habitats under the subsequent country-level biodiversity strategies.
- 4.3.2 Of the habitats within the site, the native hedgerows are considered to form a priority habitat and therefore constitute an important ecological feature. This is discussed further in the relevant habitat sections below.

4.4 Semi-improved Grassland

Description

- 4.4.1 The site is dominated by a single field, with a smaller field at the south west, both of which comprise species-poor semi-improved grassland (see Plan 5495/ECO3).
- 4.4.2 During the original survey in 2018, the grassland was recorded to comprise a uniformly short sward of approximately 20cm, however during the update survey in 2023 the grassland had been recently mown and was recorded at 3-5cm high with very occasional tufts of taller sward. The habitat was recorded to be grass dominated with infrequent herbs present, with an average of 5.7 species per m² recorded during the 2023 survey. The grass species present within the field include Meadow Grass *Poa sp.*, Yorkshire-fog *Holcus lanatus*, Cocks-foot *Dactylis glomerata*, Common Bent *Agrostis capillaris*, Perennial Rye-grass *Lolium perenne*, Red Fescue *Festuca rubra* and herbs including Common Sorrel *Rumex acetosa*, Ribwort Plantain *Plantago lanceolata*, Dandelion *Taraxacum officinale agg.*, Creeping Buttercup *Ranunculus repens*, White Clover *Trifolium repens*, Common Bird's-foot-trefoil *Lotus corniculatus*, Common Mouse-ear *Cerastium fontanum*, Common Ragwort *Senecio jacobaea*, Creeping Thistle *Cirsium arvense*, Spear Thistle *Cirsium vulgare*, Yarrow *Achillea millefolium* and Smooth Hawk's-beard *Crepis capillaris*.

Evaluation

- 4.4.3 Overall, the grassland supports a low diversity of common and widespread species and based on the type and abundance of species present it can be classified as species-poor semi-improved (modified) grassland¹⁴. Semi-improved grassland is not uncommon in the local area and higher quality areas of grassland are present in the surroundings of the site. As such, the grassland is not considered to constitute an important ecological feature and its loss to the proposals is of minor ecological significance.

4.5 Tall Ruderal Vegetation and Scrub

Description

- 4.5.1 Areas of scattered scrub and tall ruderal vegetation were recorded to be colonising the site, largely restricted to the site boundaries (see Plan 5495/ECO3). Ruderal species were dominated by Common Nettle *Urtica dioica*, with Ground Ivy *Glechoma hederacea*, Ragwort *Senecio jacobaea*, Spear Thistle and Woody Nightshade *Solanum dulcamara*. Scrub species include Bramble *Rubus fruticosus agg.*, Elder *Sambucus nigra*, Willow *Salix sp.*, and Sycamore *Acer pseudoplatanus*.

Evaluation

- 4.5.2 The scrub and tall ruderal vegetation at the site comprises common and widespread species, and are limited to the margins. As such the scrub and tall ruderal vegetation is not considered to form an important ecological feature.

¹⁴ Natural England (2010) 'Higher Level Stewardship – Farm Environment Plan (FEP) Manual', 3rd Edition

4.6 Hedgerows/Treelines/Wooded Strip

Description

- 4.6.1 Five hedgerows, three treelines and one wooded strip are present within the site located at the site boundaries (labelled as H1-H5, TL1-TL3 and W1 on Plan 5495/ECO3). These features are described in more detail in Table 4.1 below.

Table 4.1. Hedgerow, treeline and wooded strip descriptions.

No.	H	W	Woody species	Ground flora & climbers	Associated features & comments	Likely to qualify [#]
H1	2m	1m	Beech, Willow, Hawthorn, Privet	Ivy, Meadow Grass, Stinging Nettle, Creeping Cinquefoil, Creeping Buttercup	Bushy and overgrown at roadside, well-managed to east. Variable height/width. Relatively gappy.	N
H2	1m	3m	Elm, Bramble	Ivy, Meadow Grass, Stinging Nettle, Creeping Cinquefoil, Cr. Buttercup	Largely well-managed, but bushy in places. Forms residential curtilage.	N
H3	4-5m	1-2m	Elder, Hawthorn, Willow	Stinging Nettle, Thistle, Bindweed, Creeping Buttercup, Ivy, Woody Nightshade, Hogweed	A number of semi-mature trees. Gappy, barbed wire fence on field-side.	N
H4	4-5m	1-2m	Elder, Hawthorn, Willow	Stinging Nettle, Thistle, Bindweed, Clematis, Creeping Buttercup, Hogweed	Relatively gappy, barbed wire fence on field-side	N
H5	4-5m	1m	Blackthorn, Elder, Ash	Stinging Nettle, Thistle, Bindweed, Clematis, Creeping Buttercup	Relatively gappy. Coppiced Ash at east of H5.	N
TL1	6-8m	8m	Sycamore, Ash, Willow	Ivy, Nettle-leaved Bellflower	Hedgerow with pollarded trees.	N
TL2	8m	2-3m	Sycamore, Hawthorn	Stinging Nettle	Pollarded Sycamore. Forms a residential curtilage.	N
TL3	5-10m	1-2m	Ornamental Cyprus	Meadow Grass	Young planting. Forms a residential curtilage. TL3a 5m high, TL3b 10m high	N
W1	10-15m	8m	Semi-mature Sycamore, occasional Ash, Field Maple, Elder	Ivy	Wooded bank.	n/a

Evaluation

- 4.6.2 The hedgerows recorded within the site have numerous gaps, whilst H3 and H5 contain a number of standard trees.

- 4.6.3 The majority of hedgerows (and treelines) within the site are likely to qualify as a Priority Habitat based on the standard definition¹⁵, which includes all hedgerows (>20m long and <5m wide) consisting predominantly (≥80%) of at least one native woody species, albeit several form residential curtilages. It has been estimated that approximately 84% of countryside hedgerows in GB qualify as a Priority Habitat under this definition.¹⁵
- 4.6.4 On this basis, the network of hedgerows and treelines within the site is considered to constitute an important ecological feature, although given the relatively limited network present, are only of importance at the local level.
- 4.6.5 The proposals incorporate the retention of all the hedgerows and treelines within the site, with the only losses occurring to a small section of H2 for construction of an access road. Retained hedgerows and treelines will be protected during the construction phase of the proposals as per the recommendations included at Section 6 below. Furthermore, the proposals incorporate new planting which will link with and strengthen the retained hedgerows (a number of which were noted to be somewhat gappy in nature) which will enhance the value of these features for biodiversity.

4.7 Trees

Description

- 4.7.1 A number of trees were recorded within the site, largely associated with the hedgerows and treelines (as set out at Table 4.1 above). Standard trees within the hedgerows and treelines were noted to largely be of a relatively substantial size and range from semi-mature to mature in age with a small number of dead specimens, with a single overhanging Sycamore tree (T5 on Plan 5495/ECO4) located off-site.
- 4.7.2 A small number of additional young to semi-mature trees located outside the hedgerows were largely recorded at the south west of the site, comprising Apple *Malus sp.*

Evaluation

- 4.7.3 Standard trees recorded within hedgerows, particularly those recorded to be large and mature, are of some ecological interest in their own right, and as mentioned above, form important ecological features as part of hedgerows.
- 4.7.4 Other trees located outside the hedgerows are relatively small in size being young to semi-mature in nature such that they are currently of limited ecological interest and are not considered to form important ecological features.
- 4.7.5 It is understood that the trees within the boundary hedgerows and treelines are retained under the proposals and as such, subject to recommended safeguards set out at Chapter 6 below, the trees within the site will be protected under the proposals, whilst new planting will provide new opportunities for wildlife.

¹⁵ Based on: Biodiversity Reporting and Information Group (2011) 'UK Biodiversity Action Plan (BAP) Priority Habitat Descriptions', ed. Ant Maddock

4.8 Habitat Evaluation Summary

- 4.8.1 On the basis of the above, the following habitats within and adjacent to the site are considered to form important ecological features:

Table 4.2. Evaluation summary of habitats forming important ecological features.

Habitat	Level of Importance
Hedgerows, Treelines and Wooded Strip	Local

- 4.8.2 Other habitats present within the site include semi-improved grassland, tall ruderal vegetation and scrub and scattered trees. However, these habitats do not form important ecological features.

5 Faunal Use of the Site

5.1 Overview

- 5.1.1 During the survey work, general observations were made of any faunal use of the site with specific attention paid to the potential presence of protected or notable species. Specific survey work was undertaken in respect of bats, [REDACTED], Great Crested Newt and reptiles, with the results described below.

5.2 Priority Species

- 5.2.1 Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places duties on public bodies to have regard to the conservation of biodiversity in the exercise of their normal functions. In particular, Section 41 of the NERC Act requires the Secretary of State to publish a list of species which are of principal importance for conservation in England. This list is largely derived from the 'Priority Species' listed under the former UK Biodiversity Action Plan (BAP), which continue to be regarded as priority species under the subsequent country-level biodiversity strategies.
- 5.2.2 During the survey work, a single Priority Species Slow-worm *Anguis fragilis* was recorded within the site.

5.3 Bats

- 5.3.1 **Legislation.** All British bats are classed as European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended) and are also listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). As such, both bats and their roosts (breeding sites and resting places) receive full protection under the legislation (see Appendix 5495/4 for detailed provisions). If proposed development work is likely to result in an offence a licence may need to be obtained from Natural England which would be subject to appropriate measures to safeguard bats. Given all bats are protected species, they are considered to represent important ecological features. A number of bat species are also considered S41 Priority Species.
- 5.3.2 **Background Records.** Records of Serotine Bat *Eptesicus serotinus*, Pipistrelle bat species *Pipistrellus sp.* and Brown Long-Eared Bat *Plecotus auritus* were returned from KMBRC recorded approximately 50m to the north east of the site. Further information received from Kent Bat Group (KBG) returned records of Daubenton's Bat *Myotis daubentonii*, Natterer's Bat *Myotis nattereri*, Myotis bat species *Myotis sp.* and Noctule *Nyctalus noctula* within 5km of the site. The closest record is located approximately 800m north east of the site boundary, and relates to hibernating Daubenton's Bat and unidentified Myotis bat species.

Survey Results and Evaluation

Roosting

- 5.3.3 A number of semi-mature and mature trees are present at the site boundaries. The results of the tree assessment work undertaken at the site are illustrated on Plan 5495/ECO4 and summarised in Table 5.1 below:

Table 5.1. Tree inspection results.

Tree No.	Species	Age	Potential Roost Features	Suitability
T1	Unknown	Dead	Cavities appear exposed, lifted bark	Low
T2	Unknown	Dead	Ivy coverage	Low
T3 (off-site)	Sycamore	Semi-mature/Mature	A number of holes in trunk	Moderate / High
T4	Ash	Mature (Coppiced)	An exposed cavity present on trunk	Low
W1	Various	Semi-mature	The wooded strip comprises a number of trees of a size and age that could support roosting bats, albeit no specific elevated roosting features were identified	Low

- 5.3.4 All trees with potential bat roost features are located at the site boundaries associated with hedgerows and treelines, which are retained under the proposals. As such, subject to the implementation of the recommendation outlined at Section 6 below, it is considered that any roosting bats (if present) will be fully safeguarded under the proposals.

Foraging / Commuting

- 5.3.5 With regard to foraging and commuting bats, the site is likely to be of some value in relation to the boundary hedgerow and treelines which likely support a small invertebrate biomass, whilst they also form linear features, of potential value to bats as commuting corridors. The grassland, which dominates the site however, is likely to be of lower value, whilst given the small size of the site and the abundance of suitable habitat in the surrounding area, it is unlikely to be of significance as part of a wider foraging area.
- 5.3.6 As such, given the boundary habitats will be retained under the proposals, and following the recommendations outlined in Section 6 below, it is considered that foraging and commuting bats will not be detrimentally affected by the proposals.

¹⁶ English Nature (2002)

¹⁷ Natural England (2011) *A Guide to Best Practice and Licensing*, Interim Guidance Document

5.4.4

5.4.5

5.5 Dormouse

5.5.1 Legislation. Dormouse *Muscardinus avellanarius* is fully protected under the Wildlife and Countryside Act 1981 (as amended) and is a European Protected Species under the Conservation of Habitats and Species Regulations 2017. Such legislation affords protection to individuals of the species and their breeding sites and places of rest (see Annex 1 for detailed provisions). Dormouse is also a S41 Priority Species. On this basis, Dormouse is considered to form an important ecological feature.

5.5.2 Background Records. Information returned from KMBRC produced numerous records for Dormouse, the nearest of which was recorded approximately 1.4km south west of the site.

5.5.3 Survey Results and Evaluation. The presence of Dormouse at the site has been considered, and whilst the boundary hedgerows and treelines support potential habitat for this species, notably associated with the wooded strip W1, these habitats lack connectivity to areas of woodland, being clearly separated by roads to the north and south, and residential development to the east. As such, these features are considered unlikely to have been colonised by Dormouse, and the species is therefore considered unlikely to make use of the site. In any event, the boundary features will be retained under the proposals, aside from a small section of hedgerow H2 (which is of lower value) in order to create access to the site, and following the recommendations detailed in Section 6 below, will be suitably safeguarded. Habitats lost to the proposals are largely limited to grassland and ruderal vegetation which do not support habitat suitable for this species. As such, Dormouse are not considered to form a constraint at the site.

5.6 Other Mammals

5.6.1 Legislation. A number of other UK mammal species do not receive direct legislative protection relevant to development activities but may receive protection against acts of cruelty (e.g. under the Wild Mammals (Protection) Act 1996). In addition, a number of these mammal species are S41 Priority Species and should be assessed as important ecological features.

5.6.2 Background Records. Information returned from KMBRC included records for Hedgehog *Erinaceus europaeus*, Eurasian Common Shrew *Sorex araneus*, Pygmy Shrew *Sorex minutus*, Weasel *Mustela nivalis* and Brown Hare *Lepus europaeus*. The nearest record relates to Pygmy Shrew, located approximately 870m to the north east of the site.

- 5.6.3 **Survey Results and Evaluation.** Other mammals, such as Water Vole *Arvicola amphibius* and Otter *Lutra lutra* were considered, however no suitable habitat was identified for these species within or adjacent to the site. As such, these species are not considered a constraint to the proposals.
- 5.6.4 No evidence of any other protected mammal species was recorded within the site. The site provides some potential opportunities for Hedgehog, Harvest Mouse *Micromys minutus* and Brown Hare, which are listed as species of principal importance in England under Section 41 of the Natural Environment and Rural Communities NERC Act 2006. Given previous background records for Hedgehog and Brown Hare from the surrounding area, it is possible that these species make some use of the site. These species remain relatively common and widespread in England, whilst following the proposals, the site would likely continue to provide similar potential opportunities for Hedgehog, which is known to be a frequent colonist of urban residential areas, whilst abundant similar habitats of suitability for these species are located in the surrounds of the site. On this basis, other priority mammal species are considered to be of potential local importance. As such, proposed mitigation measures detailed at Section 6 are designed to safeguard these species in the long term.
- 5.6.5 Other common mammals such as Fox *Vulpes vulpes* are considered likely to be present at the site, and evidence for the presence of Rabbit was recorded. These species receive no protection outside of the Wild Mammals (Protection) Act, mentioned above. As such, other mammal species are not considered to form an important ecological feature.

5.7 Amphibians

- 5.7.1 **Legislation.** All British amphibian species receive a degree of protection under the Wildlife and Countryside Act 1981 (as amended). Great Crested Newt is protected under the Act and is also classed as a European Protected Species under the Conservation of Habitats and Species Regulations 2017 (as amended). As such, both Great Crested Newt and habitats utilised by this species are afforded protection (see Appendix 5495/4 for detailed provisions). Great Crested Newt is also a S41 Priority Species, as are Common Toad *Bufo bufo*, Natterjack Toad *Epidalea calamita*, and Pool Frog *Pelophylax lessonae*. As such, these species should be assessed as important ecological features.
- 5.7.2 **Background Records.** No records of Great Crested Newt from within or adjacent to the site were returned from the desktop study. Records for Smooth Newt *Lissotriton vulgaris*, Common Toad, and Common Frog *Rana temporaria*, were returned from within a 2km radius of the site. The nearest record relates to Common Frog, located approximately 60m to the south west of the site, and dated 2010.
- 5.7.3 **Survey Results.** Two ponds were recorded to be present within 500m of the site as shown on Plan 5450/ECO5. Pond P2 was recorded to be dry both during the Phase 1 survey in September 2018, in June 2019 and in April 2022. Pond P1 however was recorded to be holding water during all of these periods, and as such was subject to further survey work in the form of an eDNA survey. The eDNA analysis of pond P1 was completed during 2019 which returned a negative result for Great Crested Newt. An additional eDNA survey was attempted during 2022 however the pond was not accessible due to health and safety concerns. Given the nature of the pond has not altered since the negative result in 2019, the lack of background records and general scarcity of ponds within the surrounds of the site, it is assumed Great Crested Newts highly unlikely to have colonised the pond. As such this species is not considered to form a constraint to the proposals.

