

Land North of Moat Road, Headcorn

Ecological Appraisal

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Executive Summary

- i) **Introduction.** Aspect Ecology was commissioned by Catesby Strategic Land Limited to undertake an Ecological Appraisal in respect of proposed development of land north of Moat Road, Headcorn.
- ii) **Proposals.** The proposals are for residential development with associated access and landscaping, for which a planning application is required.
- iii) **Survey.** The site was originally surveyed in April 2021 based on standard extended Phase 1 methodology. An updated survey was carried out in August 2022 to verify the habitats present and their condition. Following an assessment of the suitability of the site to support protected, rare or notable species, further specific surveys were carried out at the site in respect of bats, Badger, Dormouse, Great Crested Newt, reptiles and breeding birds.
- iv) **Ecological Designations.** The site itself is not subject to any statutory or non-statutory ecological designations. The nearest statutory ecological designation to the site is River Beult Site of Special Scientific Interest (SSSI) located approximately 160m south-west of the site at its closest point. The nearest non-statutory ecological designation to the site is River Sherway, Ponds and Pasture Local Wildlife Site LWS, located approximately 840m south-east of the site. All of the ecological designations in the surrounding area are sufficiently separated and/or removed from the site, such that given the nature and scale of the proposals, no such sites are likely to be adversely affected.
- v) **Habitats.** The site principally comprises a grazed, species-poor semi-improved grassland field. Other habitats present include smaller patches of longer-sward semi-improved grassland, hedgerows which are present within and bounding the site, a small area of woodland, a pond, scattered trees, buildings, scrub, tall ruderal vegetation and bare ground. Features of elevated ecological interest include the hedgerows, woodland, pond and mature trees, all of which qualify as important ecological features at the local level. The proposals have sought to retain these features wherever possible and to protect and enhance them by additional new planting. The remaining habitats within the site do not form important ecological features and their loss to the proposals is of negligible significance. Habitat losses will be offset by the proposed new planting and other associated ecological enhancements, which will increase the value of the area for wildlife.
- vi) **Protected Species.** The buildings and a number of trees within the site are suitable for use by roosting bats. Slow Worm, Common Lizard and Grass Snake are present within the site, and buildings, trees and hedgerows provide suitable nesting habitat for birds. Ponds within and close to the site are likely to support Great Crested Newt. All trees with roosting bat potential will be retained under the proposals, while the landscape proposals retain the majority of habitats suitable for protected species including hedgerows and woodland. Appropriate mitigation measures will be applied to protect fauna, along with ecological enhancement to benefit these groups within the completed scheme.
- vii) **Enhancements.** The proposals present the opportunity to secure a number of biodiversity enhancements, including additional native tree planting, new roosting opportunities for bats, more diverse nesting habitats for birds, and enhancements for hedgehogs and invertebrates.
- viii) **Summary.** The proposals have sought to minimise impacts on biodiversity and subject to appropriate avoidance, mitigation and compensation measures, it is considered that the proposals will not result in significant harm to any ecological resources and deliver biodiversity benefits within the completed scheme.

1 Introduction

1.1 Background and Proposals

1.1.1 Aspect Ecology was commissioned by Catesby Strategic Land Limited to undertake an Ecological Appraisal in respect of proposed development of land North of Moat Road, Headcorn, centred at grid reference TQ 828 445 (see Plan 6196/ECO1), hereafter referred to as 'the site'.

1.1.2 The proposals (Appendix 6196/1) are for an outline application (with all matters reserved except access) for the development of up to 120no. dwellings (Use Class C3) including demolition of existing buildings, means of access into the site from Moat Road (not internal roads), associated highway works, provision of public open space, emergency / pedestrian access to Millbank and associated infrastructure including surface water drainage (with related off site s278 highway works to Moat Road).

1.2 Site Overview

1.2.1 The site is located at the north-western edge of Headcorn and is bounded to the north by new development off Mill Bank road, to the east by residential housing and associated gardens along Mill Bank road and Bankfields, to the south by Moat Road (beyond which lies farmland) and to the west by a mixture of farmland, a single residential property and its associated garden.

1.2.2 The site principally comprises a grazed, species-poor semi-improved grassland field. Other habitats present include small patches of longer-sward semi-improved grassland, hedgerows within and bounding the site, and small areas of woodland, scattered trees, buildings, scrub, tall ruderal vegetation and bare ground, and a pond.

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).

1.3.2 This report includes summarised responses received relating to ecological aspects of the proposals from Kent County Council's Ecological Advisory Service (EAS) for Local Planning Authorities¹.

¹ Kent County Council Ecological Advisory Service for Local Planning Authorities, Comments received from Luke Wallace dated 22 March 2023

2 Methodology

2.1 Desktop Study

- 2.1.1 In order to compile background information on the site and its immediate surroundings, Kent and Medway Biological Records Centre (KMBRC) was contacted in September 2021, and relevant data requested within 2km of the centre of the site.
- 2.1.2 Where information has been received from the above organisation this is reproduced on Plan 6196/ECO2, where appropriate.
- 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, from within an extended search distance of 25km from the site. The MAGIC database was also searched for the presence of Priority Habitats within or adjacent to the site. Relevant information is reproduced on Plan 6196/ECO2.
- 2.1.4 In addition, the Woodland Trust database was searched for records of ancient, veteran or notable trees within or in proximity to the site.
- 2.1.5 A number of relevant previous ecological surveys and assessments which were prepared in relation to earlier development proposals were also consulted and reviewed in the context of the current proposals, including:
- Land at King's Road, Headcorn: Ecological Method Statement and Ecological Design Strategy (Corylus Ecology, 2017²); and
 - Mill Bank, Headcorn: Ecological Appraisal (FPCR Environment and Design Ltd, 2015³).

2.2 Habitat Survey

- 2.2.1 The site was surveyed in April 2021 to assess the general ecological value of the land contained within the boundaries of the site and to identify the main habitats and ecological features present. Habitats present are shown on Plan 6196/ECO3.
- 2.2.2 The site was surveyed based on standard Phase 1 Habitat Survey methodology⁴, 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 Appraisal⁵ to record details on the actual or potential presence of any notable or protected species or habitats.
- 2.2.3 An updated Phase 1 Survey of the site was undertaken in August 2022. This survey confirmed the habitat types present and their extent, and assessed their condition in the

² Corylus Ecology (2017). *Land at King's Road, Headcorn: Ecological Method Statement and Ecological Design Strategy*

³ FPCR Environment and Design Ltd (2015). *Mill Bank, Headcorn: Ecological Appraisal*

⁴ Joint Nature Conservation Committee (2010, as amended) '*Handbook for Phase 1 habitat survey: A technique for environmental audit.*'

⁵ Chartered Institute for Ecology and Environmental Management (CIEEM) (2013) '*Guidelines for Preliminary Ecological Appraisal.*'

context of the requirements for assessing baseline condition to inform calculation of Biodiversity Net Gain (BNG), reported separately.

- 2.2.4 The nomenclature used for plant species within this report is based on that of the Botanical Society for the British Isles (BSBI) Checklist and Stace (2019)⁶.

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 during all surveys. Attention was paid to the potential presence of protected, rare or notable species, and specific consideration was given to bats, Badger, Dormouse, Great Crested Newt and reptiles in specific surveys, as described below.

Bats⁷

Visual Inspection Surveys

- 2.3.2 **Buildings.** Buildings within the site were subject to internal and external inspection surveys using ladders, torches and binoculars where appropriate in April 2021.
- 2.3.3 During the external inspections, particular attention was given to potential roost features or access points, such as broken or lifted roof tiles, lifted lead flashing, soffit boxes, weatherboarding, hanging tiles and similar, and for external signs of use by bats such as accumulations of bat droppings or staining. Binoculars were used to inspect inaccessible areas closely.
- 2.3.4 During the internal inspections, searches for evidence of the presence of bats were made, with particular attention paid to void spaces and other potential roost features and locations, such as ridge boards, rafters, purlins, gable walls, and mortise joints. Searches were made for bat droppings that indicate current or historic use of features as well as the extent of use, as well as other signs indicating the possible presence of bats such as stained areas and feeding remains.
- 2.3.5 **Trees.** Trees were assessed for their suitability to support roosting bats based on the presence of potential roost features such as holes, cracks, splits or loose bark. Suitability for roosting bats was rated based on relevant guidance⁸ as:
- Negligible;
 - Low;
 - Moderate; or
 - High.
- 2.3.6 Potential roost features were inspected for signs indicating possible use by bats, such as staining, scratch marks, bat droppings and similar.

⁶ Stace, C (2019) 'New Flora of the British Isles (4th Edition)' C & M Floristics

⁷ 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

⁸ Collins, J. (ed.) (2016) 'Bat Surveys for Professional Ecologists: Good Practice Guidelines (3rd edn).' Bat Conservation Trust

Dusk Emergence/ Dawn Re-entry Survey

- 2.3.7 Dusk emergence and dawn re-entry surveys were carried out on 11th/12th August 2021 to assess whether bats were using buildings that had been assessed as having potential to support roosting bats.
- 2.3.8 Surveyors used Anabat Scout bat detectors to identify bats observed. During the surveys, surveyors were positioned as shown on Plan 6196/ECO5. A single Infrared (IR) camera set-up, comprising a 1080p IR sensitive camera and two Evolva T38 IR lights, was deployed during the dusk and dawn bat surveys as shown on Plan 6196/ECO5, to confirm the numbers of any bats emerging or entering the building via specific potential roost features.
- 2.3.9 At dusk, surveyors were in position 15-30 minutes prior to sunset, remaining in place for approximately 2 hours. At dawn, surveyors were in place approximately 1 hour 30 minutes to 2 hours before sunrise and remained in place until 15 minutes after sunrise. This survey method, in accordance with standard guidance, is used to identify roosting bats that emerge from or return to potential roost features.
- 2.3.10 All bat surveys were carried out during suitable weather conditions, as set out in Table 1 below.

Table 1 – Weather conditions during bat emergence/re-entry surveys

Date	Start & end times & time of sunset	Structure reference / location	Equipment used	Weather
11/08/2021 (dusk)	Start time: 20.10 End time: 20.25 Sunset: 22.25	B4 and B5	Anabat Scout, 1080p IR sensitive camera (and two Evolva T38 IR lights)	Dry, 30% cloud, BF1, 19°C
Comments: The survey was undertaken by 3 surveyors and 1 IR camera set-up				
12/08/2021 (dawn)	Start time: 03.38 End time: 05.53 Sunset: 05.38	B1, B2 and B3	Anabat Scout, 1080p IR sensitive camera (and two Evolva T38 IR lights)	Dry, 90% cloud, BF1, 15°C
Comments: The survey was undertaken by 3 surveyors and 1 IR camera set-up				

BF0 = calm, BF12 = hurricane force.

Activity Surveys

- 2.3.11 Walked transect surveys were undertaken in July, August and September 2021 to investigate foraging and commuting bat activity within the site. This survey method, following standard guidance, requires surveyors to walk planned transect routes through the site, stopping at regular listening points, so as to be able to investigate habitats and features which have been identified as having potential to be used by commuting or foraging bats. Anabat Scout handheld bat detectors were employed to aid identification of any bats observed. Each transect began at sunset or up to 15 minutes prior to sunset and lasted for 2-3 hours, with a minimum 5 minute stop at each listening point.
- 2.3.12 Bat activity surveys were carried out during suitable weather conditions, as set out in Table 2 below.