5.8 Reptiles

- 5.8.1 Legislation.** All six species of British reptile are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), which protects individuals against intentional killing or injury. Sand Lizard *Lacerta agilis* and Smooth Snake *Coronella austriaca* receive additional protection under the Conservation of Habitats and Species Regulations 2017 (as amended); refer to Appendix 5495/4 for detailed provisions. All six reptile species are also S41 Priority Species. As such, all reptile species should be assessed as important ecological features.
- 5.8.2 Background Records.** Information returned from KMBRC returned records for Common Lizard *Zootoca vivipara*, Slow-worm and Grass Snake *Natrix natrix*, the nearest of which relates to Common Lizard located approximately 220m to the east of the site and recorded in 2005.
- 5.8.3 Survey Results and Evaluation.** The site provides some potential opportunities for reptile species, in the form of areas of semi-improved grassland and tall ruderal vegetation, with hedgerows and treelines providing potential refuge and hibernation habitats.
- 5.8.4** As such, given the presence of potential reptile habitat within the site, specific reptile survey work was undertaken during 2018 with update surveys completed during 2022. The results of the survey work undertaken are set out in Table 5.3 below and illustrated at Plan 5495/ECO4.

Table 5.3. Results of reptile presence / absence survey work undertaken at the site during 2018 (see Plan 5495/ECO4 for refugia locations)

Visit	Date	Common Lizard		Slow-worm		Grass Snake		Adder		Other Species
		Adult	Juv	Adult	Juv	Adult	Juv	Adult	Juv	
1	02/10/2018	0	0	0	0	0	0	0	0	-
2	04/10/2018	0	0	0	0	0	0	0	0	-
3	08/10/2018	0	0	0	0	0	0	0	0	-
4	10/10/2018	0	0	0	0	0	0	0	0	-
5	12/10/2018	0	0	0	0	0	0	0	0	-
6	15/10/2018	0	0	0	0	0	0	0	0	-
7	17/10/2018	0	0	0	0	0	0	0	0	-
Peak Count		0		0		0		0		-

Table 5.4. Results of reptile presence / absence survey work undertaken at the site during 2022 (see Plan 5495/ECO4 for refugia locations)

Visit	Date	Common Lizard		Slow-worm		Grass Snake		Adder		Other Species
		Adult	Juv	Adult	Juv	Adult	Juv	Adult	Juv	
1	18/05/2022	0	0	2	0	0	0	0	0	-
2	23/05/2022	0	0	0	0	0	0	0	0	-
3	31/05/2022	0	0	0	0	0	0	0	0	-
4	09/06/2022	0	0	1	0	0	0	0	0	-
5	15/06/2022	0	0	0	0	0	0	0	0	-
6	23/06/2022	0	0	0	0	0	0	0	0	-
7	01/07/2022	0	0	0	0	0	0	0	0	-
Peak Count		0		2		0		0		-

5.8.5 As set out in Table 5.3 above, no reptiles were recorded during the 2018 surveys. However as shown in Table 5.4, small numbers of Slow-worms were recorded during the 2022 update surveys, with two and one adults recorded from tall ruderal vegetation along the southern site boundary during the first and fourth visits respectively.

5.8.6 A peak count of two Slow-worm were recorded during the survey work at the site (Plan 5495/ECO4). Based on guidance set out by 'Advice Sheet 10: Reptile Survey' (Froglife, 1999), these numbers correspond to an overall 'low' population of Slow Worm. As such the site is unlikely to classify as a Key Reptile site, although is considered to be of local importance. To safeguard the reptile population on site further measures have been highlighted in Section 6 below.

5.9 Birds

5.9.1 **Legislation.** All wild birds and their nests receive protection under Section 1 of the Wildlife and Countryside Act 1981 (as amended) in respect of killing and injury, and their nests, whilst being built or in use, cannot be taken, damaged or destroyed. Species included on Schedule 1 of the Act receive greater protection and are subject to special penalties (see Appendix 5495/4 for detailed provisions).

5.9.2 **Conservation Status.** The conservation importance of British bird species is categorised based on a number of criteria including the level of threat to a species' population status¹⁸. Species are listed as Green, Amber or Red. Red Listed species are considered to be of the highest conservation concern being either globally threatened and or experiencing a high/rapid level of population decline (>50% over the past 25 years). A number of birds are also S41 Priority Species. Red and Amber listed species and priority species should be assessed as important ecological features.

5.9.3 **Background Records.** Information from the data search included records for several bird species in the vicinity of the site, including the Red Listed species Corn Bunting *Miliaria calandra*, Yellowhammer *Emberiza citrinella*, Hawfinch *Coccothraustes coccothraustes*, Lesser Redpoll *Carduelis cabaret*, Linnet *Carduelis cannabina*, Skylark *Alauda arvensis*, House Sparrow *Passer domesticus*, Tree Sparrow *Passer montanus*, Song Thrush *Turdus philomelos*, Starling *Sturnus vulgaris*, Willow Tit *Parus montanus*, Marsh Tit *Parus palustris*, Spotted Flycatcher *Muscicapa striata*, Grasshopper Warbler *Locustella naevia*, Ring Ouzel *Turdus torquatus*, Yellow Wagtail *Motacilla flava*, Tree Pipit *Anthus trivialis*, Lesser Spotted Woodpecker *Dendrocopus minor*, Cuckoo *Cuculus canorus*, Turtle Dove *Streptopelia turtur*, Herring Gull *Larus argentatus*, Lapwing *Vanellus vanellus* and Grey Partridge *Perdix perdix*, which are also all Priority Species. None of the records originate from within the site itself. The nearest records relate to Ring Ouzel, Grasshopper Warbler and Corn Bunting, located approximately 620m east of the site and registered between 2004 and 2016.

5.9.4 **Survey Results and Evaluation.** Several species of bird were observed within the site during the Phase 1 survey including Blue Tit *Cyanistes caeruleus* and Goldfinch *Carduelis carduelis*. All of the birds recorded at the site are not listed as having any special conservation status, and the habitats present are not considered to be of any specific value to breeding birds aside from common and widespread urban species. The proposals will however result in the loss of a small amount of potential nesting habitat in the form of removing a small amount of hedgerow H2 to allow for access to the site, albeit this will be compensated for under the

¹⁸ Eaton MA, Aebischer NJ, Brown AF, Hearn RD, Lock L, Musgrove AJ, Noble DG, Stroud DA and Gregory RD (2015) 'Birds of Conservation Concern 4: the population status of birds in the United Kingdom, Channel Islands and the Isle of Man' British Birds 108, pp.708-746

proposals. According, a number of safeguards in respect of nesting birds are proposed, as detailed in section 6 below.

- 5.9.5 Additionally, given the requirement as set out in the draft allocation the site was subject to wintering bird surveys. The wintering bird surveys were completed by a third-party consultancy, the full report is included at Appendix 5995/5. The surveys concluded no significant population of winter birds were recorded on site with the majority of the species record being common and widespread within the county. Therefore, the overall nature conservation value of the wintering bird assemblage within the site is considered to be of importance at the site level. Full details of the methodology, results and recommendations are included within Appendix 5495/5.

5.10 Invertebrates

- 5.10.1 **Legislation.** A number of invertebrate species are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). In addition, Large Blue Butterfly *Maculinea arion*, Fisher's Estuarine Moth *Gortyna borelii lunata* and Lesser Whirlpool Ram's-horn Snail *Anisus vorticulus* receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended); refer to Appendix 5495/4 for detailed provisions. A number of invertebrates are also S41 Priority Species.
- 5.10.2 **Background records.** No specific records of invertebrates were returned from within or adjacent to the site. Numerous records were returned from within the vicinity of the site, including Priority Species Wart-biter *Decticus verrucivorus*, Ghost Moth *Hepialus humuli*, Horehound Long-horn *Nemophora fasciella*, Fiery Clearwing *Pyropteron chrysidiformis*, Dingy Skipper *Erynnis tages*, Wall *Lasiommata megera*, Small Heath *Coenonympha pamphilus*, White-letter Hairstreak *Satyrus w-album*, Small Blue *Cupido minimus*, Oak Hook-tip *Watsonalla binaria*, Mullein Wave *Scopula marginepunctata*, Blood-vein *Timandra comae*, Shaded Broad-bar *Scotopteryx chenopodiata*, Small Phoenix *Ecliptopera silaceata*, Pretty Chalk Carpet *Melanthia procellata*, Latticed Heath *Chiasmia clathrata*, Straw Belle *Aspitates gilvaria*, Buff Ermine *Spilosoma luteum*, Cinnabar Moth *Tyria jacobaeae*, Knot Grass Moth *Acronicta rumicis*, Mottled Rustic *Caradrina morpheus*, Rustic Moth *Hoplodrina blanda*, Dot Moth *Melanchra persicariae*, and Hornet Robberfly *Asilus crabroniformis*.
- 5.10.3 **Survey Results and Evaluation.** No evidence for the presence of any protected, rare or notable invertebrate species was recorded within the site. The site is dominated by species poor semi-improved grassland with associated hedgerows and treelines. The site supports a very small amount of trees and scrub, restricted to the boundaries, but otherwise contains relatively few micro-habitats that would typically indicate elevated potential for invertebrates¹⁹, such as a variable topography with areas of vertical exposed soil, areas of species-rich semi-natural vegetation; variable vegetation structure with frequent patches of tussocks combined with short turf; free-draining light soils; walls with friable mortar or fibrous dung. Accordingly, given the habitat composition of the site and lack of adjacent sites designated for significant invertebrate interest, it is considered unlikely that the proposals will result in significant harm to any protected, rare or notable invertebrate populations, and as such this species group is not considered to form an important ecological feature.

5.11 Summary

- 5.11.1 On the basis of the above, a summary of the evaluation of fauna is provided below:

¹⁹ Natural England (2010) 'Higher Level Stewardship – Farm Environment Plan (FEP) Manual', 3rd Edition

Table 5.5. Evaluation summary of fauna forming important ecological features.

Species / Group	Supported by or associated with the site	Level of Importance
Bats – Roosting	A small number of trees with low to moderate roosting value at site boundaries	Local
Bats – Foraging/Commuting	Hedgerows and treelines form features likely of some value as an invertebrate resource and as navigational aids	Local
Reptiles	Confirmed presence on site	Local
Other priority mammals (Hedgehog, Brown Hare, Harvest Mouse)	Some potential opportunities for these species to use the site as part of a wider range	Site
Birds	There is some potential for common species to make occasional use of the site as a resting and foraging resource.	Site

- 5.11.2 Other fauna potentially supported by the site include non-priority species of mammals, common amphibian species and common invertebrates. However, these species do not form important ecological features.

6 Mitigation Measures and Ecological Enhancements

6.1 Mitigation

- 6.1.1 Based on the habitats, ecological features and associated fauna identified within / adjacent to the site, it is proposed that the following mitigation measures (MM1 – MM8) are implemented under the proposals. Further, detailed mitigation strategies or method statements can be secured via suitably-worded planning conditions, as recommended by relevant best practice guidance (BS 42020:2013).

Offsite Habitats and Designations

- 6.1.2 **MM1 – Offsite Habitat Safeguards.** A number of designated sites are present in the vicinity of the site. Whilst these designations are located entirely offsite with a buffer of urban and agricultural land between the site and all designation boundaries, the following safeguards are nevertheless recommended on a precautionary basis:

- Damping down of dust sources and covering of loose materials to minimise any potential dust deposition within adjacent habitats; and
- Implementation of engineering safeguards as part of construction works to control surface water run-off and avoid contamination of ponds and watercourses. This could include measures such as the use of a temporary silt trap in order to form an intercept for silt and other potential pollutants.

- 6.1.3 Implementation of appropriate water efficiency measures will also be required to avoid adverse effects on nearby European designations as set out in the document at Appendix 5495/3.

Hedgerows and Trees

- 6.1.4 **MM2 – Hedgerow and Tree Protection.** All hedgerows and trees to be retained within the proposed development shall be protected during construction in line with standard arboriculturalist best practice (BS5837:2012) or as otherwise directed by a suitably competent arboriculturalist. This will involve the use of protective fencing or other methods appropriate to safeguard the root protection areas of retained trees / hedgerows.

Bats

- 6.1.5 **MM3 – Bat Potential Tree Safeguards.** As set out above, a number of trees have been identified as supporting features of low to moderate value to roosting bats (as detailed on Plan 5495/ECO4). No trees supporting moderate bat roosting potential have been identified for removal under the current layout, although should a need for works to any such tree be identified at a later stage (e.g. for health and safety purposes) it is recommended a suitably qualified ecologist is consulted to advise on any further survey requirements and mitigation measures. Such measures may include climbing inspections to investigate potential roosting features and soft felling of trees under an ecological watching brief.

- 6.1.6 Should any tree identified to support low bat roosting potential require removal or management, a precautionary approach should be taken in regard to removal. If necessary, the trees should be removed through 'soft-felling' techniques and felled in sections which are lowered and cushioned to reduce any potential effects caused by hard impact with the ground. Felled limbs would ideally be left on the ground at the site overnight to allow any bats to escape in the unlikely event they are present.

6.1.7 **MM4 – Sensitive Lighting.** Light-spill onto retained and newly created habitat, in particular the retained hedgerows, tree lines and scrub (especially along the northern and eastern boundaries), will be minimised in accordance with good practice guidance²⁰ to reduce potential impacts on light-sensitive bats (and other nocturnal fauna). This may be achieved through the implementation of a sensitively designed lighting strategy, with consideration given to the following key factors:

- **Light exclusion zones** – ideally no lighting should be used in areas likely to be used by bats. Light exclusion zones or ‘dark corridors’ may be used to provide interconnected areas free of artificial illumination to allow bats to move around the site;
- **Variable Lighting Regimes** – VLRs can be employed, which involve switching off/dimming lights for periods during the night, for example when human activity is generally low (e.g. 12.30 – 5.30am). The use of VLRs may be particularly beneficial during the active bat season (April to October). Motion sensors can also be used to limit the time lighting is operational;
- **Light barriers** – new planting (e.g. hedgerows and trees) or fences, walls and buildings can be strategically positioned to reduce light spill;
- **Spacing and height of lighting units** – increasing spacing between lighting units will minimise the area illuminated and allow bats to fly in the dark refuges between lights. Reducing the height of lighting will also help decrease the volume of illuminated space and give bats a chance to fly over lighting units (providing the light does not spill above the vertical plane). Low level lighting options should be considered for any parking areas and pedestrian / cycle routes, e.g. bollard lighting, handrail lighting or LED footpath lighting;
- **Light intensity** – light intensity (i.e. lux levels) should be kept as low as possible to reduce the overall amount and spread of illumination. The type of light should also be considered, for example lights with high ultraviolet content (e.g. metal halide or mercury lights) should be avoided or fitted with UV filters; and
- **Directionality** – to avoid light spill lighting should be directed only to where it is needed. Particular attention should be paid to avoid the upward spread of light so as to minimise trespass and sky glow.

²⁰ Stone, E.L. (2013) ‘Bats and lighting: Overview of current evidence and mitigation guidance.’ ILP (2011) ‘Guidance notes for the reduction of obtrusive light’ Institution of Lighting Professionals, GN01:2011; and Bat Conservation Trust (2014) ‘Artificial Lighting and Wildlife – Interim Guidance: Recommendations to help minimise the impact of artificial lighting’.

Hedgehog

- 6.1.10 **MM6 – Hedgehog Construction Safeguards.** Given habitats at the site provide potential for Hedgehog, it is recommended that vegetation clearance is carried out in a precautionary manner under a watching brief maintained by site contractors. It is recommended that any tall vegetation is reduced in height, through staged strimming with any arisings removed outside of extreme weather, where possible. Care should be taken when dismantling / removing any brash piles, rubble piles or areas of strimmed vegetation from the survey area, before any ground works commence, to ensure that any species utilising the survey area have safely dispersed to offsite habitats. In the unlikely event that a Hedgehog is encountered during works, it should be carefully moved to an area of retained, suitable habitat (preferably within an area of cover). In the event that an injured animal is encountered, this should be taken to a vet or animal hospital for treatment.

Nesting Birds

- 6.1.11 **MM7 – Timing of Works.** To avoid a potential offence under the relevant legislation, no clearance of suitable vegetation should be undertaken during the bird-nesting season (1st March to 31st August inclusive). If this is not practicable, any potential nesting habitat to be removed should first be checked by a competent ecologist in order to determine the location of any active nests. Any active nests identified would then need to be cordoned off (minimum 5m buffer) and protected until the end of the nesting season or until the birds have fledged. These checking surveys would need to be carried out no more than three days in advance of vegetation clearance.

Reptiles

- 6.1.1 **MM8 - Habitat Manipulation Exercise.** Only very low numbers of Slow-worm have been recorded at the site, associated with the southern boundary of the site and likely associated

with offsite gardens. As a precautionary measure to minimise the risk of harm to reptiles, a habitat manipulation exercise is proposed. This will involve cutting the longer grassland and marginal / ruderal vegetation within the development footprint to a short height (~15cm) so as to encourage reptiles to disperse to suitable areas of retained/nearby habitat, whilst also allowing for a fingertip search of the area. Vegetation should then be cut to ground level to render habitats unsuitable for reptiles. This exercise should be carried out under the supervision of a competent ecologist during the active reptile season where practicable (generally March/April to September/October, depending on prevailing weather). Any potential refuge features, e.g. piles of rubble, heavy logs, brash piles, will be fingertip-searched by an ecologist prior to being carefully disassembled. Any reptiles encountered during the destructive search will be carefully rescued by the supervising ecologist and relocated to suitable nearby habitat.

- 6.1.2 Following completion of the habitat manipulation exercise, habitats should be maintained at a short sward height to prevent recolonisation by reptiles. Alternatively, reptile exclusion fencing could be installed at the perimeter of the construction area to exclude them from areas of works.

6.2 Ecological Enhancements

- 6.2.1 The National Planning Policy Framework (NPPF) encourages new developments to maximise the opportunities for biodiversity through incorporation of enhancement measures. The proposals present the opportunity to deliver ecological enhancements at the site for the benefit of local biodiversity, thereby making a positive contribution towards the broad objectives of national conservation priorities and the local Biodiversity Action Plan (BAP). The recommendations and enhancements summarised below are considered appropriate given the context of the site and the scale and nature of the proposals. Through implementation of the following ecological enhancements (EE1 – EE6), the opportunity exists for the proposals to deliver a number of biodiversity benefits at the site.

Habitat Creation

- 6.2.2 **EE1 – New Planting.** It is recommended that where practicable, new planting within the site be comprised of native species of local provenance, including trees and shrubs appropriate to the local area. Suitable species for inclusion within the planting could include native trees such as Oak, Ash, Birch *Betula pendula* and Field Maple, whilst native shrub species of particular benefit would likely include fruit and nut bearing species which would provide additional food for wildlife, such as Blackthorn, Hawthorn, Crab Apple *Malus sylvestris*, Hazel *Corylus avellana* and Elder. Where non-native species are proposed, these should include species of value to wildlife, such as varieties listed on the RHS' 'Plants for Pollinators' database, providing a nectar source for bees and other pollinating insects.
- 6.2.3 **EE2 – Wildflower Grassland.** It is recommended that areas of wildflower grassland are created within the site such that, in combination with new native landscape planting, opportunities for biodiversity will be maximised under the proposals. Consideration should be given to the laying of wildflower turfs, comprising locally appropriate native species, to establish wildflower grassland. This would ensure rapid establishment of these habitats, and reduce the timeframe for delivering the range of ecological benefits that are proposed.
- 6.2.4 **EE3 – Wetland Features.** The opportunity exists under the proposals to create new wetland habitats that will provide a range of opportunities for wildlife. It is recommended that ponds or other wetland habitats such as Sustainable Urban Drainage Systems (SUDS) under the proposals be given due consideration. Creation of such habitats would provide

opportunities for a range of wildlife in conjunction with the enhanced ditches (if guided by ecological principles) while also helping to attenuate surface water run-off.

Bats

- 6.2.5 **EE4 - Bat Boxes.** A number of bat boxes are recommended to be incorporated within the proposed development. The provision of bat boxes will provide new roosting opportunities for bats in the area, such as Soprano Pipistrelle, a national Priority Species. So as to maximise their potential use, the bat boxes should ideally be situated on suitable retained trees, erected as high up as possible and sited in sheltered wind-free areas that are exposed to the sun for part of the day, facing a south-east, south or south-westerly direction. In addition, where architectural design allows, a number of integrated bat boxes / roost features should be incorporated into a proportion of the new build. The precise number and locations of boxes / roost features should be determined by a competent ecologist, post-planning once the relevant final development design details have been approved.

Birds

- 6.2.6 **EE5 - Bird Boxes.** A number of bird nesting boxes are recommended to be incorporated within the proposed development, thereby increasing nesting opportunities for birds at the site. Ideally, the bird boxes will have greater potential for use if sited on suitable, retained trees, situated as high up as possible. The precise number and locations of boxes should be determined by a competent ecologist, post-planning once the relevant final development design details have been approved.

Reptiles

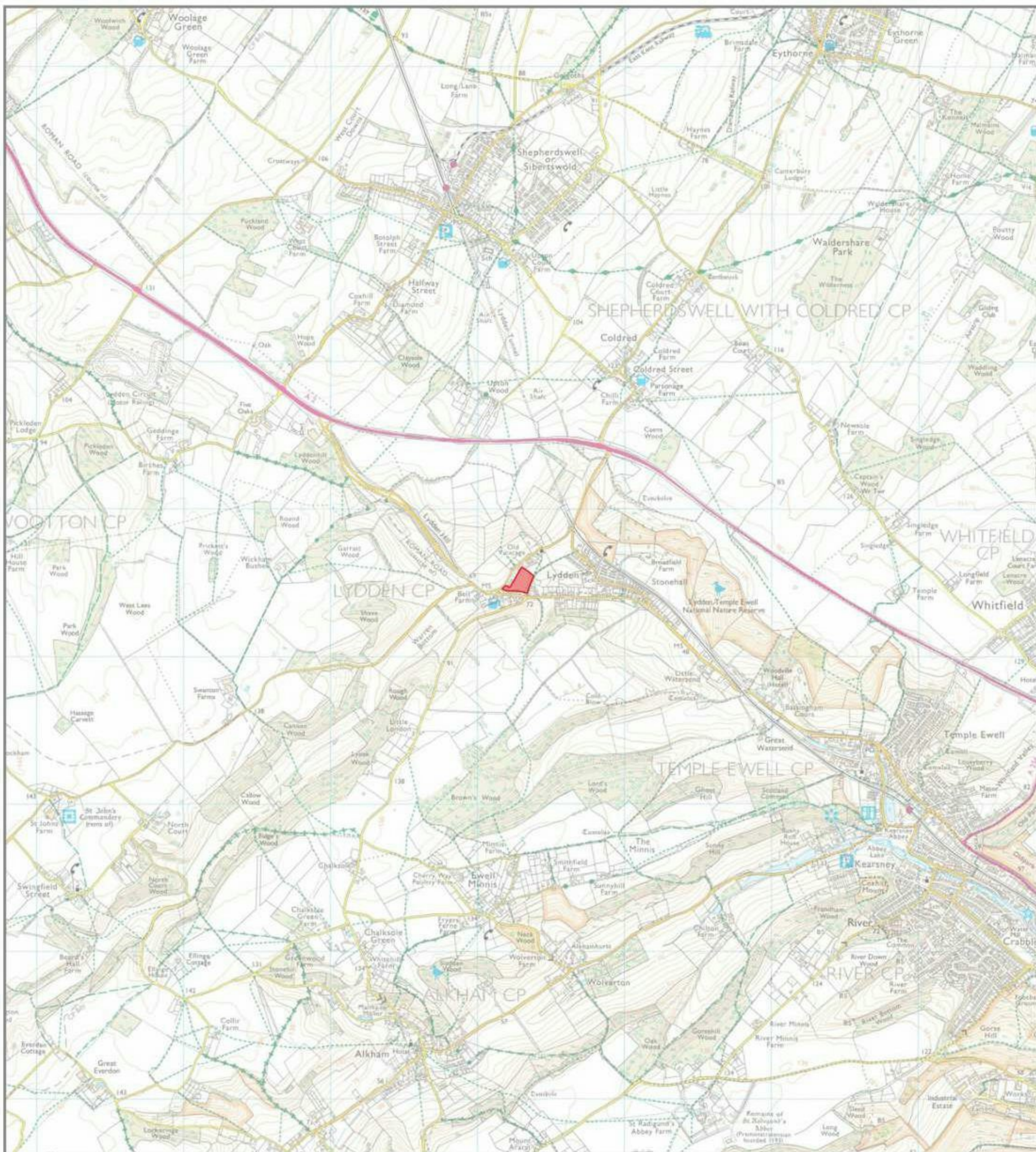
- 6.2.7 **EE6 – Habitat Piles.** A proportion of any deadwood arising from vegetation clearance works should be retained within the site in a number of wood piles located within areas of new planting, new wetland habitats or areas of wildflower grassland in order to provide potential habitat opportunities for reptile species.

7 Conclusions

- 7.1.1 Aspect Ecology has carried out an Ecological Appraisal of the proposed development, based on the results of a desktop study, Phase 1 habitat survey and a number of detailed protected species surveys.
- 7.1.2 The available information confirms that no statutory or non-statutory nature conservation designations are present within or adjacent to the site, and none of the designations within the surrounding area are likely to be adversely affected by the proposals, subject to mitigation detailed within this report.
- 7.1.3 The Phase 1 habitat survey has established that the site is dominated by habitats not considered to be of ecological importance, whilst the proposals have sought to retain those features identified to be of value.
- 7.1.4 The habitats within the site have potential to support a number of common and widespread species. Accordingly, a number of mitigation measures have been proposed to minimise the risk of harm to protected species, with compensatory measures proposed, where appropriate, in order to maintain the conservation status of local populations.
- 7.1.5 In conclusion, the proposals have sought to minimise impacts and subject to the implementation of appropriate avoidance, mitigation and compensation measures, it is considered unlikely that the proposals will result in significant harm to biodiversity. On the contrary, the opportunity exists to provide a number of biodiversity benefits as part of the proposals.

Plan 5495/ECO1:

Site Location



Key:



Site Location

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01295 279721 - info@aspect-ecology.com - www.aspect-ecology.com

Land at Lydden PROJECT

Site Location TITLE

5495/ECO1 DRAWING NO.

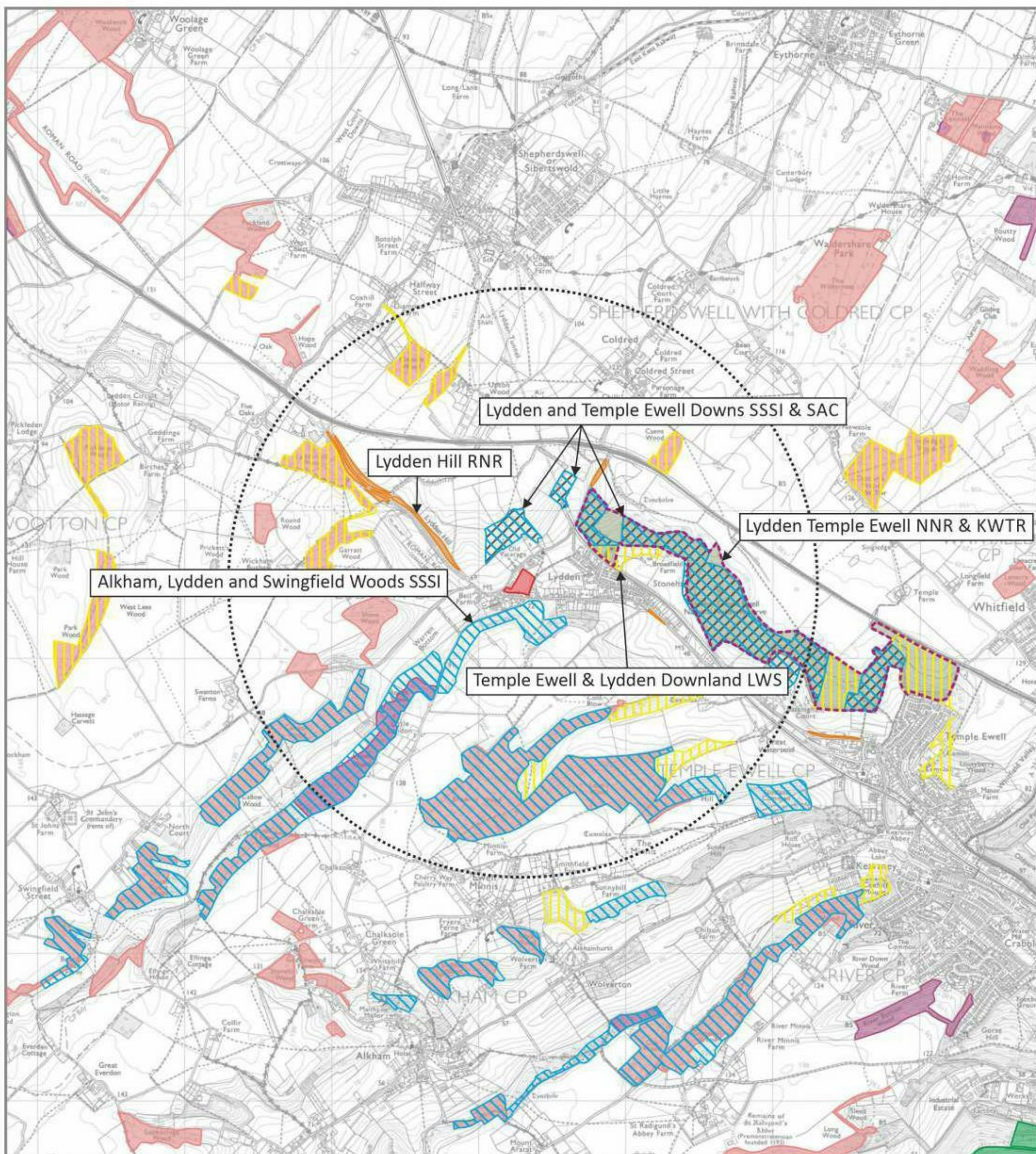
- REV.

July 2023 DATE



Plan 5495/ECO2:

Ecological Designations



Key:

- Site Location
- Special Area of Conservation (SAC)
- Site of Special Scientific Interest (SSSI)
- National Nature Reserve (NNR)
- Local Nature Reserve (LNR)
- Local Wildlife Site (LWS)
- Kent Wildlife Trust Reserve (KWTR)
- Ancient & Semi-Natural Woodland (ASW)
- Ancient Replanted Woodland (ARW)

- Roadside Nature Reserve (RNR)
- Local Record Centre 2km Search Area

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Land at Lydden PROJECT

Ecological Designations TITLE

5495/ECO2 DRAWING NO.

- REV.