Table 2 – Weather conditions during bat activity surveys

Date	Start & end times & time of sunset	Equipment used	Weather
19/07/2021	Start time: 20.47 End time: 23.02 Sunset: 21.01	Anabat Scout.	Dry, 20% cloud, BF1, 22°C
11/08/2021	Start time: 20.28 End time: 22.29 Sunset: 20.28	Anabat Scout.	Dry, 10% cloud, BF1, 19°C
14/09/2021	Start time: 19.12 End time: 21.14 Sunset: 19.12	Anabat Scout.	Dry, 20% cloud, BF1, 19°C

BF0 = calm, BF12 = hurricane force

2.3.13 To provide further data on the presence of bats within the site, in addition to the above surveys, automated Song Meter 2 (SM2) static bat detectors were deployed at two locations as shown on Plan 6196/ECO4. Detectors were deployed over three periods: 19th to 25th July 2021, 11th to 17th August 2021 and 14th to 20th September 2021. Detector SD1 was located at the northern boundary of the site beside hedgerow **H4** and detector SD2 was positioned in the centre of the site at hedgerow **H7**. The detectors were set to switch on approximately 30 minutes before sunset and switch off approximately 30 minutes after sunrise. Due to a fault with the detector deployed at location 1 during the second survey, only two full nights worth of data were recorded. Nonetheless, the data was recorded successfully over all other recording nights by both detectors, and combined with the walked transect surveys, the survey effort is considered to be sufficient to determine levels of bat activity across the site.

2.3.14 Weather conditions during the periods of deployment of static bat detectors are set out in Table 3 below.

Table 3 - Weather conditions during static bat detector deployment

Survey Date	Min Wind (BF)	Max Wind (BF)	Max Temp(°)	Min Temp(°)	Precipitation (mm)
19/07/2021	1	3	22	16	0
20/07/2021	2	3	18	15	0
21/07/2021	2	3	18	14	0
22/07/2021	2	4	16	13	0
23/07/2021	4	6	18	17	0
24/07/2021	0	3	15	18	0
25/07/2021	0	2	17	16	0
11/08/2021	0	3	19	14	0
12/08/2021	3	4	16	17	0
13/08/2021	2	4	14	17	0
14/08/2021	1	3	14	18	0
15/08/2021	3	5	14	17	0
16/08/2021	2	3	10	14	0
17/08/2021	2	3	17	14	0
14/09/2021	1	4	19	14	0
15/09/2021	1	2	16	9	0
16/09/2021	0	4	17	8	0
17/09/2021	2	3	18	15	0
18/09/2021	1	3	12	19	0
19/09/2021	2	4	18	15	0
20/09/2021	2	3	18	16	0

Information approximated from daily historic data records at www.wunderground.com, using Lashenden/Headcorn weather station. BF0 = calm, BF12 = hurricane force.

Analysis of Bat Survey Recordings

- 2.3.15 Bat calls were analysed using Anabat Insight to verify the species recorded. Where recordings could not be reliably attributed to species (typically for *Myotis* species) or where overlaps between otherwise distinguishable species occurred (such as for Pipistrelle calls around 40kHz or 50kHz) calls were identified to genus; calls that could not be distinguished between *Nyctalus* sp. and Serotine *Eptesicus serotinus* have been noted as 'big bat' species.

Badger (*Meles meles*)⁹

- 2.3.1 A Badger survey of the site was carried out in June 2021, and verified during the updated survey in August 2022. The survey comprised two main elements. The first involved searching for evidence of Badger setts. For any setts that were encountered, each sett entrance was noted and mapped. The following information was recorded:

- Number and location of well used / active entrances; these are clear from any debris or vegetation and are obviously in regular use and may, or may not, have been excavated recently;
- Number and location of inactive entrances; these are not in regular use and have debris such as leaves and twigs in the entrance or have plants growing in or around the edge of the entrance; and
- Number of disused entrances; these have not been in use for some time, are partly or completely blocked and cannot be used without considerable clearance. If the entrance has been disused for some time all that may be visible is a depression in the ground where the hole used to be and the remains of the spoil heap.

- 2.3.2 The second element involved searching for signs of Badger activity such as well-worn paths and push-throughs, snagged hair, footprints, latrines and foraging signs, so as to build up a picture of any use of the site by Badger.

Dormouse (*Muscardinus avellanarius*)¹⁰

- 2.3.3 Surveys were undertaken between July and November 2021 to establish the presence/absence of Dormouse within the site. Survey work followed the methodology set out within best practice guidance¹⁰, whereby nesting tubes are attached to branches of trees and shrubs and checked on a regular basis for signs of use by Dormouse.

- 2.3.4 The guidance requires sufficient survey effort to be applied to reliably conclude whether dormice are present or absent. Survey effort is calculated based on the number of tubes deployed and scores given to the months during which the survey takes place. Months are given higher scores where there is a greater likelihood of dormouse activity. Where evidence of Dormouse is not found, a survey effort score of at least 20 points is required to confirm absence.

⁹ Based on: Mammal Society (1989) 'Occasional Publication No. 9 – Surveying Badgers'

¹⁰ Based on: English Nature (2003) 'Surveying dormice using nest tubes: Results and experiences from the South West Dormouse Project', English Nature (2006) 'The Dormouse Conservation Handbook', 2nd Edition, English Nature Research Report No. 524; and Natural England (2011) 'Interim Natural England Advice Note – Dormouse surveys for mitigation licensing – best practice and common misconceptions', WML-537 (12/11)

2.3.5 A total of 60 Dormouse nest tubes were deployed within hedgerows at the site (see Plan 6196/ECO6). Nest tubes were checked monthly between July and November 2021. This means that a total survey effort score of 21.6 points was obtained.

Reptiles¹¹

2.3.6 A survey was undertaken to confirm the presence/absence of common reptile species from the site.

2.3.7 A total of 75 50x50cm sheets of thick roofing felt were placed within areas of suitable reptile habitat within the site at a density of approximately 11 sheets per hectare across the site. These sheets serve as refugia for reptiles, providing shelter as well as basking sites that heat up more quickly than their surroundings in the morning and can remain warmer than their surroundings in the late afternoon, and are this attractive to reptiles, which use them to raise their body temperature, enabling them to forage. Checking refugia at appropriate times of the day (morning and evening) when reptiles are most likely to use them for basking is an effective survey technique. The numbers of reptiles observed provides an indication of the parts of the site used by reptiles and the size of the population present, both of which is useful in guiding appropriate mitigation.

2.3.8 The refugia were set in place and allowed to settle in for approximately 1-2 weeks prior to the survey. Following this initial bedding-in period, refugia were checked at appropriate times of the day on seven occasions during suitable weather conditions, in accordance with standard survey guidance. Survey dates and weather conditions are set out in Table 4.

Table 4 - Reptile survey dates and weather conditions

Survey Date	Weather Conditions			
	Wind (BF)	Temp(°)	Cloud Cover (%)	Precipitation
06/09/2021	0	10	0	Dry
09/09/2021	1	17	50	Dry
13/09/2021	3	18	30	Dry
18/09/2021	0	14	40	Dry
20/09/2021	1	13	100	Light rain shower from 15 minutes into survey until end
23/09/2021	0	15	5	Dry
27/09/2021	2	18	40	Dry

BF0 = calm, BF12 = hurricane force

2.3.9 During the survey, reptiles basking in the open or partial cover were also searched for in suitable locations across the site and recorded when observed. Objects such as logs and rocks, and artificial refugia such as debris or tyres were searched, where present, for reptiles or evidence of reptiles such as sloughed skin.

Great Crested Newt (*Triturus cristatus*)

Habitat Suitability Index (HSI)

2.3.10 Ponds within the site and in close proximity were first assessed in accordance with the Habitat Suitability Index (HSI). The HSI is a scoring system that assessed the likelihood of a

¹¹ Surveys based on: Froglife Advice Sheet 10 (1999) 'Reptile Survey - an introduction to planning, conducting and interpreting surveys for snake and lizard conservation.'

water body supporting breeding Great Crested Newt. The HSI scores ten criteria and combines these scores to obtain an overall index score. The ten scoring criteria are:

- *SI1 Location*. The location of the water body within Great Britain;
- *SI2 Pond area*. The size of the water body;
- *SI3 Permanence*. How often the water body dries out;
- *SI4 Water Quality*. The water quality, based primarily on invertebrate diversity;
- *SI5 Shade*. The percentage of the perimeter of the water body that is shaded;
- *SI6 Fowl*. The presence or absence of water fowl;
- *SI7 Fish*. The presence or absence of fish;
- *SI8 Pond Count*. The number of water bodies within 1km of the surveyed water body (not counting those on the far side of major barriers such as roads);
- *SI9 Terrestrial*. The quality of terrestrial habitat surrounding the water body; and
- *SI10 Macrophytes*. The percentage cover of the surface area of the water body covered by macrophytes (aquatic plants).

2.3.11 The overall suitability of the water body is then determined by combining the scores derived for the above criteria according to the standard method described by Oldham *et al.* (2000)¹² as subsequently adapted by ARG UK (2010)¹³. The overall HSI score obtained corresponds to an assessment of suitability as either 'poor', 'below average', 'average', 'good' or 'excellent'.

Breeding Birds

2.3.12 The use of the site by breeding birds was assessed over six survey visits, (on separate days) from April to July 2023. Birds present within the site were recorded using a method modified from the British Trust for Ornithology's (BTO's) Common Bird Census technique.¹⁴

2.3.13 The survey method comprised walking a route across the site and recording birds either seen or heard. All such 'registrations' of birds were recorded on a site plan using standard BTO codes for each bird species and appropriate abbreviations.

2.3.14 This survey methodology has the advantage over other survey methods of mapping each registration to a specific point within the site and this therefore illustrates those areas containing the highest density and diversity of bird species. The dates of each survey, together with a summary of the weather conditions are shown in Table 5 below.

¹² Oldham RS, Keeble J, Swan MJS & Jeffcote M (2000) 'Evaluating the suitability of habitat for the Great Crested Newt (*Triturus cristatus*)'. Herpetological Journal 10 (4), 143-155

¹³ Amphibian & Reptile Groups of the UK (2010) 'ARG UK Advice Note 5: Great Crested Newt Habitat Suitability Index'

¹⁴ Baille *et al.* RA (2010) 'Breeding Birds in the Wider Countryside: their conservation status', BTO Research Report No. 385, BTO, Thetford.

Table 5 - Breeding bird survey dates and weather conditions

Survey Date	Start Time	Weather Conditions		
		Wind (Direction and BF)	Temp (°C)	Description
26/04/2023	06:30	SE 3	6	Part cloudy, dry
19/05/2023	06:00	NE 1	9	Sunny, dry
21/06/2023	07:05	SW 2	17	Overcast, dry
28/06/2023	07:20	SW 1	16	Overcast, dry
13/07/2023	08:15	SW 2	17	Cloudy, dry
18/07/2023	07:00	SW 3	20	Sunny, dry

BF0 = calm, BF12 = hurricane force.

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.
- 2.4.3 A recognised limitation of the bat activity surveys is that bat detectors can only provide an index of activity rather than absolute numbers of bats. Therefore, the results of the bat activity surveys should only be considered indicative of the amount of use bats make of an area rather than the abundance of bats. In addition, some bat species, e.g. Brown Long-eared Bat, are difficult to detect due to their quiet echolocation calls.
- 2.4.4 As stated above, due to a fault with the static bat detector deployed at location 1 during the second survey, only two full nights worth of data were recorded. Nonetheless, the data was recorded successfully during all other recording nights by both detectors, and combined with the walked transect surveys, the survey effort is considered to be sufficient to determine levels of bat activity across the site.
- 2.4.5 Densely vegetated habitats within the site have the potential to reduce the detectability of field signs for faunal species such as Badger. A detailed survey was able to be completed and, whilst dense scrub vegetation is present within the site, it is considered that the survey results do provide an accurate baseline to assess potential impacts of the proposals on Badger.

2.5 Ecological Evaluation Methodology

- 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)¹⁵, which involves identifying 'important

¹⁵ CIEEM (2018) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine', ver. 1.1, Chartered Institute of Ecology and Environmental Management, Winchester

ecological features' within a defined geographical context (i.e. international, national, regional, county, district, local or site importance). For full details refer to Appendix 6196/2.

2.6 National Policy Approach to Biodiversity in the Planning System

2.6.1 The National Planning Policy Framework (NPPF)¹⁶ 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 06/2005¹⁷.

2.6.2 NPPF takes forward the Government's strategic objective to halt overall biodiversity loss¹⁸, as set out at Paragraph 174, 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 180:

'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 improve biodiversity in and around developments should be integrated as part of their design, especially where this can secure measurable net gains for biodiversity or enhance public access to nature where this is appropriate.'*

2.6.4 The above approach encapsulates the 'mitigation hierarchy' described in British Standard BS 42020:2019¹⁹, which involves the following step-wise process:

¹⁶ Ministry of Housing, Communities & Local Government (2023) 'National Planning Policy Framework'

¹⁷ ODPM (2006) 'Circular 06/2005: Planning for Biodiversity and Geological Conservation – A Guide to Good Practice'

¹⁸ DEFRA (2011) 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services'

¹⁹ British Standards Institution (2013) 'Biodiversity – Code of practice for planning and development', BS 42020:2019

- **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.

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 42020:2019, 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 6196/ECO2 and Appendix 6196/3.

3.1.2 The nearest statutory designation is River Beult Site of Special Scientific Interest (SSSI) located approximately 160m to the south-west of the site at its closest point. This SSSI is one of the few clay rivers in England which retains a characteristic flora. The River Beult has a characteristically diverse clay-river flora, with many emergent (water edge) plant species and a smaller number of submerged or floating plants. The total for the river and banks approaches 100 species, including eleven mosses and liverworts. The river supports a diversity of insects, including two nationally scarce species, a water beetle *Haliplus laminatus* and Hairy Dragonfly *Brachytron pratense*. In addition, bare clay banks provide nesting sites for Kingfisher *Alcedo atthis* which occurs regularly along the river. Thick emergent fringes also provide cover and breeding sites for birds such as Reed Warbler *Acrocephalus scirpaceus* and Reed Bunting *Emberiza schoeniclus*.

3.1.3 The next nearest statutory designation is Sissinghurst Park Wood SSSI located approximately 5.7km to the southwest of the site. This SSSI is important for the number of rare plant species which occur in the rides and Alder *Alnus glutinosa* woodland (which is particularly restricted in Kent) along the lines of small streams and in seepage areas.

Evaluation

3.1.4 The site itself is not subject to any statutory ecological designations.

3.1.5 Natural England has developed Impact Risk Zones (IRZs) as an initial tool to help assess the risk of developments adversely affecting SSSIs, taking into account the type and scale of developments. A number of IRZs associated with River Beult SSSI are identified, including IRZs extending 50m, 200m and 500m from the SSSI. The 200m zone covers the south-western corner of the site and relates to any residential development of 10 or more houses outside existing settlements or urban areas while the 500m zone relates to residential developments of 50 or more houses outside existing settlements and urban areas. A number of specific operations are listed to have potentially adverse effects on the SSSI, including dumping, spreading or discharge of any materials along with recreational or other activities likely to damage features of interest. Based on a review of OS map and satellite imagery, where the SSSI falls within the vicinity of the site, it is within private land with no adjacent public footpaths. As such, impacts such as increased dumping or recreational disturbance are unlikely to result from the proposed development. The development proposals also include substantial open space along with attenuation ponds, including at the far south of the site, which will further reduce any potential risk of surface water run-off or recreational disturbance. Furthermore, the removal of potential agricultural run-off from the land is likely to benefit the SSSI in terms of water quality.

3.1.6 It is recommended that Natural England are contacted in order to ensure they are satisfied that the development proposals adequately safeguard the SSSI.

- 3.1.7 All other statutory ecological designations in the surrounding area are sufficiently distant from the site such that, given the type and scale of the proposals, would not be affected by the proposals.

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 6196/ECO2. The nearest non-statutory designation is River Sherway, Ponds and Pasture Local Wildlife Site (LWS), located approximately 840m to the southeast of the site. The next nearest non-statutory designation is Kelsham Farm Orchards LWS, located approximately 1.2km to the southwest of the site at its closest point.

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 sufficiently distant from and/or separated from the site by existing development, such that given the nature and scale of the proposals, they would not be affected by the proposals.

3.3 Priority Habitats, Ancient Woodland and Notable Trees

Description

- 3.3.1 There are no records of any notable or veteran trees within or adjacent to the site. The site contains a number of hedgerows likely to qualify as Priority Habitat, as discussed below in Chapter 4. In addition, the field immediately south of the site (beyond Moat Road) is mapped within MAGIC as 'No main habitat but additional habitat exists', due to potential presence of the Priority Habitat lowland meadow, albeit this habitat is either too small, or the underpinning evidence is insufficient in order for this area to be mapped as Priority Habitat. In any case, this field lies within offsite private land and there is no reason to suggest that the proposals will have any impact on the habitats within this area.
- 3.3.2 The Woodland Trust's Ancient Tree Inventory shows no veteran or ancient trees within the site. The closest such tree is a notable Lime *Tilia* sp. near St Peter & Paul's Church, Headcorn, over 200m south-east of the site. This tree would not be affected by the proposals.

Evaluation

- 3.3.3 Subject to the implementation of appropriate mitigation measures (as discussed below in Chapter 4 and Chapter 6) it is unlikely that any Priority Habitats or any notable or veteran trees will be significantly 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 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 species from within or immediately adjacent to the site were included within the information returned from the Records Centre. A number of records of Priority Species were returned from KMBRC including Bluebell *Hyacinthoides non-scripta* (a Wildlife and Countryside Act 1981, Schedule 8 species), Green-Winged Orchid *Anacamptis morio* and Common Cudweed *Filago vulgaris* (both listed as Near Threatened on the IUCN Red List GB, post 2001), dating between 2001 and 2021. All of the above species were recorded within 1km x 1km OS grid squares which partially overlap the site, albeit more specific information was not available that would allow the precise location of these records to be determined in relation to the site. Bluebell was recorded within the site during the survey work undertaken, as described below.

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 and ecological features were identified within or adjacent to the site:

- Semi-improved Grassland;
- Hedgerows;
- Woodland;
- Ponds;
- Trees;
- Buildings and Bare Ground;
- Tall Ruderal Vegetation; and
- Bramble Scrub.

4.2.3 The locations and extent of these habitat types and features are indicated on Plan 6196/ECO3.

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, hedgerows are considered to qualify as Priority Habitats and therefore constitute important ecological features. This is discussed further below.

4.4 Semi-improved Grassland

Description

- 4.4.1 The site is dominated by a semi-improved grassland field, shown on Plan 6196/ECO3 as semi-improved grassland **G1**. This is managed to maintain a short sward height by grazing or mowing right to the field boundaries, albeit the grassland becomes more tussocky next to the northern boundary hedgerow **H4**. Grass species present include Meadow Foxtail *Alopecurus pratensis*, Fescue *Festuca* sp. and Perennial Rye-grass *Lolium perenne*. Herb species are limited and sparsely distributed, including Dandelion *Taraxacum officinale* agg., Meadow Buttercup *Ranunculus acris*, Creeping Buttercup *R. repens*, Hoary Ragwort *Senecio erucifolius* and Common Sorrel *Rumex acetosa*. The south-western corner of the site includes more fine-leaved grasses and mosses, along with a slightly greater herb content including Field-woodrush *Luzula campestris*, albeit this south-western corner is still relatively similar to the rest of the field.
- 4.4.2 An area of semi-improved grassland and tall ruderals **G2** on Plan 6196/ECO3 is present adjacent to the eastern site boundary, north of the buildings. This area is rank and tussocky, not subject to grazing or mowing and is dominated by ruderal species including Cow Parsley *Anthriscus sylvestris*, Hogweed *Heracleum sphondylium*, Common Nettle *Urtica dioica*, Wild Parsnip *Pastinaca sativa* and small saplings, with occasional ornamental species present beside boundaries with adjacent gardens. This area comprises a formal orchard, with several Pear trees *Pyrus* sp. along with dead tree stumps present. This area contains numerous ant hills and log piles at its margins. A south-facing bank is present at the northern end of this area, where rabbit grazing maintains a slightly shorter sward.
- 4.4.3 Further rank and tussocky semi-improved grassland (**G3** on Plan 6196/ECO3) is present in the south-eastern corner of the site, around the buildings. This area contains a mixture of grasses such as False Oat-grass *Arrhenatherum elatius* along with Cow Parsley, Yarrow *Achillea millefolium*, Creeping Thistle *Cirsium arvense*, Hoary Ragwort, Hogweed, Tufted Vetch *Vicia cracca* and Common Dog-Violet *Viola riviniana*.

Evaluation

- 4.4.4 All the grassland on site 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 grassland. Semi-improved grassland is not uncommon in the local area, where a number of areas of good quality semi-improved grassland are known to be present, as mapped within MAGIC. As such, the species-poor semi-improved grassland on site does not constitute an important ecological feature and the loss of grassland to the proposals is assessed as of minor ecological significance.
- 4.4.5 The potential value of the grassland for faunal species such as reptiles and invertebrates is discussed at Chapter 5, below.

4.5 Hedgerows

Description

- 4.5.1 **H1** – Relatively substantial, outgrown hedgerow with dense and bushy growth, growing up to 5-6m in height and appearing relatively unmanaged. Species comprise Blackthorn *Prunus*

spinosa, Hawthorn *Crataegus monogyna*, Dog Rose *Rosa canina* and Field Maple *Acer campestre* along with some young Oak *Quercus* sp. trees of 8-10m in height. A healthy ground flora is present, including Dog's Mercury *Mercurialis perennis*, Lesser Celandine *Ficaria verna*, Ivy *Hedera helix*, Cleavers *Galium aparine* and Hemlock Water-dropwort *Oenanthe crocata*. A ditch runs along the base of the hedgerow on the side of the road. The hedgerow is relatively continuous, though becoming gappy at the eastern end.