July 2023 DATE



Plan 5495/ECO3:

Habitats and Ecological Features



Key:

- Site Boundary
- Semi-improved Grassland
- Tall Ruderal Vegetation
- Woodland Strip
- Brash Pile
- Building
- Pond
- Rabbit Warren
- Hedgerow
- Treeline
- Crowned Treeline
- Tree
- Tree with Low Bat Roosting Potential
- Tree with Moderate-High Bat Roosting Potential
- Scattered Scrub
- Possible Outlier Badger Sett

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Land at Lydden	PROJECT
Habitats and Ecological Features	TITLE
5495/ECO3	DRAWING NO.
B/CC	REV
August 2023	DATE

Plan 5495/ECO4:

Reptile Survey Results



- Key:
- Site Boundary
 - Reptile Transect
 - Slow-worm (Peak Adult Count)



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Land at Lydden	PROJECT
Reptile Survey Results	TITLE
5495/ECO4	DRAWING NO.
B/GJ	REV
August 2023	DATE



Plan 5495/ECO5

Pond Locations and eDNA Results

Pond	2019 eDNA results	2022 eDNA results
P1	Negative result	No access
P2	Dry on visit	Dry on visit

Key:

Site Boundary

Pond

250m Site Buffer

250m Pond Buffer



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Land at Lydden

Pond Locations and eDNA Results for Great Crested Newts

5495/EC05

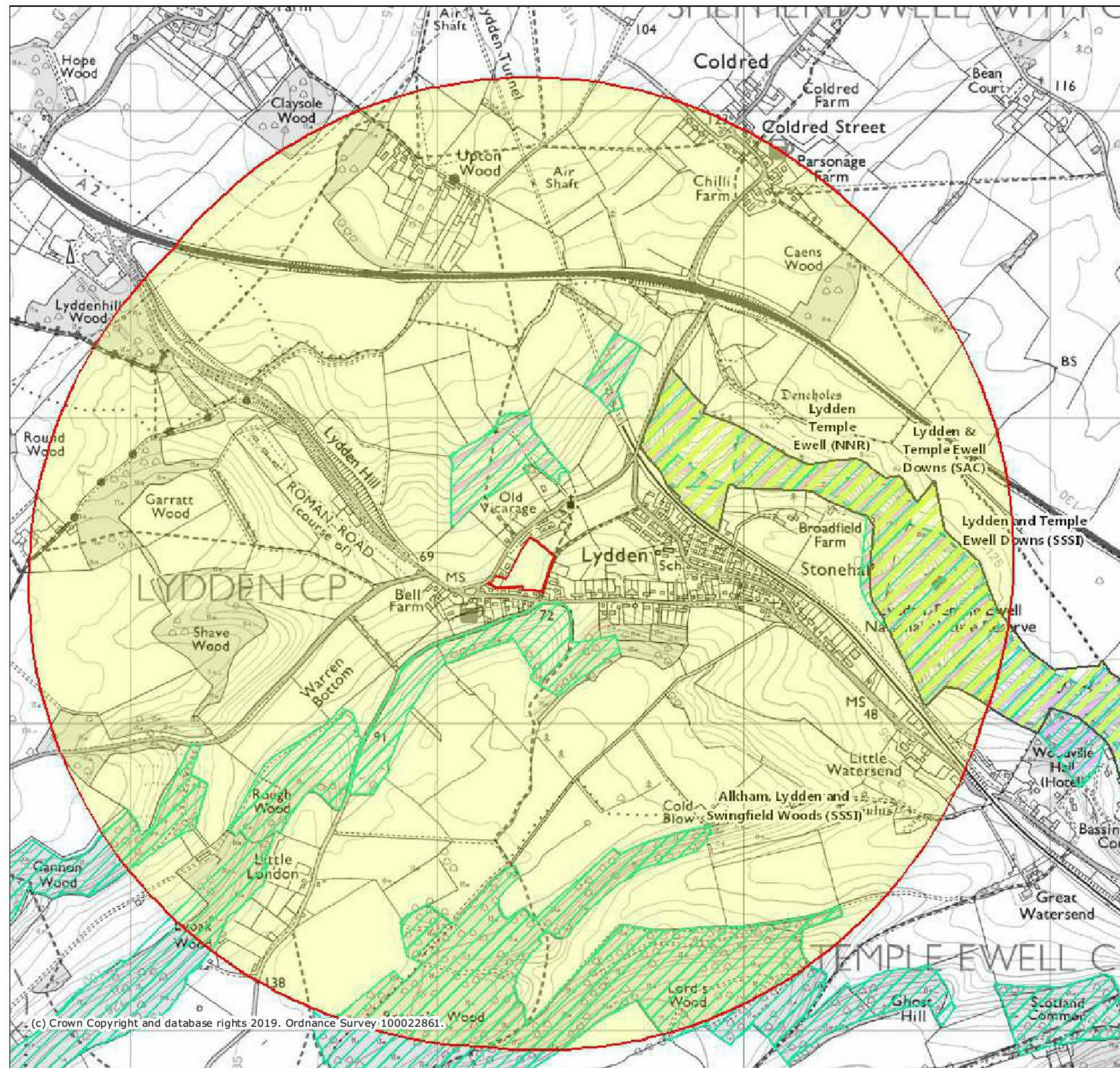
B/GJ

August 2023



Appendix 5495/1:

Desktop Study Data



Legend

- Local Nature Reserves (England)
- National Nature Reserves (England)
- Ramsar Sites (England)
- Proposed Ramsar Sites (England)
- Sites of Special Scientific Interest (England)
- Special Areas of Conservation (England)
- Possible Special Areas of Conservation (England)
- Special Protection Areas (England)
- Potential Special Protection Areas (England)

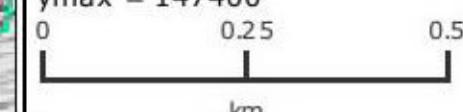
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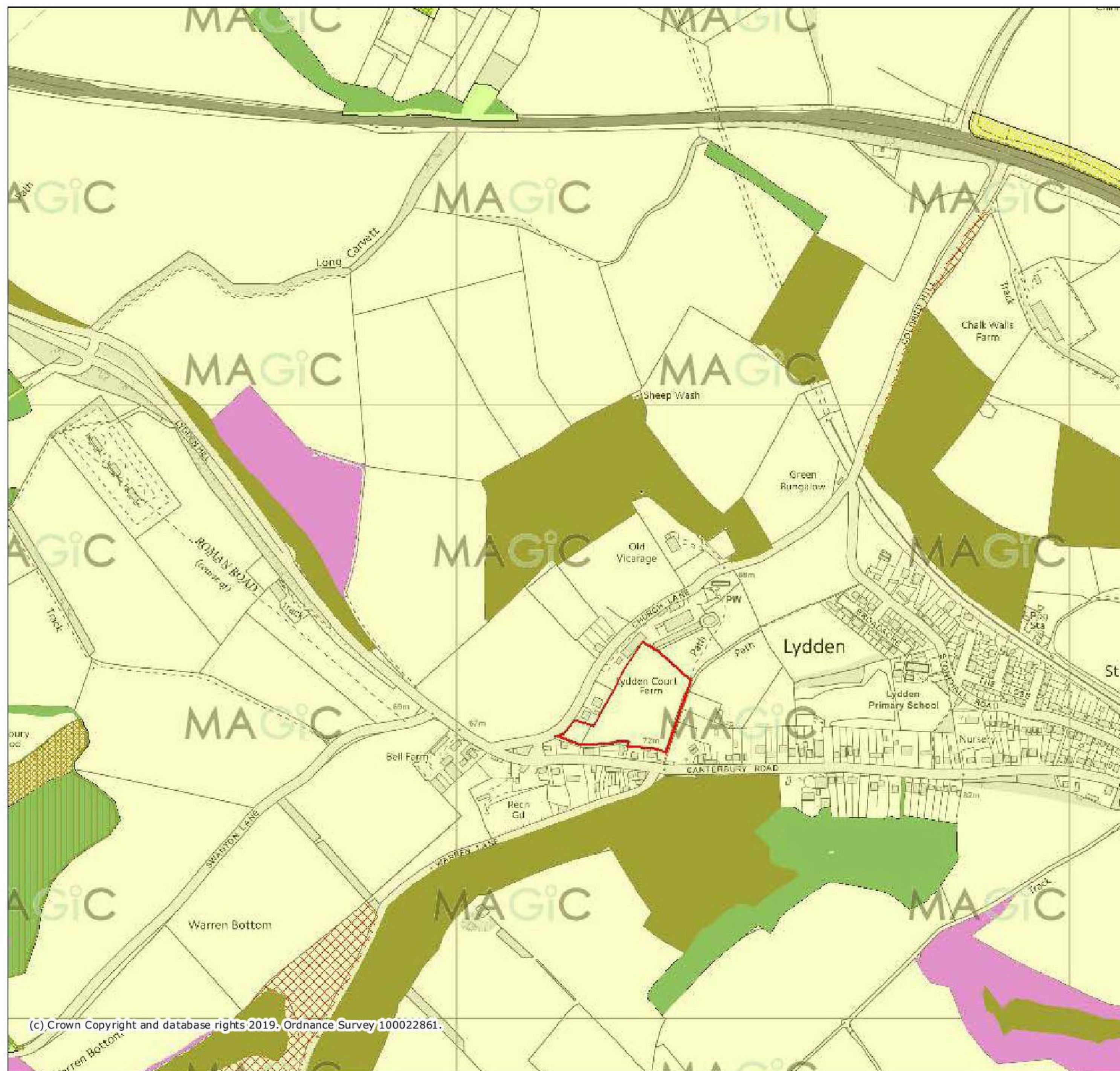
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Legend

- Priority Habitat Inventory - Coastal Saltmarsh (England)
- Priority Habitat Inventory - Coastal Sand Dunes (England)
- Priority Habitat Inventory - Coastal Vegetated Shingle (England)
- Priority Habitat Inventory - Maritime Cliffs and Slopes (England)
- Priority Habitat Inventory - Mudflats (England)
- Priority Habitat Inventory - Saline Lagoons (England)
- Saline Lagoons (Wales)
- Saltmarsh (Wales)
- Sand Dunes (Wales)
- Priority Habitat Inventory - Calaminarian Grassland (England)
- Priority Habitat Inventory - Coastal and Floodplain Grazing Marsh (England)
- Priority Habitat Inventory - Good quality semi-improved grassland (Non Priority) (England)
- Priority Habitat Inventory - Lowland Calcareous Grassland (England)
- Priority Habitat Inventory - Lowland Dry Acid Grassland (England)
- Priority Habitat Inventory - Lowland Meadows (England)
- Priority Habitat Inventory - Purple Moor Grass and Rush Pasture (England)
- Priority Habitat Inventory - Upland Calcareous Grassland (England)
- Priority Habitat Inventory - Upland Hay Meadows (England)
- Priority Habitat Inventory - Lowland Heathland (England)
- Priority Habitat Inventory - Mountain Heaths and Willow Scrub (England)
- Priority Habitat Inventory - Upland Heathland (England)
- Priority Habitat Inventory - Limestone Pavements (England)

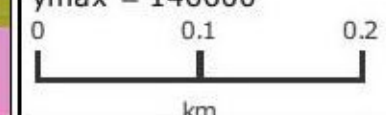
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Appendix 5495/2:

Assessment Methodology

Evaluation Methodology

1. The evaluation of ecological features and resources is based on professional judgement whilst also drawing on the latest available industry guidance and research. The approach taken in this report is based on that described by the Chartered Institute of Ecology and Environmental Management (CIEEM) 'Guidelines for Ecological Impact Assessment in the UK and Ireland' (2018)¹.

Importance of Ecological Features

2. Ecological features within the site/study area have been evaluated in terms of whether they qualify as 'important ecological features'. In this regard, CIEEM guidance states that *"it is not necessary to carry out detailed assessment of features that are sufficiently widespread, unthreatened and resilient to project impacts and will remain viable and sustainable"*.
3. Various characteristics contribute to the importance of ecological features, including:
 - Naturalness;
 - Animal or plant species, sub-species or varieties that are rare or uncommon, either internationally, nationally or more locally, including those that may be seasonally transient;
 - Ecosystems and their component parts, which provide the habitats required by important species, populations and/or assemblages;
 - Endemic species or locally distinct sub-populations of a species;
 - Habitat diversity;
 - Habitat connectivity and/or synergistic associations;
 - Habitats and species in decline;
 - Rich assemblages of plants and animals;
 - Large populations of species or concentrations of species considered uncommon or threatened in a wider context;
 - Plant communities (and their associated animals) that are considered to be typical of valued natural/semi-natural vegetation types, including examples of naturally species-poor communities; and
 - Species on the edge of their range, particularly where their distribution is changing as a result of global trends and climate change.
4. As an objective starting point for identifying important ecological features, European, national and local governments have identified sites, habitats and species which form a key focus for biodiversity conservation in the UK, supported by policy and legislation. These are summarised by CIEEM guidance as follows:

Designated Sites

- Statutory sites designated or classified under international conventions or European legislation, for example World Heritage Sites, Biosphere Reserves, Wetlands of International Importance (Ramsar sites), Special Areas of Conservation (SAC), Special Protection Areas (SPA);

¹ CIEEM (2018) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine', Chartered Institute of Ecology and Environmental Management, Winchester

- Statutory sites designated under national legislation, for example Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR);
- Locally designated wildlife sites, e.g. Local Wildlife Sites (LWS).

Biodiversity Lists

- Habitats and species of principal importance for the conservation of biodiversity in England and Wales (largely drawn from UK BAP priority habitats and priority species), often referred to simply as Priority Habitats / Species;
- Local BAP priority species and habitats.

Red Listed, Rare, Legally Protected Species

- Species of conservation concern, Red Data Book (RDB) species;
- Birds of Conservation Concern;
- Nationally rare and nationally scarce species;
- Legally protected species.

5. In addition to this list, other features may be considered to be of importance on the basis of local rarity, where they enable effective conservation of other important features, or play a key functional role in the landscape.

Assigning Level of Importance

6. The importance of an ecological feature should then be considered within a defined geographical context. Based on CIEEM guidance, the following frame of reference is used:
 - International (European);
 - National;
 - Regional;
 - County;
 - District;
 - Local (e.g. Parish or Neighbourhood);
 - Site (not of importance beyond the immediate context of the site).
7. Features of 'local' importance are those considered to be below a district level of importance, but are considered to appreciably enrich the nature conservation resource or are of elevated importance beyond the context of the site.
8. Where features are identified as 'important' based on the list of key sites, habitats and species set out above, but are very limited in extent or quality (in terms of habitat resource or species population) and do not appreciably contribute to the biodiversity interest beyond the context of the site, they are considered to be of 'site' importance.
9. In terms of assigning the level of importance, the following considerations are relevant:

Designated Sites

10. For designated sites, importance should reflect the geographical context of the designation (e.g. SAC/SPA/Ramsar sites are designated at the international level whereas SSSIs are designated at the national level). Consideration should be given to multiple designations as appropriate (where an area is subject to differing levels of nature conservation designations).

Habitats

11. In certain cases, the value of a habitat can be measured against known selection criteria, e.g. SAC selection criteria, 'Guidelines for the selection of biological SSSIs' and the Hedgerows Regulations 1997. However, for the majority of commonly encountered sites, the most relevant habitat evaluation will be at a more localised level and based on relevant factors such as antiquity, size, species-diversity, potential, naturalness, rarity, fragility and typicalness (Ratcliffe, 1977). The ability to restore or re-create the habitat is also an important consideration, for example in the case of ancient woodland.
12. Whether habitats are listed as priorities for conservation at a national level in accordance with Sections 41 and 42 of the Natural Environment and Rural Communities Act (NERC) 2006, so called 'Habitats of Principal Importance' or 'Priority Habitats', or within regional or local Biodiversity Action Plans (BAPs) is also relevant, albeit the listing of a particular habitat under a BAP does not in itself imply any specific level of importance.
13. Habitat inventories (such as habitat mapping on the MAGIC database) or information relating to the status of particular habitats within a district, county or region can also assist in determining the appropriate scale at which a habitat is of importance.

Species

14. Deciding the importance of species populations should make use of existing criteria where available. For example, there are established criteria for defining nationally and internationally important populations of waterfowl. The scale within which importance is determined could also relate to a particular population, e.g. the breeding population of common toads within a suite of ponds or an otter population within a catchment.
15. When determining the importance of a species population, contextual information about distribution and abundance is fundamental, including trends based on historical records. For example, a species could be considered particularly important if it is rare and its population is in decline. With respect to rarity, this can apply across the geographic frame of reference and particular regard is given to populations where the UK holds a large or significant proportion of the international population of a species.
16. Whether species are listed as priorities for conservation at a national level in accordance with Sections 41 and 42 of the Natural Environment and Rural Communities Act (NERC) 2006, so called 'Species of Principal Importance' or 'Priority Species', or within regional or local Biodiversity Action Plans (BAPs) is also relevant, albeit the listing of a particular species under a BAP does not in itself imply any specific level of importance.
17. Species populations should also be considered in terms of the potential zone of influence of the proposals, i.e. if the entire species population within the site and surrounding area were to be affected by the proposed development, would this be of significance at a local, district, county or wider scale? This should also consider the foraging and territory ranges of individual species (e.g. bats roosting some distance from site may forage within site whereas other species such as invertebrates may be more sedentary).