H2 – A small section of hedgerow growing to approximately 5m in height, including semi-mature to mature Hawthorn and Pear *Pyrus communis* trees, along with smaller Hawthorn and Blackthorn. Ground flora is consistent with the adjacent grassland, with Lords-and-Ladies *Arum maculatum* also present.

H3 – A gappy hedgerow mostly dominated by Blackthorn, although with some sections dominated by Bramble, with Elder *Sambucus nigra* and occasional fruit trees also present. The width of the hedgerow varies to a maximum of approximately 5m. The southern part of the hedgerow (**H3a**) is relatively unmanaged, growing to a height of approximately 8m, while the northern section (**H3b**) is more heavily managed to a height of 2-3m, and is dense and bushy. Some Blackthorn and Bramble scrub is present encroaching from the hedgerow into the adjacent field.

H4 – Bushy, scrubby hedgerow growing to 4m in height and 4-5m wide, dominated by Blackthorn, but also containing Dog Rose *Rosa canina*, Goat Willow *Salix caprea*, Hawthorn and a semi-mature Oak tree. A dry ditch is present at the base of the hedgerow, while a small amount of recolonizing Blackthorn is present encroaching from the hedgerow into the field, though this is not well developed.

H5 – Dense hedgerow fairly similar in character to hedgerow H5, growing to approximately 6m high and 5m wide and dominated by Blackthorn, but also containing Hawthorn, Elder, Dog Rose, areas of dense Bramble, and small Field Maple and Willow *Salix* sp. trees, which are most frequent at the southern end. The hedgerow vegetation is Ivy covered in places, while the ground layer comprises a mixture of bare ground and ruderal species including Common Nettle and Lords-and-Ladies.

H6 – Comprises a double boundary feature with two lines of vegetation approximately 3m apart, containing a number of semi-mature to mature trees, including Oak, Field Maple and Ash *Fraxinus excelsior*, with some coppice stalls present. Beneath the trees is scrubby growth including Elder, while ground the flora includes Bluebell, Celandine *Saxifraga* sp., Dog's Mercury, Lords-and-Ladies, Common Nettle and Ground Ivy *Glechoma hederacea*. This hedgerow is situated on a south-facing bank.

H7 – A gappy, defunct hedgerow growing to 5-6m in height and taking the form of individual trees rather than dense, continuous growth. The hedgerow is mostly Hawthorn dominated, but also includes Elder and a semi-mature Ash (tree **T4**) at the far eastern end, within an associated thicket of scrub comprising Hawthorn and Bramble with Elder and Ash saplings. The hedgerow is situated on a south-facing bank, while the hedgerow ground flora includes grasses and ruderal vegetation including Common Nettle and Dock *Rumex* sp.

H8 – A defunct hedge, with scrubby growth of 6-10m in height containing a few small gaps less than 5m long. Species include Field Maple, Hawthorn and Blackthorn, with standard trees including Hawthorn and a large Oak (tree **T5**), present at the southern end. A small amount of Blackthorn was recorded encroaching into the onsite field. The base of the hedgerow is ruderal dominated, including Common Nettle and Lords-and-Ladies. A dry ditch is present running alongside this hedgerow.

Evaluation

- 4.5.2 The majority of hedgerows recorded within the site are relatively substantial and outgrown, are dominated by native species and contain standard trees. From a preliminary appraisal, **H1** and **H5** are considered to be species-rich²⁰ while **H1** is also likely to qualify as ecologically important under the Hedgerows Regulations 1997, based on the number of woody species and associated features. The remaining hedgerows are unlikely to qualify as important under the Regulations.
- 4.5.3 All of the hedgerows within the site are likely to qualify as Priority Habitat based on the standard definition²¹, which includes all hedgerows (>20m long and <5m wide) consisting predominantly (≥80%) of at least one native woody species. It has been estimated that approximately 84% of countryside hedgerows in Great Britain qualify as Priority Habitat under this definition.²¹
- 4.5.4 On this basis, the hedgerows present are considered to constitute important ecological features, although given the network present, locality and connectivity overall along with the abundance of similar habitats within the surrounding areas, of importance at the local level only.
- 4.5.5 The proposals are for the retention of all hedgerows within the site, although some short sections will be lost to facilitate access. Retained hedgerows will be protected during the construction phase of the proposals in accordance with the recommendations set out in Chapter 6. The proposals incorporate new planting which will link with existing and retained hedgerows which will enhance the value of these features for biodiversity.

4.6 Woodland

- 4.6.1 A small area of formative woodland/scrub (labelled woodland **W1** on Plan 6196/ECO3) is present beside the eastern site boundary, comprising a mixture of Hawthorn, Elder, Blackthorn and some young Elm *Ulmus* sp. trees. The ground flora comprises a mixture of Cow Parsley, Hemlock *Conium maculatum* and Lesser Celandine.
- 4.6.2 A wooded area (shown as woodland **W2**) is present immediately outside the site boundary at its north-western point, surrounding pond **P2**. This largely comprises Crack Willow *Salix fragilis*, while Goat Willow *Salix caprea*, Field Maple, Hawthorn and fairly dense Bramble are also present.

Evaluation

- 4.6.3 Both small areas of woodland comprise species which are common and widespread, and which were not recorded to support any species of particular botanical interest at the time of surveying. Woodland **W1** is young and relatively scrub-like, lacking mature trees. Nonetheless, both woodland areas are of elevated ecological value compared to the major area of the site, particularly with regards to potential to support fauna. Woodland **W2** is of benefit as a habitat component of the wider hedgerow network. **W2** is therefore considered to be an important ecological feature at the local level, while **W1** is important at the site level only.

²⁰ i.e. five or more native woody species within a 30m length (or four or more in Northern England) – FEP Manual

²¹ Based on: Biodiversity Reporting and Information Group (2011) 'UK Biodiversity Action Plan (BAP) Priority Habitat Descriptions', ed. Ant Maddock

4.6.4 Both woodland areas will be retained under the proposals and enhanced by new additional planting.

4.7 Ponds

Description

4.7.1 One pond **P1** is located within the site, while another **P2** is present immediate adjacent to the north-west corner of the site (see Plan 6196/ECO3). These ponds are described in Table 5 below:

Table 6 - Pond descriptions

Pond no.	Brief description	Approx. size	Shading	Aquatic/ emergent & marginal vegetation	Comments
P1	Field edge/ farmyard pond	20x10m	Mostly open.	Little emergent vegetation, but patches of rushes present, along with Bulrush <i>Typha latifolia</i> and leaf debris. Algae, clumps of sedges <i>Carex sp.</i> and Water Plantain <i>Alisma plantago-aquatica</i> at margins.	Thin, continuous coverage of reed mace. 30-50cm deep. fairly shallow at banks. Water quality generally poor, but better at margins.
P2	Field edge/ woodland copse pond	30x20m	Heavily shaded by willows within the surrounding copse.	Large amounts of Willow from adjacent woodland copse area growing into water. Otherwise, little marginal vegetation associated with this pond.	Good water quality.

Evaluation

4.7.2 Pond **P1** supports some common aquatic vegetation, while pond **P2** supports virtually no aquatic vegetation. Nonetheless, both ponds are likely to be of some ecological value for aquatic fauna such as amphibians and invertebrates, while these ponds are also likely to play a role in maintaining connectivity between the substantial network of ponds throughout the local area. As such, these features are considered to represent important ecological features at the local level.

4.7.3 Both ponds will be retained within the proposals, which also incorporate new attenuation ponds and wetland features associated with SUDS. Potential for ponds to support faunal species such as amphibians is discussed below in Chapter 5.

4.8 Trees

Description

4.8.1 The site contains a number of trees both within the hedgerows and elsewhere on site, largely towards the margins, with species including Oak, Ash, Elm, along with fruit trees such as Plum *Prunus sp.*, Pear, Hawthorn and Field Maple. The trees range from young to mature in age, including two mature fruit trees (likely Pear trees, labelled as Trees **T1** and **T2**, a mature Ash (Tree **T4**) and a number of relatively mature Oak trees, with trees **T3** and **T5** noted in particular a showing signs of age (as describe in more detail below Chapter 5 in relation to the potential of these trees to support roosting bats).

Evaluation

- 4.8.2 The trees on site vary in value based on their size and age. Those which are young to semi-mature are of some raised ecological value at the site level. However, the mature trees, in association with the generally well-treed landscape, are considered to likely represent important ecological features at the local level.
- 4.8.3 The majority of trees on site, including all the mature trees, are to be retained under the proposals, while extensive new native tree planting is proposed throughout the site. This would more than compensate for any removal of existing trees, should their removal be necessary.
- 4.8.4 Recommended safeguards to protect trees during construction are set out in Chapter 6.
- 4.8.5 The potential for trees to support fauna such as roosting bats is considered in Chapter 5 below.

4.9 Buildings

Description

- 4.9.1 A number of buildings are present within the farmyard area towards the south-eastern corner of the site, identified as buildings **B1-B5** on Plan 6196/ECO3.
- 4.9.2 Buildings **B1**, **B2** and **B5** are breezeblock structures, while Buildings **B3** and **B4** are of timber framed construction with corrugated metal sheeting on the sides. All are agricultural buildings likely to have been used in the past as cattle stalls. The buildings are in a relatively poor state of repair, while building **B3** has partially collapsed.

Evaluation

- 4.9.3 The buildings are devoid of vegetation, save for a small number of colonising weeds growing on the floor within some of these buildings. As such, they do not form important ecological features and their removal under the proposals is of negligible ecological significance. Potential for the buildings to support faunal species such as roosting bats is discussed below in Chapter 5.

4.10 Bare Ground, Tall Ruderal Vegetation and Mixed Scrub

Description

- 4.10.1 The farmyard contains substantial areas of bare ground, mixed with patches of vegetation including a grasses such as Meadow-grass *Poa* sp. and ruderal species including Yarrow, Bristly Oxtongue *Picris echinoides*, Creeping Thistle, Common Nettle and Hemlock, along with Bittercress *Cardamine* sp., Red Dead-nettle *Lamium purpureum* and Cleavers. This area also contains piles of earth, rubble and debris.
- 4.10.2 The site also contains more substantial patches of ruderal vegetation, north of building **B5** and adjacent to many hedgerows, with species including Common Nettle, Cleavers, Dock and Lords-and-Ladies.
- 4.10.3 Areas of mixed scrub are also present, with species including Elder, Hawthorn, Blackthorn and Bramble, while a small amount of hedgerow (<20m) is present north of the buildings, dominated by Wilson's Honeysuckle *Lonicera nitida*.

Evaluation

The patches of additional habitat described above comprise only common and widespread species and all such habitats are inherently common in nature. Accordingly, these habitats offer negligible ecological value and do not represent important ecological features and their loss to the proposals will be of negligible ecological significance.

4.11 Habitat Evaluation Summary

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

Table 7 – Habitats that qualify as important ecological features

Habitat	Level of Importance
Hedgerows	Local
Woodland W2	Local
Ponds	Local
Mature Trees	Local

- 4.11.2 Other habitats present within the site 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 Badgers, bats, Dormouse and reptiles, the results of which are 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 undertaken, the Priority Species Soprano Pipistrelle *Pipistrellus pygmaeus*, Common Lizard *Zootoca vivipara*, Slow Worm *Anguis fragilis*, Grass Snake *Natrix natrix*, House Sparrow *Passer domesticus*, Linnet *Carduelis cannabina*, Skylark *Alauda arvensis* and Yellowhammer *Emberiza cirtinella* were identified on site, while a Long-eared Bat *Plecotus* sp. was also recorded, likely to be the Priority Species Brown Long-eared Bat *Plecotus auratus*.

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 6196/4 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 S41 Priority Species.

5.3.2 **Background Records.** No specific records of bats from within or adjacent to the site were returned from the desktop study. Information received from the LRC returned records of Common Pipistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle, Nathusius' Pipistrelle *Pipistrellus nathusii*, Serotine, Brown Long-eared Bat, Daubenton's Bat *Myotis daubentonii*, Leisler's Bat *Nyctalus leisleri*, and Noctule *Nyctalus noctula* within 2km of the site. The closest specific records to the site are Common Pipistrelle, Soprano Pipistrelle and Noctule, all recorded in 2014 from a grid reference located approximately 250m east of the site. In addition, most of the above species have been recorded at the nearby Mill Bank and King's Road development sites as part of the bat emergence/re-entry and activity survey work undertaken by third party consultancies.



5.3.3 **Survey Results and Evaluation**


Visual Inspection Surveys

Buildings

5.3.4 Findings of the assessment of potential for the buildings within the site to support roosting bats are summarised in Table 7 below.

Table 8 - Summary findings of building inspections for bats

Building	Photo	Description / bat roosting potential
<p>B1, B2 and B5</p>		<p>Breezeblock cattle stalls with corrugated metal roof supported on wooden beams. Cracks are present in the brickwork, while splits are present within some of the wooden beams.</p> <p>Low potential to support roosting bats</p>
<p>B3</p>		<p>Timber framed construction with pitched roof clad with slate tiles, with wooden sarking boarding underneath. The building also has a section to the north with corrugated metal sheeting.</p> <p>The building is open to the north, is half collapsed and contains gaps within the wooden framework.</p> <p>Low potential to support roosting bats</p>

Building	Photo	Description / bat roosting potential
B4		<p>Timber framed construction with corrugated metal walls. Flat roof comprising lattice of W beams and corrugated metal sheeting above.</p> <p>Open sided to the west but generally enclosed.</p> <p>Splits within the larger wooden beams and gaps between beams. The building also has some evidence of fire damage.</p> <p>Low potential to support roosting bats.</p>

Trees

5.3.5 A number of semi-mature and mature trees are present on site. The results of the tree assessment work undertaken at the site are illustrated on Plan 6196/ECO3 and summarised in Table 8 below:

Table 9 - Potential bat roosts in trees

Tree No.	Species	Age	Potential Roost Features	Suitability
T2	Pear	Mature	Some deadwood, cracks and crevices present	Low
T3	Oak	Mature	Splits in upper part of trunk and a limb has died off with splits and cracks	Moderate
T5	Oak	Mature	Dead limb on lower part of tree. Numerous small holes (likely made by woodpecker), with a few rot holes, knot holes and crevices present.	Moderate/High

5.3.6 A line of mature fruit trees is present to the north of the buildings. These trees are assessed as having low roosting bat potential on account of their age and the presence of occasional cracks and crevices. Mitigation measures will be required should any of these trees are to be removed, as described at Chapter 6.

Dusk and Dawn Surveys

Emergence / re-entry surveys (buildings)

5.3.7 Buildings B1-B5 were assessed as having low suitability to support roosting bats and were therefore subject to further survey work in the form of dusk emergence and dawn re-entry surveys. The results of the dusk emergence and dawn re-entry surveys are summarised in Table 9 below.

Table 10 – Findings of bat emergence/re-entry surveys of buildings

Building	Date	Sunset/sunrise	Emergence/ re-entry	Summary of other activity
B1-B3	12 th August 2021 (dawn)	5:38	No bats observed emerging or entering the structure	Frequent Common and Soprano Pipistrelle (mostly Common Pipistrelle) foraging activity between the buildings, particularly near to buildings B3 and B4. A single pass by a Brown Long-eared Bat was recorded at 4:31 to the north of buildings B1 and B2.
B4	11 th August 2021 (dusk)	20:25	Single Common Pipistrelle emergences were recorded from the open barn entrance on the eastern elevation (location A on plan 6196/ECO5) at 20:49, 20:57 and 21:22. When leaving the barn, these bats each spent up to a minute leaving/re-entering the barn. These bats may have been light sampling after leaving their roosting locating within the building, or may have been foraging. It is noted that during the dawn survey, a single Common Pipistrelle was incidentally sighted entering an open doorway on the southern elevation of building B4 (location B on plan 6196/ECO5) before immediately leaving (likely foraging behaviour).	Generally Low levels of Common and Soprano Pipistrelle activity surrounding these buildings, albeit much higher levels of Common Pipistrelle activity closer to building B5. Two simultaneous passes by Long-eared Bat species were recorded southeast of building B4 /southwest of building B5 .
B5	11 th August 2021 (dusk)	20:25	No bats observed emerging or entering the structure	

5.3.8 Three separate sightings were made of Common Pipistrelle emerging from the open barn entrance on the eastern elevation of building **B4** during the dusk survey, while during the dawn survey, a single Common Pipistrelle was seen briefly entering a doorway on the southern elevation of this building before leaving again. It is possible that those bats seen leaving the barn entrance had been roosting within this building, particularly given that two of these sightings were relatively soon after sunset (24 minutes and 32 minutes respectively) and therefore during the typical emergence period for this species. However, given that bats use more than one entrance of this building, it is also possible that these bats had simply passed through this building. Based on this, and taking a precautionary approach, Building **B4** is considered to be likely to provide a day roost or feeding roost for a small number of Common Pipistrelle.

5.3.9 No evidence of bats emerging or returning from any other structure was obtained and it is concluded that bats do not roost within buildings **B1**, **B2**, **B3** or **B5**.

5.3.10 All buildings on site are to be demolished under the proposals and as such, mitigation measures are recommended at Chapter 6 below to ensure roosting bats are fully protected during the proposals. Subject to such measures, along with further mitigation and

enhancement measures, also described at Chapter 6, the conservation status of bats at the site will be maximised in the long term.

Activity surveys (foraging /commuting)

5.3.11 The hedgerows and woodland offer potential opportunities for foraging bats as they are likely to support a reasonable biomass of invertebrate prey. In addition, the hedgerows form linear corridors that could act as navigational aids for commuting bats and provide connectivity to suitable off-site habitats in the surrounding area, including woodland, hedgerows and watercourses. As such, monthly bat activity surveys were undertaken at the site between July and September 2021.

5.3.12 **Manual walked transect surveys.** The detailed activity survey results are included at Appendix 6196/5 and illustrated on Plan 6196/ECO4, summarised in the tables below.

Table 11 - Summary of findings of the dusk walked transect on 19th July 2021

Species	Number of Passes Recorded	Approximate % of Total Passes Recorded
Common Pipistrelle	20	77
Soprano Pipistrelle	4	15
Noctule	2	8
Total	26	100

Table 12 - Summary of findings of the dusk walked transect on 11th August 2021

Species	Number of Passes Recorded	Approximate % of Total Passes Recorded
Common Pipistrelle	55	78.5
Soprano Pipistrelle	13	18.5
Myotis	2	3
Total	70	100

Table 13 - Summary of findings of the dusk walked transect on 14th September 2021

Species	Number of Passes Recorded	Approximate % of Total Passes Recorded
Common Pipistrelle	6	75
Soprano Pipistrelle	1	12.5
Myotis	1	12.5
Total	8	100

5.3.13 The tables above indicate that during the dusk and dawn surveys in 2021, Common Pipistrelle was the most commonly recorded species, accounting for 78% of all registrations, while Soprano Pipistrelle accounted for 17% of all registrations. Fewer Noctule and *Myotis* species were recorded, accounting for 2% and 3% of registrations respectively.

5.3.14 During the walked transects, levels of bat activity recorded were generally low throughout the site (i.e. <0.5 passes per minute). The walk between Listening Points (LPs) 3 and 4 (mostly along hedgerows **H6** and **H7**) was subject to higher levels of activity (>1 pass per minute) during the July and August surveys, while LP4 (at the junction between **H5** and **H6**) was also subject to a high level of activity during the July survey. Elsewhere, bat activity was recorded at a low level across most of the site.

5.3.15 **Remote Detector Surveys.** The results of the automated static bat surveys are summarised in the tables below.

Static Detector Location 1 (hedgerow H4)

Table 14 - Summary of registrations, Static Detector Location 1, July 2021

Date	Detector Location 1: Hedgerow H4						
	Number of registrations by species#						
	Myotis	Serotine	'Big Bat'	Pip 45	Pip 55	Pip	BLE
19 th July	0	0	0	30	9	0	0
20 th July	0	0	0	28	16	0	0
21 st July	0	0	17	89	34	0	0
22 nd July	0	0	3	25	20	0	0
23 rd July	0	0	5	96	14	0	0
24 th July	0	0	5	20	15	0	0
25 th July	0	0	0	24	4	0	0
Total registrations	0	0	30	312	112	0	0
Approximate % of total registrations	0	0	7	69	25	0	0

Key:
 Myotis- Myotis sp.
 Pip 45- Common Pipistrelle
 Pip 55- Soprano Pipistrelle
 Pip- Common Pipistrelle or Soprano Pipistrelle
 'Big Bat' - Noctule, Leisler's Bat or Serotine
 BLE - Brown Long-eared bat

- Figures shown are the total no. of registrations recorded during the dusk to the proceeding dawn period for each date shown, i.e. a recording 'night' for the 19th July will be registrations recorded from ~20.25 on the 19/07 till ~05.45 on the morning of the 20/07.