Appendix 5495/3:

Documents to Inform a Habitats Regulations Assessment

Technical Briefing Note

Project: 5495 Land at Lydden, Dover

Technical Briefing Note: Document to Inform a Habitats Regulations Assessment

Date: August 2023

1. Introduction and Background

- 1.1. Aspect Ecology is advising Quinn Estates Ltd. in respect of ecological matters relating to the site Land at Lydden, Dover.
- 1.2. A number of European designations are located within the site surrounds, and as such, the proposed development will need to be subject to a Habitats Regulations Assessment (HRA) under the Conservation of Habitats and Species Regulations 2017 (as amended). On this basis, the following note sets out information to inform a HRA of the proposed development.

2. Legislation

- 2.1. All areas in England classified as Special Areas of Conservation (SACs) or Special Protection Areas (SPAs), collectively known as European sites, receive statutory protection under the Conservation of Habitats and Species Regulations 2017 (the 'Habitats Regulations'). These Regulations transpose into UK legislation the 'Habitats Directive' 1992 (92/43/EEC) and the 'Birds Directive' 2009 (2009/147/EC).
- 2.2. The Regulations impart a duty on Local Planning Authorities (competent authorities) to carefully consider whether any proposals may have a significant effect on a European site, either alone or in combination with other plans or projects. In most circumstances, permission may only be given for a plan or project to proceed if it has been ascertained that it will not have an adverse effect on the integrity of any such designation.

3. Assessment Methodology

- 3.1. The procedure for assessment of projects that are not directly connected with, or necessary to, the management of the designation for conservation is an ordered process following a number of key stages, as set out within the National Planning Policy Framework (NPPF) (revised February 2019)¹ and accompanying ODPM circular 06/2005², whilst further detail is provided by EC guidance relating to the Habitats Directive^{3,4}.

¹ Ministry of Housing, Communities and Local Government (February 2019) *National Planning Policy Framework*

² ODPM Circular 06/2005: Government Circular: Biodiversity and Geological Conservation – Statutory Obligations and their impact within the Planning System (16 August 2005)

³ European Commission (November 2001) *Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC*

⁴ European Commission (April 2000) *Managing Natura 2000 sites: The provisions of Article 6 of the Habitats Directive 92/43/EEC*

Stage 1 – Screening

- 3.2. Under the first stage, it is necessary for the competent authority to examine if the proposals will result in any 'likely significant effect' on the internationally important features of the European site, either alone or in combination with other plans or projects. EC guidance recommends that key indicators should be used to determine the significance of effects.
- 3.3. If it can be objectively concluded that there are not likely to be significant effects on the European site, no further assessment is necessary and permission should not be refused under the assessment.
- 3.4. If any 'likely significant effects' are identified or where it remains unclear whether effects will be significant the assessment procedure should follow on to Stage 2.
- 3.5. Contrary to previous case law in England and Wales, following the recent Court of Justice of the European Union (CJEU) ruling (People over Wind, Peter Sweetman v Coillte Teoranta, Case C-323/17, dated 12 April 2018), measures intended to avoid or reduce the harmful effects of a plan or project on a European site should not be taken into account at this screening stage, and instead these must be considered as part of an Appropriate Assessment (Stage 2).

Stage 2 – Appropriate Assessment

- 3.6. Should it be determined that (in the absence of mitigation/avoidance measures) a plan or project will result in 'likely significant effects' on a European site (or that such effects cannot be ruled out), the competent authority should proceed to the next stage, where further assessment is required.
- 3.7. Under the second stage, it is necessary for the competent authority to determine whether the proposals, either alone or in combination with other projects or plans, will result in any adverse effects on the integrity of the site as defined by the conservation objectives and status of the site. The precautionary principle should be applied, and the focus should be on objectively demonstrating, with supporting evidence, that there will be no adverse effects on the integrity of the European site. Where this is not the case, adverse effects must be assumed.
- 3.8. If it is considered by the competent authority that the proposal will not adversely affect the integrity of the site, permission can be granted. If this cannot be ascertained, or there is uncertainty, the assessment procedure should follow on to Stage 3.

Stage 3 onwards

- 3.9. Under Stages 3 and 4, it is necessary for the competent authority to assess if there are alternative solutions and whether there are imperative reasons of overriding public interest. If these tests are passed, authorisation may be granted subject to compensation measures being secured.

4. Information to Inform a Habitats Regulations Assessment

Details of the plan or project

Site location	The site is located in Lydden, east Kent, within an urban-edge context. The site is located north of Canterbury Road and east of Church Lane and is bounded by residential development and farm buildings to the south east, south and west, whilst pasture fields lie to the north and east.
National grid reference	TR 26292 45514
Site description	The site itself is dominated by a grassland field, with other habitats including boundary treelines and hedgerows, along with a small amount of tall ruderal vegetation and scrub.
Description of the proposals	The proposals are for development of the site to provide a new residential development of 23 units, along with access and landscaping.

Stage 1 – Screening

- 4.1. Information is set out below in relation to likely significant effects on European designations to inform the initial screening stage.

European designations that could be affected by the proposals	<p>Based on a review of the most recent Habitats Regulations Assessment for Dover District: “Dover District Local Plan (Reg 19) Habitats Regulations Assessment” (March 2023) (DDC’s HRA), a number of European designations are to be considered in terms of potential effects:</p> <ul style="list-style-type: none"> • Lydden and Temple Ewell Downs SAC located 190m to the north of the proposed development; • Dover to Kingsdown Cliffs SAC located 7.5km to the east of the proposed development; • Folkestone to Etchinghill Escarpment SAC located 8km to the south west of the proposed development; • Parkgate Down SAC located 8km to the west of the proposed development; • Thanet Coast and Sandwich Bay SPA and Ramsar located 13.3km to the north east of the proposed development; • Sandwich Bay SAC located approximately 13.9 km to the north east of the proposed development; • Thanet Coast SAC located approximately 20.3 km to the north east of the proposed development; • Stodmarsh SAC, SPA and Ramsar located 15.8km to the north of the proposed development; • Wye and Crundale Downs SAC located 17.5km to the west of the proposed development; • Blean Complex SAC located 19.6km to the north west of the proposed development; and • Margate and Long Sands SAC, Tankerton Slopes and Swalecliffe SAC, Outer Thames Estuary SPA, The Swale SPA and Ramsar, Dungeness, Romney Marsh and Rye Bay SPA and Ramsar located more than 20km from the proposed development.
Initial screening of impact pathways	Based on a review of the above document, a number of potential impact pathways have been identified in relation to European designations. Those relevant to the proposed development are largely restricted to physical damage and loss (including functionally linked land), recreational pressure, disturbance (noise, vibration and light), air quality, water quality and water resources.

	DDC's HRA identifies no likely significant effect in relation to Parkgate Down SAC, Stodmarsh SAC, SPA and Ramsar, Wye and Crundale Downs SAC, Tankerton Slopes and Swalecliffe SAC, The Swale SPA and Ramsar and Dungeness, Romney Marsh and Rye Bay SPA and Ramsar. Accordingly these designations will be screened out of this assessment at this point. DDC's HRA identifies potential recreational effects in relation to Thanet Coast SAC, Blean Complex SAC, Margate and Long Sands SAC and Outer Thames Estuary SPA, although given the distance to these designations and small-scale nature of the proposals, they can also be screened out at this stage.
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- 4.2. On this basis, further detail is set out below in relation to relevant European designations and whether a likely significant effect may occur as a result of the proposed development.

Lydden and Temple Ewell Downs SAC

European site interest features	This site is designated on the basis of supporting the Annex I habitat Semi-natural dry grasslands and scrubland facies on calcareous substrates (<i>Festuco-Brometalia</i>) (important orchid sites).
Conservation objectives of the European site	The conservation objectives for the site are to: "Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; <ul style="list-style-type: none"> • The extent and distribution of qualifying natural habitats; • The structure and function (including typical species) of qualifying natural habitats; and • The supporting processes on which qualifying natural habitats rely.
Condition of European site	The most recent condition assessments for the Site of Special Scientific Interest (SSSI) which underpins the European designation states the majority of units are in favourable condition.
Threats	DDC's HRA identifies the following threats or pressures to the integrity of the designation: <ul style="list-style-type: none"> • Recreation; • Disturbance (noise, vibration and light); and • Reduced air quality. <p>Consideration is also given to urbanisation effects, given the close proximity of the proposed development to the SAC.</p>
Screening of likely significant effects	
Recreation	DDC's HRA states that recreational pressure requires consideration in relation to this designation, particularly in relation to trampling vegetation, removal of orchid species, vandalism or fire and nutrient enrichment.
Disturbance (noise, vibration and light)	Disturbance effects are considered to occur up to 500m from proposed developments, although are mostly in relation to animal and bird species. Given the SAC is designated for habitats only, disturbance effects are unlikely to occur.
Reduced air quality	DDC's HRA highlights the risk of air pollution to the designation associated with additional traffic associated with the A2 between the Duke of York Roundabout and Lydden Hill.
Urbanisation	Whilst it is acknowledged that a small part of the site is located within 200m of the designation, the site is separated from the SAC by Church Lane and existing development, which are considered to form barriers to the effects of urbanisation that could reasonably be anticipated. These barriers also mean that the shortest route to reach this

	designation is over 200m in length. As such urbanisation is not considered relevant for the purposes of this assessment.
Conclusion – is the potential scale or magnitude of any effect likely to be significant?	
Alone	
No. Given the small scale of the proposals, it is considered that alone any effects from recreation, urbanisation and air pollution would be small enough so as to have no significant effect on this designation.	
In combination with other plans or projects	
<i>Recreation</i>	
No. DDC's HRA includes an assessment of in-combination increases in visitors arising from development under the Local Plan, and concludes that given the nature of the site, with visitors tending to follow specific routes, active management of the site by Kent Wildlife Trust and much of the SAC being located on steep slopes which are unsuitable for access, together with strategic mitigation being implemented in the form of new open space provision and updated monitoring surveys, an adverse effect on integrity would be avoided. The additional population increase arising from the proposed development would be negligible, and is therefore not considered to result in a significant effect in-combination. Furthermore, given the rural setting of the site, with a network of footpaths in the surrounds allowing access from the development site to open countryside including substantial blocks of woodland, it is considered that ample alternative greenspace is available to residents of the proposed development.	
<i>Reduced air quality</i>	
No. DDC's HRA includes a detailed assessment of air quality in relation to the SAC. This identifies a small number of ecological receptor locations where a negative process contribution would occur under the Local Plan, although this was less than 1% of the minimum critical load. Accordingly, no adverse effect on integrity would occur. Given the small-scale of the proposals, resulting in a negligible increase in traffic relative to existing levels, it is considered that there would be no likely significant effect in-combination with the Local Plan and other developments.	

Dover to Kingsdown Cliffs SAC

European site interest features	The SAC is designated on the basis of supporting the Annex I habitat Vegetated sea cliffs of the Atlantic and Baltic Coasts. In addition the Annex I habitat Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites) is also present although is not a primary reason for designation.
Conservation objectives of the European site	The conservation objectives for the SAC are to: "Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring; <ul style="list-style-type: none"> • The extent and distribution of qualifying natural habitats; • The structure and function (including typical species) of qualifying natural habitats; and • The supporting processes on which qualifying natural habitats rely."
Condition of European site	The most recent condition assessments for the Site of Special Scientific Interest (SSSI) which underpins the European designation states the majority of units are in favourable condition.
Threats	The Habitats Regulations Assessment-Core Strategy Submission, produced by Dover District Council identifies the following threats or pressures to the integrity of the designation: <ul style="list-style-type: none"> • Recreational pressure; and

	<ul style="list-style-type: none"> Air quality.
Screening of likely significant effects	
Recreational pressure	DDC's HRA states that recreational pressure is an issue for this designation, particularly in relation to trampling vegetation and dog fouling.
Air quality	DDC's HRA highlights the risk of air pollution to the designation associated with additional traffic associated with the A2 close to Dover.
Conclusion – is the potential scale or magnitude of any effect likely to be significant?	
Alone	
No. it is considered that the small scale of the proposals, and large distance from the site mean that any increase in recreational pressure and air quality in isolation would be negligible.	
In combination with other plans or projects	
<p>No. DDC's HRA includes a detailed assessment of air quality in relation to the SAC. This identifies a small number of ecological receptor locations where a negative process contribution would occur under the Local Plan, although this was less than 1% of the minimum critical load. Accordingly, no adverse effect on integrity would occur. Given the small-scale of the proposals, resulting in a negligible increase in traffic relative to existing levels, it is considered that there would be no likely significant effect in-combination with the Local Plan and other developments.</p> <p>In regard to recreational pressure, DDC's HRA sets out that the SAC is managed by the National Trust in consultation with Natural England, whilst visitors are generally concentrated in particular locations due to part of the SAC lying on a cliff edge. The National Trust have committed to an extensive programme of onsite visitor management and mitigation measures, following which it is concluded an adverse effect on integrity would be avoided. The additional population increase arising from the proposed development would be negligible, and is therefore not considered to result in a significant effect in-combination. Furthermore, given the rural setting of the site, with a network of footpaths in the surrounds allowing access from the development site to open countryside including substantial blocks of woodland, it is considered that ample alternative greenspace is available to residents of the proposed development.</p>	

Folkestone to Etchinghill Escarpment SAC

European site interest features	This site is designated on the basis of supporting the Annex I habitat Semi-natural dry grasslands and scrubland facies on calcareous substrates (Festuco-Brometalia) (* important orchid sites).
Conservation objectives of the European site	<p>The conservation objectives for the site are to: "Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring:</p> <ul style="list-style-type: none"> The extent and distribution of qualifying natural habitats; The structure and function (including typical species) of qualifying natural habitats; and The supporting processes on which qualifying natural habitats rely."
Condition of European site	The most recent condition assessments for the SSSI which underpins the European designation states the unit overlapping with the SAC is in favourable condition.
Threats	<p>DDC's HRA identifies the following threats or pressures to the integrity of the designation:</p> <ul style="list-style-type: none"> Recreational pressure; Air quality.
Screening of likely significant effects	

Recreational pressure	Residential development could result in detrimental effects from recreational disturbance, specifically as a result of trampling and dog fouling. However, the proposed development lies outside the 4km zone of influence identified under DDC's HRA, and is therefore unlikely to contribute to recreational pressure.
Air Quality	DDC's HRA highlights the risk of air pollution to the designation associated with additional traffic associated with the A20 which is located within 200m of the site.
Conclusion – is the potential scale or magnitude of any effect likely to be significant?	
Alone	
No. it is considered that the small scale of the proposals, and large distance from the site mean that any increase in recreational pressure and air quality in isolation would be negligible.	
In combination with other plans or projects	
No. The proposed development is not considered to contribute to recreational impacts as it lies outside of the identified 4km zone of influence set out under DDC's HRA.	
In regard to air quality, DDC's HRA references the air quality assessment undertaken as part of the Folkestone and Hythe Core Strategy Review Local Plan, which took into account in-combination air quality effects from neighbouring authorities. This concludes that despite elevated NOx concentrations, there would be no likely significant effect due to the forecast deposition rate being below the relevant critical load and only small retardation resulting from the Local Plan. Accordingly, no adverse effect on integrity would occur. Given the small-scale of the proposals, resulting in a negligible increase in traffic relative to existing levels, it is considered that there would be no likely significant effect in-combination with the Local Plan and other developments.	

Thanet Coast and Sandwich Bay SPA and Ramsar, and Sandwich Bay SAC

European site interest features	<p>In respect of the SPA, Thanet Coast and Sandwich Bay is designated on the basis of overwintering populations of the Annex I species Turnstone <i>Arenaria interpres</i>.</p> <p>In respect of the Ramsar designation, the site qualifies under Ramsar criterion 2 (notable invertebrate species) and 6 (important populations of Ruddy Turnstone <i>Arenaria interpres interpres</i>).</p> <p>In respect of Sandwich Bay SAC, the site is designated on the basis of supporting the Annex I habitats Embryonic shifting dunes, shifting dunes along the shoreline with <i>Ammophila arenaria</i> ("white dunes"), fixed coastal dunes with herbaceous vegetation ("grey dunes") and Dunes with <i>Salix repens ssp. argentea</i> (<i>Salicion arenariae</i>)</p>
Conservation objectives of the European site	<p>The conservation objectives for the SPA are to: "Ensure that the integrity of the site is maintained or restored as appropriate, and ensure that the site contributes to achieving the aims of the Wild Birds Directive, by maintaining or restoring;</p> <ul style="list-style-type: none"> • The extent and distribution of the habitats of the qualifying features; • The structure and function of the habitats of the qualifying features; • The supporting processes on which the habitats of the qualifying features rely; • The population of each of the qualifying features; and, • The distribution of the qualifying features within the site." <p>The conservation objectives for Sandwich Bay SAC are to: "Ensure that the integrity of the site is maintained or restored as appropriate, and</p>

	<p>ensure that the site contributes to achieving the Favourable Conservation Status of its Qualifying Features, by maintaining or restoring;</p> <ul style="list-style-type: none"> • The extent and distribution of qualifying natural habitats; • The structure and function (including typical species) of qualifying natural habitats; and • The supporting processes on which qualifying natural habitats rely.”
Condition of European site	The most recent condition assessments for the SSSI units which underpin the European designations states the majority of the units, including all of those nearest the site, are in favourable condition.
Threats	<p>DDC’s HRA identifies the following threats or pressures to the integrity of the designation:</p> <ul style="list-style-type: none"> • Physical damage and loss (including functionally linked land); • Recreational pressure; • Air quality; and • Water quality and water resources.
Screening of likely significant effects	
Physical damage and loss (including functionally linked land)	DDC’s HRA highlights potential for loss of habitat used by bird species of interest and forming functionally linked land for the SPA/Ramsar. However, the site lies outside of the 5km zone of influence identified under DDC’s HRA, and would therefore not result in loss of such habitat.
Recreational pressure	DDC’s HRA highlights the potential for recreational pressure on these designations, potentially resulting in dune erosion, physical damage to marine habitats, dog fouling and bird disturbance. However, the proposed development lies outside the 9km zone of influence identified under DDC’s HRA, and is therefore unlikely to contribute to recreational pressure.
Air quality	DDC’s HRA highlights the risk of air pollution to the designation associated with additional traffic associated with the A259 and A258 which are located within 200m of the site.
Water quality and water resources	Coastal and estuarine habitats are susceptible to changes in water quality and quantity as a result of increased demand for water abstraction and treatment which could impact on interest features.
Conclusion – is the potential scale or magnitude of any effect likely to be significant?	
Alone	
No. The site is far removed from the designations, whilst the small scale of the proposals mean that any changes in air quality or water abstraction would be negligible when considered alone.	
In combination with other plans or projects	
<i>Water Resources</i>	
Yes. In terms of water abstraction, it appears that in the absence of mitigation the proposals could be considered to result in an in-combination negative effect, and as such this will be taken into account within the appropriate assessment.	
<i>Other Effects</i>	
No. The proposed development lies outside of the identified zones of influence in relation to functionally linked land and recreational pressure, whilst there would be no direct connectivity in terms of water quality effects. DDC’s HRA includes a detailed assessment of air quality in relation to the designations. This identifies a small number of ecological receptor locations where a negative process contribution would occur under the Local Plan, although this is less than 1% of the minimum critical load. Accordingly, no adverse effect on integrity would occur. Given the small-scale of the proposals,	

resulting in a negligible increase in traffic relative to existing levels, it is considered that there would be no likely significant effect in-combination with the Local Plan and other developments.

Conclusion

Conclusion – in the absence of mitigation, are the proposals likely to have a significant effect on a European designation?

Yes, in relation to in-combination effects resulting from water abstraction at:

- Sandwich Bay SAC and Thanet Coast and Sandwich Bay SPA and Ramsar

An Appropriate Assessment is therefore required.

Stage 2 – Appropriate Assessment

- 4.3. An assessment of effects on integrity in view of the European site's conservation objectives is set out below, to inform an Appropriate Assessment of the proposals.

Sandwich Bay SAC, Thanet Coast and Sandwich Bay SPA and Ramsar

Do the proposals, in-combination with other relevant plans and projects have the potential to affect the integrity of the European designation, given the sites' conservation objectives?

Water Resources

Yes. Effects from water abstraction have been highlighted as potentially causing detrimental effects on these designations, particularly in relation to low tides.

Proposed avoidance and/or mitigation measures

Water efficiency

In order to prevent unsustainable levels of water abstraction, in line with DDC's HRA, the proposed development will be designed and implemented to meet the higher water efficiency standard under Regulation 36(3) of the Building Regulations, to achieve a maximum use of 110 litres per person per day.

Conclusion – with the implementation of mitigation, will the proposals in-combination with other plans or projects result in an adverse effect on integrity of a European designation?

No. As set out in DDC's HRA, the implementation of mitigation would reduce the likely effects to a level which would not affect the integrity of Sandwich Bay SAC and Thanet Coast and Sandwich Bay SPA and Ramsar, and this has been adopted into local policy. It is considered that the proposed mitigation set out above, in view of the designation's conservation objectives, is appropriate and proportional given the size of the proposed development and the distance of the site to these designations.

Therefore it is considered that no further assessment is required and proceeding to Stage 3 is not necessary.

5. Conclusion

- 5.1. This note provides information to inform an HRA of the proposed development by the competent authority, given the presence of a number of European designations within the site surrounds.
- 5.2. A screening exercise has been undertaken to identify whether the proposed development could result in a likely significant effect on European designations, both alone and in-combination with other plans and projects (Stage 1). The screening exercise has concluded that in the absence of mitigation, likely significant effects are predicted in relation to in-combination effects resulting from water abstraction at Sandwich Bay SAC and Thanet Coast and Sandwich Bay SPA and Ramsar. Therefore an Appropriate Assessment is required.

-
- 5.3. The assessment of effects on integrity to inform an Appropriate Assessment (Stage 2) has concluded that, in view of the designations' conservation objectives, following the implementation of mitigation measures (in the form of water efficiency measures in line with Building Regulations standards), the proposed development would have no effect on the integrity of the surrounding European designations either alone or in-combination with other plans and projects.

Appendix 5495/4:

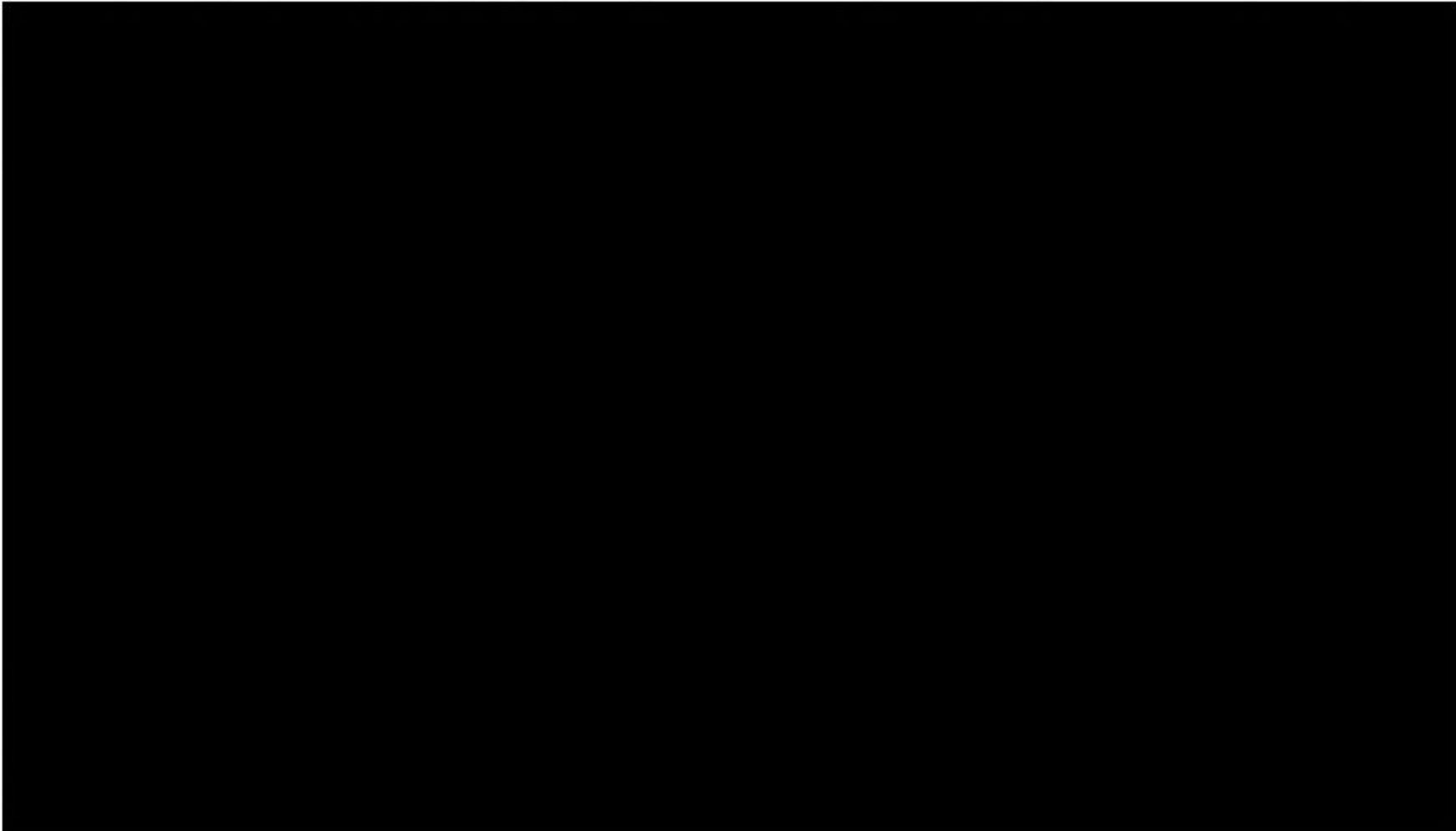
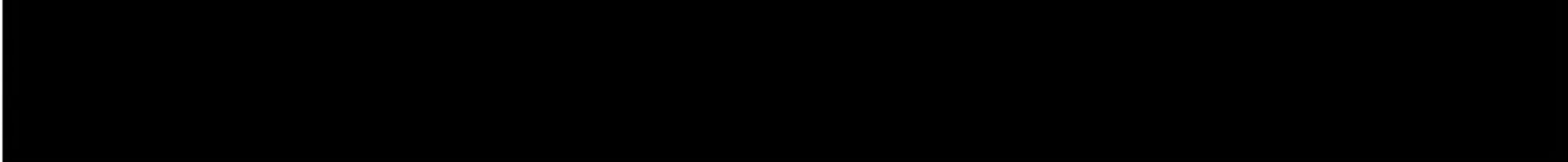
Legislation Summary

LEGISLATION SUMMARY

1. In England and Wales primary legislation is made by the UK Parliament, and in Scotland by the Scottish Parliament, in the form of Acts. The main piece of legislation relating to nature conservation in the UK is the Wildlife and Countryside Act 1981 (as amended).
2. Acts of Parliament confer powers on Ministers to make more detailed orders, rules or regulations by means of secondary legislation in the form of statutory instruments. Statutory instruments are used to provide the necessary detail that would be too complex to include in an Act itself¹. The provisions of an Act of Parliament can also be enforced, amended or updated by secondary legislation.
3. In summary, the key pieces of legislation relating to nature conservation in the UK are:
 - Wildlife and Countryside Act 1981 (as amended)
 - [REDACTED]
 - Hedgerows Regulations 1997
 - Countryside and Rights of Way (CROW) Act for England and Wales 2000
 - Natural Environment and Rural Communities Act 2006
 - Conservation of Habitats and Species Regulations 2017
4. A brief summary of the relevant legislation is provided below. The original Acts and instruments should be referred to for the full and most up to date text of the legislation.
5. **Wildlife and Countryside Act 1981 (as amended)**. The WCA Act provides for the notification and confirmation of Sites of Special Scientific Interest (SSSIs) identified for their flora, fauna, geological or physiographical features. The Act contains strict measures for the protection and management of SSSIs.
6. The Act also refers to the treatment of UK wildlife including protected species listed under Schedules 1 (birds), 5 (mammals, herpetofauna, fish, invertebrates) and 8 (plants).
7. Under Section 1(1) of the Act, all wild birds are protected such that it is an offence to intentionally:
 - Kill, injure or take any wild bird;
 - Take, damage or destroy the nest of any wild bird whilst in use* or being built;
 - Take or destroy an egg of any wild bird.

* The nests of birds that re-use their nests as listed under Schedule ZA1, e.g. Golden Eagle, are protected against taking, damage or destruction irrespective of whether they are in use or not.
8. Offences in respect of Schedule 1 birds are subject to special, i.e. higher, penalties. Schedule 1 birds also receive greater protection such that it is an offence to intentionally or recklessly:
 - Disturb any wild bird included in Schedule 1 while it is building a nest or while it is in, on or near a nest containing eggs or young;
 - Disturb dependent young of such a bird.

¹ <http://www.parliament.uk/business/bills-and-legislation/secondary-legislation/statutory-instruments/>

9. Under Section 9(1) of the Act, it is an offence to:
 - Intentionally kill, injure or take any wild animal included in Schedule 5.
10. In addition, under Section 9(4) it is an offence to intentionally or recklessly:
 - Obstruct access to, any structure or place which any wild animal included in Schedule 5 uses for shelter or protection; or
 - Disturb any wild animal included in Schedule 5 while occupying a structure or place which it uses for that purpose.
11. Under Section 13(1) it is an offence:
 - To intentionally pick, uproot or destroy any wild plant listed in Schedule 8; or
 - Unless the authorised person, to intentionally uproot any wild plant not included in Schedule 8.
12. The Act also contains measures (S.14) for preventing the establishment of non-native species that may be detrimental to native wildlife, prohibiting the introduction into the wild of animals (releases or allows to escape) and plants (plants or causes to grow) listed under Schedule 9.
13. 
14. 
15. **Hedgerows Regulations 1997.** 'Important' hedgerows (as defined by the Regulations) are protected from removal (up-rooting or otherwise destroying). Various criteria specified in the Regulations are employed to identify 'important' hedgerows for wildlife, landscape or historical reasons.
16. **Countryside and Rights of Way (CROW) Act for England and Wales 2000.** The CROW Act provides increased measures for the management and protection of SSSIs and strengthens wildlife enforcement legislation. Schedule 12 of the Act amends the species provisions of the WCA 1981, strengthening the legal protection for threatened species. The Act also introduced a duty on Government to have regard to the conservation of biodiversity and maintain lists of species and habitats for which conservation steps should be taken or promoted, in accordance with the Convention on Biological Diversity.

17. **Natural Environment and Rural Communities Act 2006.** Section 41 of the NERC Act requires the Secretary of State to publish a list of habitats and species that are of principal importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as local planning authorities, in implementing their duty under Section 40 of the Act, to have regard to the conservation of biodiversity in England, when exercising their normal functions. 56 habitats and 943 species of principal importance are included on the S41 list. These are all the habitats and species in England that were identified as requiring action in the UK Biodiversity Action Plan (BAP).
18. **Conservation of Habitats and Species Regulations 2017 (as amended).** The Regulations enact the European Union's Habitats Directive (92/43/EEC) in the UK. The Habitats Directive was designed to contribute to the maintenance of biodiversity within member states through the conservation of sites, known in the UK as Special Areas of Conservation (SACs), containing habitats and species selected as being of EC importance (as listed in Annexes I and II of the Habitats Directive respectively). Member states are required to take measures to maintain or restore these natural and semi-natural habitats and wild species at a favourable conservation status.
19. The Regulations also require the compilation and maintenance of a register of European sites, to include SACs and Special Protection Areas (SPAs)² classified under Council Directive 79/409/EEC on the Conservation of Wild Birds (the Birds Directive). These sites constitute the Natura 2000 network. The Regulations impose restrictions on planning decisions likely to significantly affect SPAs or SACs.
20. The Regulations also provide protection to European Protected Species of animals that largely overlaps with the WCA 1981, albeit the provisions are generally stricter. Under Regulation 43 it is an offence, *inter alia*, to:
 - Deliberately capture, injure or kill any wild animal of a European Protected Species;
 - Deliberately disturb any wild animals of any such species, including in particular any disturbance likely to impair their ability to survive, to breed or reproduce, to rear or nurture their young, to hibernate or migrate, or which is likely to affect significantly their local distribution or abundance;
 - Deliberately take or destroy the eggs of such an animal;
 - Damage or destroy a breeding site or resting place of such an animal.
21. Similar protection is afforded to European Protected Species of plants, as detailed under Regulation 47.
22. The Regulations do provide a licensing system that permits otherwise illegal activities in relation to European Protected Species, subject to certain tests being fulfilled.