Table 15 - Summary of registrations, Static Detector Location 1, August 2021

Date	Detector Location 1: Hedgerow H4						
	Number of registrations by species#						
	Myotis	Serotine	'Big Bat'	Pip 45	Pip 55	Pip	BLE
11 th August	7	0	0	26	11	0	0
12 th August	5	0	0	143	14	0	1
Total registrations	12	0	0	169	25	0	1
Approximate % of total registrations	6	0	0	82	12	0	0.5

Key as Table 13

Table 16 - Summary of registrations, Static Detector Location 1, September 2021

Date	Detector Location 1: Hedgerow H4						
	Number of registrations by species#						
	Myotis	Serotine	'Big Bat'	Pip 45	Pip 55	Pip	BLE
14 th September	14	0	17	31	30	0	0
15 th September	6	0	69	14	1	0	0
16 th September	3	0	60	22	23	0	0
17 th September	4	0	35	53	24	0	1
18 th September	6	0	31	58	17	0	0
19 th September	7	0	22	47	74	0	0
20 th September	7	0	7	10	3	6	0
Total registrations	47	0	241	235	172	6	1

Date	Detector Location 1: Hedgerow H4						
	Number of registrations by species [#]						
	Myotis	Serotine	'Big Bat'	Pip 45	Pip 55	Pip	BLE
Approximate % of total registrations	7	0	34	33	25	1	0.1

Key as Table 13

Static Detector Location 2 (hedgerow H7)

Table 17 - Summary of registrations, Static Detector Location 2, July 2021

Date	Detector Location 2: Hedgerow H7						
	Number of registrations by species [#]						
	Myotis	Serotine	'Big Bat'	Pip 45	Pip 55	Pip 38	BLE
19 th July	0	0	5	47	13	0	0
20 th July	0	0	12	27	10	0	0
21 st July	0	0	6	38	11	0	0
22 nd July	0	0	0	123	69	0	0
23 rd July	0	0	0	79	35	0	0
24 th July	0	0	7	43	14	0	0
25 th July	0	0	7	56	26	0	0
Total registrations	0	0	37	413	178	0	0
Approximate % of total registrations	0	0	6	66	28	0	0

Key as Table 13

Table 18 - Summary of registrations, Static Detector Location 2, August 2021

Date	Detector Location 2: Hedgerow H7						
	Number of registrations by species [#]						
	Myotis	Serotine	'Big Bat'	Pip 45	Pip 55	Pip 38	BLE
11 th August	0	0	0	0	0	0	0
12 th August	0	0	2	17	7	0	0
13 th August	0	0	1	36	6	0	0
14 th August	0	0	3	30	27	0	0
15 th August	0	0	2	29	12	0	0
16 th August	0	0	3	18	6	0	0
17 th August	0	0	9	36	13	0	0
Total registrations	0	0	20	166	71	0	0
Approximate % of total registrations	0	0	8	65	28	0	0

Key as Table 13

Table 19 - Summary of registrations, Static Detector Location 2, September 2021

Date (2021)	Detector Location 2: Hedgerow H7						
	Number of registrations by species [#]						
	Myotis	Serotine	'Big Bat'	Pip 45	Pip 55	Pip 38	BLE
14 th September	17	0	12	33	30	0	0
15 th September	15	0	1	17	2	0	0
16 th September	10	0	11	17	1	0	0
17 th September	10	0	9	35	6	0	0

Date (2021)	Detector Location 2: Hedgerow H7						
	Number of registrations by species [#]						
	Myotis	Serotine	'Big Bat'	Pip 45	Pip 55	Pip 38	BLE
18 th September	4	0	4	96	10	0	0
19 th September	32	0	17	181	34	0	0
20 th September	15	0	9	20	7	1	0
Total registrations	103	0	63	399	90	1	0
Approximate % of total registrations	16	0	10	61	14	0.2	0

Key as Table 13

Summary

Table 20 - Number of bat passes per night for static detector location 1

Date (2021)	Average number of passes per night					
	Myotis	'Big Bat'	Pip 45	Pip 55	Pip	LE
19 th – 25 th July	0	4	45	16	0	0
11 th – 17 th August	6	0	85	13	0	0.5
14 th – 20 th September	7	34	34	25	0.9	0.1
Total average across all 16 nights.	4	17	45	19	0.4	0.1

Table 21 - Number of bat passes per night for static detector location 2

Date (2021)	Average number of passes per night					
	Myotis	'Big Bat'	Pip 45	Pip 55	Pip 38	LE
19 th – 25 th July	0	5	59	25	0	0
11 th – 17 th August	0	3	24	10	0	0
14 th – 20 th September	15	9	57	13	0.1	0
Total average across all 21 nights.	5	6	47	16	0	0

5.3.16 Summary. During the surveys undertaken between July and September 2021 at static detector location 1 (hedgerow H4), 53% of all passes were attributed to Common Pipistrelle, 23% to Soprano Pipistrelle, 0.4% to unidentified pipistrelle species (Common Pipistrelle or Soprano Pipistrelle), 20% to 'Big Bats', 4% to *Myotis* species and 0.1% to Long-eared Bat Species. During the surveys undertaken at static detector location 2 (hedgerow H7), 63% of all passes were attributed to Common Pipistrelle, 22% to Soprano Pipistrelle, 8% to 'Big Bats', 7% to *Myotis* species and 0.1% to Nathusius' Pipistrelle.

5.3.17 The average number of bat passes per night (see Tables 5.13 and 5.14) generally fell within the range of 0-9 passes for most species at both locations, with the exception of Common and Soprano Pipistrelle, for which 45 and 19 passes respectively were recorded per night (across all survey nights) at survey location 1, with very similar figures for survey location 2. The number of passes by per night by 'big bats' (likely dominated by Noctule) varied, with this figure usually falling between 0-9 passes per night, but with 34 passes per night recorded between 14th and 20th September at survey location 1 (hedgerow H4).

5.3.18 Evaluation. As noted above, the hedgerows and woodland offer potential opportunities for foraging/commuting bats and indeed, foraging and commuting bats were recorded during the activity surveys, including relatively frequent passes from common species (particularly Common and Soprano Pipistrelle and to a lesser extent, 'Big Bats', most of which were likely to be Noctule) and occasional passes from rarer species including *Myotis* species, Nathusius'

Pipistrelle and Long-eared Bat species (likely Brown Long-eared Bats). The combination of habitats on site occurs relatively frequently in the surrounding area and taking this into account, together with the levels of activity and species recorded during the survey work, the site is considered to be of local level value to foraging and commuting bats.

- 5.3.19 The majority of the woodland and hedgerows within the site will be retained under the proposals, whilst new shrub and tree planting will improve connectivity through the site and increase the foraging potential of the site.
- 5.3.20 Accordingly, subject to the implementation of the recommendations outlined at Chapter 6 below, along with other ecological enhancements, it is considered that the conservation status of local bat populations will be fully safeguarded under the scheme.
- 5.3.21 EAS⁴ have advised that external lighting design should be carefully designed to minimise light pollution, so as not to adversely impact biodiversity. This could be delivered as a condition of approved planning permission.

5.4 Badger

- 5.4.1 **Legislation.** Badger receive legislative protection under the Protection of Badgers Act 1992 (see Appendix 6196/4 for detailed provisions), and as such should be assessed as an important ecological feature. The legislation aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain. It is the duty of planning authorities to consider the conservation and welfare impacts of development upon Badger and issue permissions accordingly.
- 5.4.2 Licences can be obtained from Natural England for development activities that would otherwise be unlawful under the legislation. Guidance on the types of activity that should be licensed is laid out in the relevant best practice guidance.^{22, 23}
- 5.4.3 **Background Records.** No specific records of Badger within or adjacent to the site were returned by the records centre. However, a number of records of Badger within the wider search area were returned, confirming the presence of this species in the local area around the site.
- 5.4.4 **Survey Results.** No Badger setts were recorded within or immediately adjacent to the site during the survey work undertaken. A single potential Badger sett (mapped as **S1** on Plan 6196/ECO3) was recorded within the site, located adjacent to hedgerow **H6**. This includes a single D-shaped entrance hole, large enough for use by Badger, with a relatively fresh spoil heap outside. However, no additional evidence of Badger (such as hairs, footprints or dung) were recorded, while substantial evidence of Rabbit *Oryctolagus cuniculus* activity, including Rabbit burrows, was also recorded along this hedgerow, which indicates that **S1** may simply comprise a relatively large Rabbit burrow. Evidence of Rabbit, and absence of evidence of Badger was found during the updated survey in August 2022 which confirms that it is likely that this is a Rabbit warren.
- 5.4.5 **Evaluation.** No confirmed Badger setts have been recorded at the site. A single potential Badger Sett (**S1**) was recorded amongst Rabbit burrows, albeit with no other associated field signs of Badger. Hedgerow **H6** (along with any associated Rabbit/Badger activity, including **S1**) is located within the substantial area of proposed greenspace withing the

²² English Nature (2002) 'Badgers and Development'

²³ Natural England (2011) 'Badgers and Development: A Guide to Best Practice and Licensing', Interim Guidance Document

development, where suitable Badger habitat including boundary hedgerows and woodland will also be retained. Consequently, Badger setts would not be affected by the proposals. The provision of extensive new planting will enhance foraging opportunities for this species in the long term.

5.4.6 Given the potential presence of Badger at the site, a number of precautionary measures and safeguards are proposed, as set out at Chapter 6.

5.5 Amphibians

5.5.1 **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 6196/4 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 where present.

5.5.2 **Background Records.** The third-party consultancy survey work undertaken to inform the Mill Bank and Kings Road developments identified a number of ponds within 250m of the current site, and beyond, which support Great Crested Newt. The closest of these is a pond located immediately to the north of the current site (adjacent to the north-eastern corner of the site), where a 'low population count' of Great Crested Newt was recorded in 2015, while a number of ponds within 500m of the site have been recorded to support breeding populations. Similarly KMBRC returned a number of records of Great Crested Newt and other amphibian species within the search area (the closest record of Great Crested Newt being the individuals recorded within pond beyond the north-eastern corner of the site, recorded in 2015, as described above).

5.5.3 **Survey Results.** Two ponds have been identified within and immediately adjacent to the site (**P1** and **P2**, described above). An initial appraisal of these ponds was made using the HSI score to investigate the likelihood of the ponds supporting breeding Great Crested Newt (see Table 21 below).

Table 22 - Habitat Suitability Index assessment of ponds

Pond	Suitability Indices										HSI Score	Suitability
	SI 1 Location	SI 2 Pond Area	SI 3 Pond Drying	SI 4 Water Quality	SI 5 Shade	SI 6 Water Fowl	SI 7 Fish	SI 8 Ponds	SI 9 Terrestrial Habitat	SI 10 Macrophytes		
Assessment												
P1	1	0.3	1	0.67	1	1	1	1	0.67	0.65	0.78	<i>Good</i>
P2	1	1	1	1	0.3	1	1	1	1	0.3	0.79	<i>Good</i>

5.5.4 Both ponds **P1** and **P2** were found to be of 'good' suitability to support Great Crested Newt.

5.5.5 Evaluation and Assessment of Likely Effects.

- 5.5.6 The HSI scores obtained for both ponds indicate that they offer 'good' suitability to support breeding Great Crested Newt. It is likely that this species is present because of this and its known presence in ponds within 500m of the site. The site is dominated by species-poor semi-improved grassland growing at a short sward height. This provides sub-optimal terrestrial habitat for Great Crested Newt, although it is possible that Great Crested Newt may occur within this habitat when moving between other, more favourable, areas.
- 5.5.7 Kent operate a District Licensing Scheme for Great Crested Newts and it is proposed that this will be followed for the proposals. Because of this, no further survey work will be required in respect of this species.
- 5.5.8 EAS¹ have advised that prior to the commencement of works, the countersigned District Level Licence enquiry form is provided and approved by the local planning authority. This could be delivered as a condition of approved planning permission.