² Special Protection Areas (SPAs) are protected sites classified in accordance with Article 4 of the EC Directive on the Conservation of Wild Birds (79/409/EEC) (aka the Birds Directive), which came into force in April 1979. SPAs are classified for rare and vulnerable birds (as listed on Annex I of the Directive), and for regularly occurring migratory species.

Appendix 5495/5:

Greenspace Ecological Solutions, Wintering Bird Surveys, May
2023

Land at Church Lane

Wintering Bird Surveys

A report for Quinn Estates

May 2023



**Greenspace
Ecological
Solutions**

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Land at Church Lane,
Lydden, Kent,
CT15 7JP

Wintering Bird Surveys

Client:	Quinn Estates	
Project Ref:	Land at Church Lane	
Report Ref:	J21239	
Author:	Technical Review:	Approved:
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Revision Ref:	Status/ Comment:	Date of Issue:
-	Issued	4th May 2023
Disclosure:		
<p>Greenspace Ecological Solutions Ltd has prepared this report for the sole use of the commissioning client. The information has been prepared and provided in accordance with the CIEEM's Code of Professional Conduct but does not constitute legal advice. This report may not be relied upon by any other party except the person, company, agent or any third party for whom the report is intended without the prior written permission of Greenspace Ecological Solutions Ltd. Information obtained from any third party has not been independently verified unless otherwise stated in the report. This report is the copyright of Greenspace Ecological Solutions Ltd. Unauthorised reproduction or usage by any person is prohibited.</p> <p>It should be noted that whilst every effort has been made to meet the client's requirements, no site survey can ensure a complete assessment or prediction of the changeable onsite environment.</p> <p><u>Should more than 12 months elapse between the date of this survey and any subsequent development, it may be necessary to consider the need for an update survey to be undertaken.</u></p>		

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APPENDICES

Appendix A	Legislation and Planning Policy
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1 PROJECT OVERVIEW

Client: Quinn Estates

Site Address: Church Lane, Lydden, Kent, CT15 7JP

Lead Ornithologist: Martin Rann ACIEEM

Survey Period: December 2022 – February 2023

Site Proposals: Residential development with associated landscaping and infrastructure.

Associated Planning
Reference Number: Not yet submitted.

Source of Relevant Documents:

Document:	Source:
Site Location Plan:	Google Earth Pro
Site Plans:	Under development
Desk Study	Magic.gov.uk

2 NON-TECHNICAL SUMMARY

- 2.1 In response to the proposed development at Land at Church Lane, Lydden ('the Site'), a wintering bird survey of land within the redline boundary has been undertaken.
- 2.2 The Site occupies approximately 1.9 hectares (ha) and comprises grassland, scrub, hedgerows and tree lines.
- 2.3 The Site was subject to four walked transect surveys on the 1st December and 20th December 2022, and 13th January and 21st February 2023.
- 2.4 During each survey, observations of bird species by sight and sound (location and behaviour) within and around the Site, were noted and recorded on a map using standard BTO species and activity recording codes.
- 2.5 A total of 15 species were recorded within and immediately adjacent to the Site.
- 2.6 Of the species recorded, 4 are considered 'Notable', either appearing on the Birds of Conservation Concern 5 (BoCC 5) Red or Amber Lists or species listed as priority under S41 of the NERC Act.
- 2.7 Consequently, as no significant populations of wintering birds have been recorded on site, and the majority of species recorded are common and widespread within the county, the nature conservation value of the wintering bird assemblage within the Site is considered of 'Site' value and one that is restricted to species associated with grassland, scrub, hedgerows, scattered trees, tree lines and arable habitats.
- 2.8 To ensure the Site's suitability for wintering birds is maintained post development, the development proposals should ensure the recommendations within section 6.3 are included within the associated ecological and landscape strategy for the Site.
- 2.9 In accordance with the requirement of the National Planning Policy Framework (NPPF) 2021, recommendations to enhance the Site's suitability for wildlife have been provided.
- 2.10 Provided the enhancements and biodiversity features and measures are implemented and maintained in full, then development of the Site will result in no significant direct or indirect impact on wintering birds within the Site, or within the wider landscape.

3 INTRODUCTION

3.1 Context

- 3.1.1 In October 2022, Greenspace Ecological Solutions (GES) was appointed by Quinn Estates, to carry out wintering bird surveys of land proposed for development at Church Lane, Lydden (hereafter referred to as the 'Site'). This report sets out the results of four wintering bird surveys carried out at the above Site in December 2022, January 2023 and February 2023, along with an assessment of the wintering bird assemblage, and appropriate recommendations for mitigation and enhancement.

3.2 Site Location

- 3.2.1 The Site is located at Church Lane, Lydden, Kent, CT15 7JP, at National Grid Reference TR 26307 45517.



Image 1 - Site Location of Land at Church Lane.

3.3 Site Description

- 3.3.1 The Site is located south of Church Lane in the village of Lydden, Kent. The Site comprises a single grassland field which is infrequently grazed and was used as material and machine storage at the time of survey. The Site is bordered to the south, south-east and west by residential and commercial properties, and a farm with associated buildings and agricultural fields to the north and east.

- 3.3.2 The wider landscape comprises the village of Lydden to the east, with agricultural land and scattered rural residential properties to the north, south and west. Areas of woodland are scattered within the wider landscape with an interconnecting network of hedgerows also present.

3.4 Legislation and Planning Policy

Key legislation for birds in the UK is:

- [The Wildlife and Countryside Act 1981 \(as amended\)](#)

- 3.4.1 Part 1 of the WCA sets out how the provisions of the Convention on the Conservation of European Wildlife and Natural Habitats (the 'Bern Convention'), the EC Birds Directive and the EC Habitats Directive are implemented in Great Britain. Under Part 1, Section 1 of the WCA it is an offence to:

- Kill, injure or take any wild bird intentionally;
- Take, damage or destroy the nest of any wild bird while that nest is in use or being built; and;
- Take or destroy the egg(s) of any wild bird.

- 3.4.2 Schedule 1 of the WCA lists a number of species which, in addition to the provisions listed above, are protected by special penalties at all times, including against disturbance when breeding.

- 3.4.1 Other relevant legislation and policies that apply to ecological issues within England and Wales are:

- [The Conservation of Habitats and Species Regulations 2017 \(as amended\)](#)
- [The Countryside Rights of Way Act 2000](#)
- [The Environment Act 2021](#)
- [The Natural Environment and Rural Communities \(NERC\) Act 2006](#)
- [Hedgerows Regulations Act 1997](#)
- [The Protection of Badgers Act 1992](#)
- [The Wild Mammal \(Protection\) Act 1996](#)
- [National Planning Policy Framework \(NPPF\) 2021](#)
- [Government Circular 06/05](#)
- [Policy DM 15 of the Dover District Local Development Framework Core Strategy](#)

- 3.4.2 The above summary serves as guidance only. Further information is presented in Appendix A.

3.5 Objectives of the Survey

3.5.1 The objectives of the survey were to:

- Record and map evidence of wintering bird activity.
- Make an ecological assessment of the value of the Site to wintering birds.
- Highlight any potential ecological constraints related to wintering birds.
- Outline further survey work that may be required.
- Make suggestions for mitigation, compensation and enhancement of the natural features identified within the Site with respect to the wintering bird assemblage.

3.6 Survey Constraints

3.6.1 There is potential for some birds to be under-recorded due to the nature of wintering bird surveys and possibility of birds not vocalising and/or being present in dense vegetation. This is a widely recognised constraint. However, the majority of the Site's suitable habitat for birds was accessible, and this did not affect the assessment of wintering bird assemblage.

3.6.2 Due to the timing of the commission of survey work, a late autumn (November 2022) survey was not carried out. However, a survey was conducted on 1st of December 2022, with a second survey visit carried out in late December 2022. Given the overall results of the wintering bird survey this is not considered to have significantly affected the outcome of the survey.

3.6.3 There were no other constraints to the survey.

4 SURVEY METHODS

4.1 Desk Study

4.1.1 A desk study was undertaken to determine the presence of designated sites within a 5km radius of the Site. A full desk study was carried out as part of the Preliminary Ecological Appraisal, and is reported separately.

4.1.2 The following bodies were consulted for the desk study:

- Multi-Agency Geographic Information for the Countryside (MAGIC)¹

4.2 Wintering Birds

4.2.1 Land within and immediately adjacent to the Site was assessed in terms of its suitability to support notable assemblages of birds during the winter months, including any species that are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and the RSPB Birds of Conservation Concern 5 (BoCC5) Red and Amber Lists. In this instance, wintering bird surveys were undertaken between December 2022 and February 2023.

4.2.2 The survey method was based on the English Winter Bird Survey (EWBS) (British Trust for Ornithology, 2018) and Bird Survey Guidelines (Gilbert et al., 1998), as outlined below:

- Walked transect surveys of the Site were carried out following the route depicted in Figure 1 on the 1st December and 20th December 2022, and 13th January and 21st February 2023.
- During each survey, observations of bird species by sight and sound (location and behaviour) within and around the Site, were noted and recorded on a map using standard BTO species and activity recording codes.
- To cover the period of greatest activity for most bird species, the surveys started one hour after sunrise and lasted for approximately 1 hour. All transects were undertaken in suitable weather conditions.

4.2.3 Recording equipment included binoculars (8x40) and telescopes (20-40x) as considered appropriate by the appointed surveyor. During the surveys, bird species observed on land immediately adjacent to the survey area or flying over the Site were also recorded. However, in line with survey guidance, they were not included in the winter bird assemblage assessment unless it was considered that they were moving between different parts of the Site.

¹ Available at [MAGIC \(defra.gov.uk\)](https://defra.gov.uk/magic)

4.2.4 Details of the surveys, including weather conditions are provided in Table 1, below.

Table 1 – Wintering bird survey dates & conditions

Date	Survey Start	Survey End	Start Weather Conditions	Surveyors
01.12.22	08:38	08:57	Good visibility, 100% cloud cover, 6°C, no wind and light rain.	Martin Rann
20.12.22	08:57	09:27	Good visibility, 100% cloud cover, 11°C, light breeze and no rain.	Martin Rann
13.01.23	09:00	09:30	Good visibility, 0% cloud cover, 7°C, light breeze and no rain	Martin Rann
21.02.23	08:10	09:10	Good visibility, 100% cloud cover, 7°C, no wind and no rain	Martin Rann

Conservation Status of Birds

4.2.1 The RSPB and Eaton et al. (2021) have published lists of Birds of Conservation Concern 5 (BoCC5). Red List species are those whose breeding population or range is rapidly declining (50% or more in the last 25 years), recently or historically, and those of global conservation concern. Amber List species are those whose breeding population is in moderate decline (25 – 49% in the last 25 years), rare breeders, internationally important and localised species and those of unfavourable conservation status in Europe.

4.2.2 These lists confer no legal status; however, they are useful when assessing the significance of predicted impacts and determining the level of mitigation that may be required when birds are affected by development or any other activity.

Assessment of Winter Bird Assemblage

4.2.5 The conservation value of bird populations has been measured using two separate approaches: nature conservation value and conservation status. The CIEEM guidance (CIEEM, 2016) on ecological impact assessment assesses nature conservation value within a geographical context. To attain each level of value, an ornithological resource or one of the features (species population or assemblage of species) should meet the criteria set out below. In some cases, professional judgement may be required to increase or decrease the allocation of specific value, based upon local knowledge.

- **International** - A species which is part of the cited interest of an SPA and which regularly occurs in internationally or nationally important numbers. A species present in internationally important numbers (>1% of international population).
- **National** - A species which is part of the cited interest of a SSSI and which regularly occurs in nationally or regionally important numbers. A nationally important assemblage of

breeding or over-wintering species. A species present in nationally important numbers (>1% UK population). Rare breeding species (<300 breeding pairs in the UK).

- **Regional** - Species listed as priority species under S41 of NERC Act, which are not covered above, and which regularly occurs in regionally important numbers. Species present in regionally important numbers (>1% of regional population – South East England). Sustainable populations of species that are rare or scarce within a region. Species on the BoCC Red List and which regularly occurs in regionally important numbers.
- **County** - Species listed as priority species under S41 of NERC Act, which are not covered above, and which regularly occurs in county important numbers. Species present in county important numbers (>1% of county population – Kent). Sustainable populations of species that are rare or scarce within a county, or listed in the Kent Red Data Book (KRDB). A site designated for its county important assemblage of birds (e.g. a SINC Site). Species on the BoCC Red List and which regularly occur in county important numbers.
- **District** - Species listed as priority under S41 of NERC Act, which are not covered above, and are rare in the locality or in the relevant Natural Area profile. Species present in numbers just short of county importance (>1% of county population – Kent). Sustainable populations of species that are rare or scarce within the locality. A site whose designation falls just short for inclusion for its county important assemblage of birds (e.g. a SNCI Site). Other species on the BoCC Red List and which are considered to regularly occur in district important numbers.
- **Local** - Other species of conservation interest (e.g. all other species on the BoCC Red and Amber List and Species under S41 of NERC Act which are not covered above) regularly occurring in locally sustainable populations.
- **Site** – All other Green listed Common and widespread species, or species of conservation interest which are not regularly occurring.

5 SURVEY RESULTS

5.1 Desk Study

Statutory Designated Sites

- 5.1.1 There are six statutory designated sites located within 5km of the Site. The distance of the designated sites from the Site and reason for designation are listed below in Table 2.

Table 2 – Statutory Designated Sites within 5km of the Site.

Site Name	Description	Distance and Orientation from Site
Statutory Designated Sites		
Internationally Designated Sites (SPA, SAC, Ramsar)		
Lydden and Temple Ewell Downs SAC	<p><i>“This site includes some of the richest chalk grassland in Kent, with outstanding assemblages of plants and invertebrates. Most of the grassland is situated on the steep south-west facing slopes on the thinnest soils and is dominated by tor-grass <i>Brachypodium pinnatum</i>, sheep’s-fescue <i>Festuca ovina</i>, creeping bent <i>Agrostis stolonifera</i>, and upright brome <i>Bromopsis erecta</i>. Grazing pressure varies over the length of the site, resulting in a gradation within the habitat from a rank tor-grass sward to close-cropped fescue grassland. The history of continued grazing on this site has resulted in the retention of many characteristic downland herbs such as squinancywort <i>Asperula cynanchica</i>, horseshoe vetch <i>Hippocrepis comosa</i>, chalk milkwort <i>Polygala calcarea</i> and fragrant orchid <i>Gymnadenia conopsea</i>. It contains an important assemblage of rare, scarce and uncommon species, including early spider-orchid <i>Ophrys sphegodes</i>, burnt orchid <i>Orchis ustulata</i>, musk orchid <i>Herminium monorchis</i> and autumn lady’s-tresses <i>Spiranthes spiralis</i>.</i></p> <p><i>Qualifying habitats: The site is designated under article 4(4) of the Directive (92/43/EEC) as it hosts the following habitats listed in Annex I:</i></p> <p><i>Semi-natural dry grasslands and scrubland facies: on calcareous substrates (Festuco-Brometalia) (important orchid sites). (Dry grasslands and scrublands on chalk or limestone, including important orchid sites)”</i></p>	0.2km NW
Nationally Designated Sites (SSSI, LNR, NNR)		
Lydden and Temple Ewell Downs SSSI	<p><i>“This site includes some of the richest chalk grassland in Kent, with outstanding assemblages of plants and invertebrates. Four insects, a snail and one of the plants occurring here are all listed as having become so rare in Great Britain that they are now afforded special protection under the 1981 Act. Areas of scrub and woodland add to the site’s interest.</i></p>	0.2km NW

	<i>The dense scrub and woodland provides further habitats for different invertebrate communities and offers shelter for mammals and nesting birds. Linnet and yellowhammer breed here, and there [REDACTED]</i>	
Alkham, Lydden and Swingfield Woods SSSI	<i>"This site comprises several woodlands situated on the steep slopes of dry chalk valleys. The soils vary from calcareous loams on the slopes to acid-neutral clays on the plateaux. Ash-hazel is the main woodland type with field maple on the more calcareous soils and hornbeam on the heavier clay. There is some unimproved chalk grassland in the site near Lydden. A number of uncommon plants occur including lady orchid <i>Orchis purpurea</i> in the woods and burnt orchid <i>Orchis ustulata</i> in the grassland."</i>	0.04km S
Lydden Temple Ewell NNR	<i>"The slopes have an abundance of native chalk plants, including many orchid species. The rare Burnt (formerly Burnt-tip) orchid has been seen here. The site hosts the Great Green Bush-cricket; but also has the Wartbiter Cricket, a much rarer, flightless, and thumb-sized insect.</i> <i>A fine variety of butterflies can be seen here including the Chalkhill Blue and Adonis Blue. It is also the breeding habitat for the rare Silver-spotted Skipper.</i> <i>Yellowhammers and linnets breed in the scrub. Common buzzards and Northern Ravens summer locally, and Red Kites are occasionally recorded."</i>	0.4km NE
Whinless Down LNR	<i>"Whinless Down Nature Reserve is home to a rich variety of wildlife, and has some great views of Dover Castle. Several rare plant and invertebrate species can be found on the site. Rare plants found at Whinless Down are Cypress spurge, Horseshoe vetch and Crown vetch, you can also find the rare butterflies and moths Adonis blue, Chalkhill blue, Scarce forester moth or the Silver spotted skipper."</i>	4.9km SE
High Meadow LNR	<i>"High Meadow is an area of common land perched on one of Dover's hilltops and offering panoramic views of the town in all directions. A number of orchids thrive at High Meadow including fragrant, common spot and pyramidal. The site is grazed by a herd of konik horse which are owned by the Wildwood Trust. The herd graze this site for some of the year and neighbouring Whinless Down the rest of the time. Grazing helps to give a greater variety of plants and animals opportunities to survive and prevents others from dominating."</i>	4.9km SE

SSSI – Site of Special Scientific Interest; SAC – Special Area of Conservation; NNR – National Nature Reserve; LNR – Local Nature Reserve

5.2 Wintering Bird Survey

5.2.1 Wintering Bird Surveys (WBS) carried out by GES between December 2022 and February 2023 recorded a total of 15 species within and immediately adjacent to the Site. The results of these surveys are shown below in Table 3, below. The full 2022 - 2023 WBS survey results are presented in Figures 2a-b.