5.6 Dormouse

- 5.6.1 **Legislation:** Dormouse 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 (as amended). Such legislation affords protection to individuals of the species and their breeding sites and places of rest (see Appendix 6196/4 for detailed provisions). Dormouse is also a S41 Priority Species. On this basis, Dormouse is considered to form an important ecological feature.
- 5.6.2 **Background Records:** No records of Dormouse were returned from KMBRC from within the site or within the wider search area.
- 5.6.3 **Survey Results:** The study area provides opportunities for Dormouse, particularly in the form of the Hedgerows, and, to a lesser extent, the small woodland copses and areas of scrub. Given the presence of potential Dormouse habitat within the study area, specific Dormouse survey work was undertaken at the site. The locations of Dormouse tubes (along the hedgerows) are shown at Plan 6197/ECO7.
- 5.6.4 Dormouse surveys undertaken at the site returned no evidence of Dormouse, although evidence of Wood Mouse *Apodemus sylvaticus* was recorded within a number of the hedgerows including live Wood Mice, nests, nut caches and berry caches.
- 5.6.5 **Evaluation:** The majority of the study area is dominated by open grassland which is unsuitable for Dormouse, while the absence of any evidence of Dormouse during the survey work undertaken suggests that this species is not present within the site. As such, Dormouse is not considered to represent a constraint to the proposals. Although the presence of Wood Mouse has been confirmed within the on-site hedgerows, this species does not receive direct legislative protection relevant to development activities.

5.7 Reptiles

- 5.7.1 **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 6196/4 for detailed provisions. All six reptile species are also S41 Priority Species. As such, all reptile species should be assessed as important ecological features.

5.7.2 **Background Records.** The reptile survey work undertaken within the adjacent Mill Bank development site during 2015 recorded both Common Lizard and Slow Worm, the density of which was described to constitute a ‘low’ population of both species based on Froglife Advice Sheet 10, Table 2²⁴. Reptile survey work was also undertaken as part of the King’s Road development in 2014, which recorded an exceptional population of Slow Worm and a low population of Grass Snake and Common Lizard (also based on Froglife Advice Sheet 10, Table 2). In addition, information received from KMBRC included a number of records of Common Lizard, Grass Snake and Slow Worm, although none of these were recorded within or adjacent to the site.

5.7.3 **Survey Results.** Specific survey work for reptiles was undertaken at the site, the results of which are summarised in Table 22 below and illustrated on Plan 6196/ECO7.

Table 23 - Summary of reptile survey findings

Visit	Date	Common Lizard		Slow Worm		Grass Snake		Other Species
		Adult	Juv.	Adult	Juv.	Adult	Juv.	
1	06/09/2021	0	0	9	3	0	0	0
2	09/09/2021	0	0	3	4	1	0	0
3	13/09/2021	1	0	3	3	0	0	0
4	18/09/2021	1	0	1	2	0	0	0
5	20/09/2021	0	0	1	0	0	0	0
6	23/09/2021	0	0	2	2	0	0	0
7	27/09/2021	0	0	0	2	0	0	0
Peak Count		1		9		1		

5.7.4 **Evaluation and Assessment of Likely Effects.** A peak count of nine Slow Worm, one Common Lizard and one Grass Snake were recorded during the survey work undertaken, with the majority of animals recorded along hedgerow H3 on the eastern site boundary (transect H). Reptiles were recorded widely across the site periphery (see Plan 6196/ECO7). The area of suitable reptile habitat at the site measures c0.9ha and therefore the peak count equates to a population of ten Slow Worm, one Common Lizard and one Grass Snake per hectare, which corresponds to a low population of each species under the standard guidance²⁵. As such, it is considered that the population of reptiles supported by the study area is of importance at the local level only. The majority of suitable reptile habitat within the site is associated with habitat around the site boundary and is to be retained under the proposals within the proposed open space, which provides a buffer between the development and the site boundary. Nonetheless, certain areas of suitable reptile habitat (particularly towards the eastern site boundary) fall within the proposed development area and as such necessary mitigation measures are included at Chapter 6 below in order to ensure that the conservation status of local reptile populations is maintained post-development.

5.7.5 EAS¹ have advised that a reptile mitigation strategy should be provided prior to commencement of works. This would identify and delineate areas of reptile habitat accordingly. This could be delivered as a condition of approved planning permission.

²⁴ Froglife (1999) ‘Froglife Advice Sheet 10: reptile survey. Froglife, London’.

²⁵ Herpetofauna Groups of Britain and Ireland (1998) ‘Evaluating local mitigation/translocation programmes: Maintaining Best Practice and lawful standards’

5.8 Water Vole and Otter

- 5.8.1 **Legislation.** Water Vole *Arvicola amphibius* is fully protected under the Wildlife and Countryside Act 1981 (as amended). Water Vole is also a S41 Priority Species. As such, this species is considered to represent an important ecological feature. The legislation affords protection to individuals of the species and their breeding sites and places of shelter (see Appendix 6196/4 for detailed provisions). There is no provision under the Act for licensing what would otherwise be offences for the purpose of development. Such activities must be covered by the defence in the Act that permits otherwise illegal actions if they are the incidental result of a lawful operation and could not reasonably be avoided.
- 5.8.2 If, despite all reasonable efforts, properly authorised development will adversely affect Water Vole and there are no alternative habitats nearby, Natural England may issue a licence to trap and translocate Water Vole for the purpose of conservation. To issue such a licence, Natural England would need to be assured there is no reasonable alternative to the development and that there are no other practical solutions that would allow Water Vole to be retained at the same location. NE would also require assurance that the actions would make a positive contribution to Water Vole conservation.
- 5.8.3 Otter *Lutra lutra* 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 (as amended). Such legislation affords protection to individuals of the species and their breeding sites and places of rest (see Appendix 6196/4 for detailed provisions). Otter is also a S41 Priority Species. On this basis, Otter is considered to represent an important ecological feature.
- 5.8.4 **Background Records.** No records of Water Vole or Otter from the last 20 years were returned by KMBRC for within the site or within the wider 2km search area.
- 5.8.5 **Survey Results and Evaluation.** A stream runs past south-eastern corner of the site, over 10m from the site boundary at its closest point. However, this feature is small and likely subject to fluctuating water levels, while the section within the vicinity of the site is also heavily shaded in places. As such, this feature is not considered suitable for either Water Vole or Otter, neither of which would be affected by the proposals.

5.9 Other Mammals

- 5.9.1 **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.
- 5.9.2 **Background Records.** No specific records of other mammals from within or adjacent to the site were returned from the desktop study. A number of records of Hedgehog *Erinaceus europaeus* (Priority Species) were returned from within the search area around the site, including several records within the 1km x 1km OS grid squares overlapping the eastern edge of the site, while a single record of Brown Hare *Lepus europaeus* (also a Priority Species) was returned, recorded at a grid reference located approximately 1.4km to the south of the site, recorded in 2010.
- 5.9.3 **Survey Results and Evaluation.** No evidence of any other protected, rare or notable mammal species was recorded within the site. Rabbit, Field Vole *Microtus agrestis*, Wood Mouse and Common Shrew *Sorex Araneus* were also recorded on site, while other species

such as Fox *Vulpes vulpes* may also occur. All of these species remain common in both a local and national context, and as mentioned above do not receive specific legislative protection in a development context. As such, these species are not a material planning consideration and the loss of potential opportunities for these species to the proposals is of negligible significance.

- 5.9.4 The desktop study returned background records of Hedgehog within the surrounding area. Hedgehog is a Priority Species, albeit this species remains common and widespread in England. The site offers potential opportunities for this species, particularly in the form of areas of the rank grassland, hedgerows, woodland and denser scrub, although habitats are unlikely to be of importance in a local context, and Hedgehog is considered to be of importance at a site level only. The vast majority of these areas are retained under the proposals. Abundant similar opportunities are present within the local area and there is no evidence to suggest the proposals will significantly affect local populations of this species. However, it is recommended that precautionary safeguards are put in place to minimise the risk of harm to Hedgehog in the event this species is present, as described in Chapter 6 below.

5.10 Birds

- 5.10.1 **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 6196/4 for detailed provisions).
- 5.10.2 **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 status²⁶. 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.
- 5.10.3 **Background Records.** Information from the data search included records for several bird species in the vicinity of the site, including the Red Listed species Lesser Spotted Woodpecker *Dendrocopus minor*, Woodcock *Scolopax rusticola*, Black Redstart *Phoenicurus ochruros*, Redwing *Turdus iliacus*, Skylark, House Sparrow, Tree Sparrow *Passer montanus*, Fieldfare *Turdus pilaris* and Song Thrush *Turdus philomelos*, many of which are also all Priority Species. None of the records originate specifically from within the site itself, albeit a number of these records originate from the 1km x 1km OS grid square overlapping the eastern edge of the site. Incidental records of Barn Owl *Tyto alba* have also been noted from the wider area.
- 5.10.4 **Survey Results.** Several species of bird were observed within the site during the Phase 1 survey including: Wood Pigeon *Columba palumbus*, Feral Pigeon *Columba livia domestica*, Blackbird *Turdus merula*, House Sparrow, Great Tit *Parus major*, Goldfinch *Carduelis carduelis*, Whitethroat *Sylvia communis* and Blue Tit *Cyanistes caeruleus*. In addition, Feral Pigeon was noted nesting within building **B4**. No evidence of other bird species, including

²⁶ 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

Barn Owl, having nested within any building on site was found during internal building inspections undertaken during the bat surveys.

5.10.5 Breeding bird surveys undertaken in 2023 noted the presence of the Red List species Greenfinch *Chloris chloris*, Skylark, Linnets and Yellowhammer. Evidence for breeding Linnets, Greenfinch comprised singing males in suitable habitats. Given that these three species are hedgerow breeding birds and hedgerows within the site will be retained and enhanced, adverse effects are not anticipated. A single singing male Skylark was observed in the northern field on the earlier July survey date. The fact that this was a single skylark and was only observed once during six bird surveys would indicate that this species is not breeding on site. Extensive suitable Skylark breeding habitat is present in open fields beyond the site boundary in the wider area. Amber Listed species noted included Dunnock *Prunella modularis*, Stock Dove *Columba oenas*, Whitethroat, Woodpigeon and Wren.

5.10.6 **Evaluation.** Most of the birds recorded at the site are not listed as having any special conservation status, although House Sparrow, Linnets and Yellowhammer are included on the Red list as a result of declines in UK breeding populations and are also Priority Species. However, the habitats present are common in the surrounding area and there is no evidence to suggest the site is of elevated value at a local level for these species, which in any case, are common in Great Britain²⁷. The proposals will result in the loss of the on-site buildings along with several sections of hedgerow (to facilitate site access) and may also result in the loss of other nesting habitat such as scrub. Hedgerow and scrub habitat would be provided and enhanced as part of the delivery of Biodiversity Net Gain for the scheme which is calculated to exceed 20% for area habitats and hedgerows. This could potentially affect any nesting birds that may be present at the time of works and accordingly, a number of safeguards in respect of nesting birds are proposed, as detailed in Chapter 6 below. In the long-term, new nesting opportunities will be provided for birds as described in Chapter 6 below.

5.11 Invertebrates

5.11.1 **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 borellii 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 6.196/4 for detailed provisions. A number of invertebrates are also S41 Priority Species. Where such species are present, they should be assessed as important ecological features.