Table 3 – Wintering Bird Survey Results

Species	Number Recorded				Species Conservation Designations ²
	Dec 22a	Dec 22b	Jan 23	Feb 23	
Blackbird <i>Turdus merula</i>	4	2	2	5	BoCC Green List
Blue tit <i>Cyanistes caeruleus</i>	1	3	5	10	BoCC Green List
Carrion crow <i>Corvus corone</i>	0	3	2	0	BoCC Green List
Collared dove <i>Streptopelia decaocto</i>	5	3	1	3	BoCC Green List
Chaffinch <i>Fringilla coelebs</i>	2	4	0	2	BoCC Green List
Dunnock <i>Prunella modularis</i>	0	1	0	1	S41, BoCC Amber List
Goldfinch <i>Carduelis carduelis</i>	0	19	0	0	BoCC Green List
Great tit <i>Parus major</i>	0	0	0	3	BoCC Green List
House sparrow <i>Passer domesticus</i>	12	15	1	0	S41, BoCC Red List, KRDB3
Jackdaw <i>Corvus monedula</i>	13	0	0	9	BoCC Green List
Magpie <i>Pica pica</i>	5	0	1	2	BoCC Green List
Robin <i>Erithacus rubecula</i>	2	6	4	4	BoCC Green List
Wood pigeon <i>Columba palumbus</i>	11	8	11	4	BoCC Green List
Wren <i>Troglodytes troglodytes</i>	2	2	1	1	BoCC Amber List
Yellowhammer <i>Emberiza citrinella</i>	0	0	5	0	S41, BoCC Red List, KRDB3

5.2.2 The bird species recorded within and adjacent to the Site are typical of those expected within the habitats present within the Site which include grassland, scrub, hedgerows and tree lines. The vast majority of records were of birds using the linear features along the boundaries (tree

² WCA1 = Wildlife and Countryside Act 1981 (as amended) Schedule 1, BoCC = Birds of Conservation Concern 5, S41 = Schedule 41 of the NERC Act (2006), KRDB = Kent Red Data Book.

lines, scattered trees, hedgerows and scrub). Few species were recorded within the grassland field itself.

- 5.2.3 The largest flock recorded was that of c. 17 goldfinch *Carduelis carduelis*, which were seen within a tree the northern boundary before taking flight and heading south-east.
- 5.2.4 Of the species recorded, 4 are considered 'Notable', either appearing on the Birds of Conservation Concern 5 (BoCC 5) Red or Amber Lists or species listed as priority under S41 of the NERC Act. No species listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) were noted during the survey visits. 'Notable' species recorded on-Site are presented in Table 4.

Table 4 – Notable wintering bird survey results

Species	Number Recorded				Species Conservation Designations
	Dec 22a	Dec 22b	Jan 23	Feb 23	
Dunnock <i>Prunella modularis</i>	0	1	0	1	S41, BoCC Amber List
House sparrow <i>Passer domesticus</i>	12	15	1	0	S41, BoCC Red List, KRDB3
Wren <i>Troglodytes troglodytes</i>	2	2	1	1	BoCC Amber List
Yellowhammer <i>Emberiza citrinella</i>	0	0	5	0	S41, BoCC Red List, KRDB3

5.3 Characterisation of Wintering Bird Assemblage

- 5.3.1 The results of the wintering bird surveys indicate that the Site is not of particular importance for wintering birds, but that it does provide wintering habitat for birds within the vegetated boundary features. Consequently, the most valuable habitat onsite includes the boundary hedgerows, scrub, scattered trees and tree lines.
- 5.3.2 Although a notable proportion of the species present (26%) are Red and Amber listed, or are listed as species listed as priority under S41 of the NERC Act, these species were recorded in low numbers and as above were restricted to the boundary features.
- 5.3.3 Consequently, no significant populations of wintering birds have been recorded on site. The majority of species recorded are common and widespread within the County of Kent. Furthermore, larger numbers of species such as sparrow were only recorded in the month of December, and are not considered to be "regularly occurring". Overall therefore, the nature

conservation value of the wintering bird assemblage within the Site is considered of 'Site' value.

6 CONCLUSIONS AND RECOMMENDATIONS

6.1 Designated Sites

Internationally Designated Sites

- 6.1.1 The Lydden and Temple Ewell Downs SAC, (situated c. 0.2km northwest of the Site) is designated for important chalk habitats, botanical and invertebrate species.. Nationally Designated Sites
- 6.1.2 Lydden and Temple Ewell Downs SSSI and NNR are located 0.2km to the north-west of the Site. These sites are designated for important chalk habitats, botanical and invertebrate species. No wintering birds are listed within the designation for the above sites. Therefore, the proposals will not result in detrimental effects on the designated sites above in relation to wintering birds.

6.2 Mitigation and Enhancement

- 6.2.1 To ensure the site's suitability for wintering birds is maintained, the proposed development should ensure the existing boundary vegetation is retained and enhanced as part of the Site's associated landscape strategy where possible.
- 6.2.2 Boundary vegetation could be enhanced in order to provide additional opportunities for wintering birds and other wildlife, through a wildlife-friendly planting scheme comprising of native winter berry producing trees and shrubs, in order to provide winter food sources. This would also create dense areas of vegetation which provide additional habitats for both wintering and breeding birds. Species such as blackthorn *Prunus spinosa*, dog rose *Rosa canina*, hawthorn *Crataegus monogyna*, holly *Ilex aquifolium*, Juniper *Juniperus communis*, rowan *Sorbus aucuparia* and Spindle *Euonymus europaea* are considered suitable for both the developed area and enhanced boundary vegetation.
- 6.2.3 The installation of a range of bird boxes in suitable locations such as trees and/or integrated into any proposed dwellings would increase opportunities within the Site for nesting birds. Boxes should be selected from either integrated boxes such as those available from www.habibat.co.uk, or open fronted and hole fronted nesting boxes such as those available from the [Nestbox Company](#). To maximise suitability, boxes should be installed on sheltered aspects close to vegetation at a height of 2-3m, preferably on north, north-east or north-west facing elevations. The number and location of boxes will be described and detailed in an associated landscape and ecological management plan for the Site.

- 6.2.4 It is, therefore, suggested that so long as the above enhancements and biodiversity features and measures are implemented in full, then development of the site will result in no significant direct or indirect impact on wintering birds within the site, or within the wider landscape.

7 REFERENCES

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Wildlife and Countryside Act (as amended) 1981. <http://jncc.defra.gov.uk/page-1377>

Figures



Legend

- Site Boundary
- WBS Transect Route



Job Reference : J21239
Project Title: Church Lane
Figure 1: Wintering Bird Survey Transect Route Map
Date : 10-01-23 Checked : MTR
Drawn : LH Approved : N/A
Status : Final Scale : NTS



Legend

- Site Boundary
- Bird
- Bird in Song
- Birds in Song
- Bird Perched to Flight
- Bird in Flight

Species

- | | |
|------------------|------------------|
| B. Blackbird | HS House Sparrow |
| BT Blue Tit | JD Jackdaw |
| C. Carrion Crow | MG Magpie |
| CH Chaffinch | R. Robin |
| CD Collared Dove | WP Wood Pigeon |
| D. Dunnock | WR Wren |
| GO Goldfinch | Y. Yellowhammer |
| GT Great Tit | |



Job Reference : J21239

Project Title: Church Lane

Figure 2a: Wintering Bird Survey (Dec 2022a)
Results

Date : 10-01-23 Checked : MTR

Drawn : LH Approved : N/A

Status : Final Scale : NTS

Copyright : Greenspace Ecological Solutions

All dimensions are to be checked on site. All measurements are for indicative purposes only.





Legend

- Site Boundary
- Bird
- Bird in Song
- Birds in Song
- Bird Perched to Flight
- Bird in Flight

Species

B. Blackbird	HS House Sparrow
BT Blue Tit	JD Jackdaw
C. Carrion Crow	MG Magpie
CH Chaffinch	R. Robin
CD Collared Dove	WP Wood Pigeon
D. Dunnock	WR Wren
GO Goldfinch	Y. Yellowhammer
GT Great Tit	

Job Reference : J21239

Project Title : Chruch Lane

Figure 2b: Wintering Bird Survey (Dec 2022b) Results

Date : 18-01-23 Checked : MTR

Drawn : LH Approved : N/A

Status : Final Scale : NTS

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Legend

- Site Boundary
- Bird
- Bird in Song
- Birds in Song
- Bird Perched to Flight
- Bird in Flight

Species

- | | |
|------------------|------------------|
| B. Blackbird | HS House Sparrow |
| BT Blue Tit | JD Jackdaw |
| C. Carrion Crow | MG Magpie |
| CH Chaffinch | R. Robin |
| CD Collared Dove | WP Wood Pigeon |
| D. Dunnock | WR Wren |
| GO Goldfinch | Y. Yellowhammer |
| GT Great Tit | |



Job Reference : J21239

Project Title: Chruch Lane

Figure 2c: Wintering Bird Survey (Jan 2023)
Results

Date : 18-01-23 Checked : MTR

Drawn : LH Approved : N/A

Status : Final Scale : NTS

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Legend

- Site Boundary
- Bird
- Bird in Song
- Birds in Song
- Bird Perched to Flight
- Bird in Flight

Species

- | | |
|------------------|------------------|
| B. Blackbird | HS House Sparrow |
| BT Blue Tit | JD Jackdaw |
| C. Carrion Crow | MG Magpie |
| CH Chaffinch | R. Robin |
| CD Collared Dove | WP Wood Pigeon |
| D. Dunnock | WR Wren |
| GO Goldfinch | Y. Yellowhammer |
| GT Great Tit | |



Job Reference : J21239

Project Title: Church Lane

Figure 2d: Wintering Bird Survey (Feb 2023)
Results

Date : 24-02-23

Checked : LR

Drawn : MTR

Approved : N/A

Status : Final

Scale : NTS

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All dimensions are to be checked on site. All measurements are for indicative purposes only.




Appendices

APPENDIX B – Legislation and Planning Policies

Legislation

- The Conservation of Habitats and Species Regulations 2017 (as amended) transposes European Union Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into national law. These regulations provide for the designation and protection of 'European Sites', the protection of 'European Protected Species' and the adaptation of planning controls for the protection of such sites and species. Under the regulations, public bodies have a duty in exercising their functions to have regard to the EC Habitats Directive.
- The Environment Act 2021 operates as the new framework of environmental protection following the United Kingdom's departure from the EU. The Environment Act allows the UK to enshrine some environmental protection into law, and offers new powers to set new binding targets, including for air quality, water, biodiversity, and waste reduction. The Act mandates the creation of Local Nature Recovery Strategies, Protected Site Strategies, Species Conservation Strategies, and the use of conservation covenants to support the design and delivery of strategic approaches to deliver better outcomes for nature. Additional mandates covered by The Act (Part 7) will come into force in November 2023 and include:
 - A requirement for Biodiversity Net Gain for developments, to ensure all development deliver a minimum of 10% net gains in biodiversity (Section 98).
 - Strengthening of the duty placed on all public bodies to "conserve" and "enhance" biodiversity (Section 102).
 - Duty placed upon Local Authorities to consult prior to felling street trees (Section 115).
- The Wildlife and Countryside Act 1981 (as amended) provides detail on a range of protection and offences relating to wild birds, other animals, and plants. The level of protection depends on which Schedule of the Act the species is listed on. Licences are available for specific purposes to permit actions that would otherwise constitute an offence in relation to species.
- The Countryside Rights of Way Act 2000 provides additional support to the Wildlife and Countryside Act 1981; for example, increasing the level of protection for certain species of reptiles.
- The Natural Environment and Rural Communities (NERC) Act 2006 imposes an obligation on all public bodies, including local authorities, to consider whether their activities can contribute to the protection of wildlife. The duty is created by section 40(1) of the Act, which states that:

“Every public authority must, in exercising its functions, have regard, so far as is consistent with the proper exercise of those functions, to the purpose of conserving biodiversity.”

- Hedgerows Regulations Act 1997 are enforced under the Environment Act 1995, and serves to: restrict the removal of hedgerows, or parts of hedgerows which are over 20m in length. In this case, removal includes digging up and replanting elsewhere, as well as removing from the land completely or destroying in the course of other actions. This includes developments or activities which destroy the roots, causing the vegetation to die.
- 
- The Wild Mammal (Protection) Act 1996 protects wild mammal species from certain cruel acts, including kicking, beating, nailing, or otherwise impaling, stabbing, burning, stoning, crushing, drowning, dragging or asphyxiation of any wild mammal with intent to inflict unnecessary suffering. Crushing and asphyxiation are most likely to occur as a result of development proposals, should these works collapse any mammal burrows, or encounter wild mammals on site.

National Planning Policy

- The National Planning Policy Framework (MHCLG July 2021) states (Section 15) that the planning system should identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks; promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity. It also states that local planning authorities should refuse planning on the following principles:
 - If significant harm to biodiversity resulting from a development cannot be avoided, adequately mitigated, or, as a last resort, compensated for;
 - If development is on land within or outside a Site of Special Scientific Interest (SSSI), and is likely to have an adverse effect on it (the exception being where the benefits of the development in the location proposed clearly outweigh its likely impact);
 - If development results in the loss or deterioration of irreplaceable habitats, such as ancient woodland and ancient or veteran trees (unless there are wholly exceptional reasons, and a suitable compensation strategy exists).
- Additionally, the NPPF states that development whose primary objective is to conserve or enhance biodiversity should be supported; while opportunities to incorporate biodiversity

improvements in and around developments should be encouraged, especially where this can secure measurable net gains for biodiversity.

Local Planning Policy

- Policy DM 15 of the Dover District Local Development Framework Core Strategy (Adopted February 2010) states the following:

- “Development which would result in the loss of, or adversely affect the character or appearance, of the countryside will only be permitted if it is:
 - i. In accordance with allocations made in Development Plan Documents, or*
 - ii. justified by the needs of agriculture; or*
 - iii. justified by a need to sustain the rural economy or a rural community;*
 - iv. it cannot be accommodated elsewhere; and v. it does not result in the loss of ecological habitats.**Provided that measures are incorporated to reduce, as far as practicable, any harmful effects on countryside character.”*

Recommendations to ensure the conservation of species protected under the above legislations, as well as habitats of principal importance (HPI) listed under Section 41 (s41) of the NERC Act 2006; and the protection of designated sites and species have been included within this report. In addition, recommendations for opportunities to enhance biodiversity within the Site have also been provided in line with the national and local policies.

ecology • landscape planning • arboriculture

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