5.11.2 **Background Records.** No specific records of invertebrates were returned from within or adjacent to the site. A number of records of Priority Species of invertebrate were received from KMBRC including Red-shanked Carder-Bee *Bombus ruderarius*, Cinnabar *Tyria jacobaeae* and Small Blue *Cupido minimus*, with the closest record being for Cinnabar, recorded approximately 840m to the southeast of the site in 2005.

5.11.3 **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 short-grazed semi-improved grassland which is likely to support only a limited diversity of invertebrates. The site does contain small areas likely to be of some raised ecological value for invertebrates including ponds, areas of bare ground, hedgerows, occasional patches of scrub, areas of rank, tussocky grassland, log piles and varying topography in places. Indeed, solitary bees and ant hills were recorded on site within the area of semi-improved

²⁷ Population estimates of birds in Great Britain and the United Kingdom. Musgrove *et al.*, British Birds, 2013

grassland/tall ruderals, while further ant hills were recorded along hedgerow H7. Overall, 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 the site is not considered to support an important invertebrate assemblage. In any case, the development proposals retain substantial greenspace around the periphery of the site and as such the majority of more suitable invertebrate habitat is to be retained under the proposals, while the inclusion of new planting and pond creation is likely to provide new opportunities for invertebrates.

5.12 Summary

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

Table 24 - Summary of fauna forming important ecological features

Species / Group	Supported by or associated with the site	Level of Importance
Bats – Roosting	Confirmed presence within building B4	Local
Bats – Foraging / Commuting	Confirmed presence on site	Local
Badger	Potential habitat present, along with potential Badger sett.	Likely negligible, but precautionary safeguards required
Dormouse	Likely Absent	Negligible
Great Crested Newt	Potential breeding and terrestrial habitat present	Local/district
Reptiles	Confirmed presence on site	Local
Birds	Confirmed presence on site	Site

5.12.2 Other fauna likely to be supported by the site include non-priority species of mammals, amphibians and 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-MM13**) 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 42020:2019). EAS¹ have advised that such measures are collectively set out within a Landscape and Ecological Management Plan that can itself be conditioned.

Hedgerows and Trees

6.1.2 **MM1 – Hedgerow and Tree Protection.** All hedgerows and trees to be retained within the proposed development should 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.

Watercourses

6.1.3 **MM2 – Pollution Prevention.** A stream runs approximately 11m from the south-eastern corner of the site at its closest point, discharging into the River Beult SSSI to the south of the site, which is itself within 200m at its closest point. Post-development, the drainage system on site will ensure the watercourse is not subject to adverse changes in surface water run-off or quality. The removal of agricultural run-off from the land will likely be beneficial to receiving waters in terms of water quality.

Bats

6.1.4 **MM3 – Update Survey.** Should any considerable time (e.g. >2 years) elapse between the survey work detailed above and any development works, a further survey of the buildings with potential to support roosting bats should be undertaken prior to the commencement of works to confirm the continued absence of bats.

6.1.5 **MM4 – Removal of Roofs.** Removal of any roofs or other structures with potential to support or conceal roosting bats, in particular building **B4** (from which bats were seen emerging from the barn entrance) should be undertaken with care during favourable weather conditions (not during heavy rain, high winds or unseasonable low temperatures) and under an appropriate watching brief. Given the possible presence of roosting bats within this building, it is recommended that this work is carried out under a protected species licence which should be obtained from Natural England prior to building removal.

6.1.6 **MM5 – Felling of Trees Supporting Bat Roosting Potential.**

6.1.7 No trees supporting bat roosting potential have been identified for removal under the current layout, although should a need for works to these trees 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/or mitigation measures. Such measures may include climbing inspections to investigate potential roosting features and soft felling of trees under an ecological watching brief.

6.1.8 **MM6 – Sensitive Lighting.** Light-spill onto retained and newly created habitat, in particular the retained woodland, hedgerows and groups of trees will be minimised in accordance with good practice guidance²⁸ 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 buffers’ may be used to provide interconnected areas free of artificial illumination to allow bats to move around the site;
- **Appropriate luminaire specifications** – consideration should be given to the type of luminaires used, in particular luminaries should lack UV elements and metal halide and fluorescent sources should be avoided in preference for LED luminaries. A warm white spectrum (ideally <2,700K) should be adopted to reduce the blue light component;
- **Light barriers / screening** – 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 can minimise the area illuminated and allow bats to fly in the dark refuges between lights. Reducing the height of lighting can 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 may be considered for 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;
- **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;
- **Dimming and part-night lighting** – lighting control management systems can be used, which involves 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 such control systems 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.

Badger

6.1.9 **MM7 – Badger Update Survey.** Badgers are dynamic animals and levels of Badger activity can rapidly change at a site, with new setts being created at any time. Given the known presence of Badger in the landscape surrounding the site, and the presence of a mammal burrow within the site forming a potential Badger sett, it is recommended that an update survey is carried out prior to commencement of site works in order to confirm the current status of Badgers at the site.

²⁸ Bat Conservation Trust and Institute of Lighting Professionals (2018) ‘Guidance Note 08/18: Bats and artificial lighting in the UK’; 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.

6.1.10 **MM8 – Badger Construction Safeguards.** In order to safeguard Badger should they enter the site during construction works, the following measures should be implemented:

- Any trenches or excavations within the site that are to be left open overnight should be provided with a means of escape should a Badger enter. This could simply be in the form of a gently graded ramp or roughened plank of wood placed in the trench as a ramp to the surface. This is particularly important if the trench fills with water;
- Any temporarily exposed open pipes (>150mm outside diameter) should be blanked off at the end of each working day so as to prevent Badgers gaining access as may happen when contractors are off-site;
- Any trenches/pits should be inspected each morning to ensure no Badgers have become trapped overnight. Should a Badger become trapped in a trench it will likely attempt to dig itself into the side of the trench, forming a temporary sett. Should a trapped Badger be encountered a suitably qualified ecologist should be contacted immediately for further advice;
- The storage of topsoil or other 'soft' building materials in the site should be given careful consideration. Badgers will readily adopt such mounds as setts. So as to avoid the adoption of any mounds, these should be kept to a minimum and any essential mounds subject to daily inspections with consideration given to temporarily fencing any such mounds to exclude Badgers;
- The storage of any chemicals at the site should be contained in such a way that they cannot be accessed or knocked over by any roaming Badgers;
- Fires should only be lit in secure compounds away from areas of Badger activity and not allowed to remain lit during the night; and
- Unsecured food and litter should not be left within the working area overnight.

Reptiles

6.1.11 **MM9 – Reptile Translocation.** Low populations of Slow-worm, Common Lizard and Grass Snake have been recorded within the site. Due to the relatively high number of reptiles present towards the eastern site boundary, it is recommended that prior to any construction work being carried out a translocation exercise is undertaken to capture and relocate any reptiles that may be present within suitable habitats in this area, including the field-edge adjacent to hedgerow **H3**, tall ruderal vegetation and the area identified as semi-improved grassland/tall ruderals. In some areas, dense scrub may make it difficult to prepare the site for a translocation exercise. If this is the case a destructive search is proposed in order to clear areas of vegetation to install reptile/drift fencing (see MM10 below).

6.1.12 The translocation exercise would involve laying reptile/drift fencing and reptile refugia around the perimeters and across the development footprint. An ecologist should attend site daily, capturing any reptiles basking on/underneath the refugia and relocating them to a receptor site, which should be located within the retained open space. This should be conducted daily for a minimum of 30 days (30 survey visits) or until no reptiles have been captured for 5 consecutive days.

6.1.13 **MM10 – Destructive Search.** A destructive search may be required when preparing the site for the translocation exercise and as a measure to minimise the risk of harm to reptiles within suitable habitat elsewhere on site, should any activities be required which may disturb this habitat and harm reptiles if present (such as vehicle tracking or modification/removal of this habitat).

- 6.1.14 The destructive search would involve cutting the relevant vegetation (scrub, grassland or tall ruderal vegetation) 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. 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, should be fingertip-searched by an ecologist prior to being carefully disassembled. Any reptiles encountered during the destructive search would be carefully rescued by the supervising ecologist and relocated to suitable nearby habitat.

Hedgehogs

- 6.1.15 **MM11 – Hedgehog Safeguards.** In order to safeguard Hedgehogs and other small mammals should they enter the site during construction works, the following measures should be implemented:

- A watching brief should be maintained for Hedgehog and other small mammals throughout any clearance works;
- Any piles of material already present on site, particularly vegetation/leaves, etc. and any areas of dense scrub or hedgerows, should be dismantled/removed by hand and checked for Hedgehog prior to the use of any machinery/disposal;
- Any material to be disposed of by burning, particularly waste from vegetation clearance and tree works, should not be left piled on site for more than 24 hours in order to minimise the risk of Hedgehogs occupying the pile. If this cannot be avoided, material should be stored within a container such as a skip to prevent animals from gaining access. Any material which has been stored on the ground overnight should be moved prior to burning to allow a thorough check for any animals which may have been occupying the pile;
- In the event that an injured Hedgehog is found, the animal should be wrapped carefully in a towel, the British Hedgehog Preservation Society (BHPS) phoned (01584 890 801) and the Hedgehog taken to a local vet immediately;

- 6.1.16 **MM12 – Hedgehog Cut-outs.** To maintain connectivity throughout the site for Hedgehog and to allow access to suitable foraging habitat contained within residential gardens, small holes (13cmx13cm) should be created within garden fences or under gates.

Nesting Birds

- 6.1.17 **MM13 – 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.

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 – EE7**), the opportunity exists for the proposals to deliver a number of benefits for wildlife at the site. EAS¹ have advised that enhancement measures can be set out alongside mitigation within a Landscape and Ecological Management Plan that would be provided as a condition of planning permission.

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 on site, such as within the proposed open space or surrounding the proposed attenuation ponds. This would maximise opportunities for biodiversity under the proposals, whilst making a positive contribution towards the Kent Nature Partnership Biodiversity Strategy – 2020 to 2045, which lists lowland meadows as a priority. 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.
- 6.2.1 **EE3 – Wetland Features.** The Illustrative Masterplan incorporates two new Sustainable Drainage Systems (SuDS) features as part of the greenspace in the south of the site. It is understood that the SuDS basins can be designed to incorporate permanent standing water (e.g. through over-excavation), which could therefore be designed to be of value to wildlife and include elements such as sinuous margins (to create a variety of conditions and micro-climates which would encourage a broad range of invertebrates to colonise), gently sloping margins (which are favoured by amphibians) and conditions to allow abundant marginal and aquatic vegetation to develop. Creation of such habitats would provide opportunities for a range of wildlife such as amphibians and invertebrates, while also helping to attenuate surface water run-off.

Bats

- 6.2.2 **EE4 - Bat Boxes.** A number of bat boxes will 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

- 6.2.3 **EE5 – Bird Boxes.** It is recommended that a number of bird nesting boxes be provided. A proportion of these should be sited on suitable, retained trees, situated as high up as possible. In addition, where possible nesting bricks/boxes should be incorporated within the design of the new buildings, in order to offer nesting opportunities for declining species such as House Sparrow (Priority Species) and Swift *Apus apus* (Red Listed species). The precise number and locations of nesting bricks/boxes should be determined by a competent ecologist, post-planning once the relevant final development design details have been approved.

Invertebrates

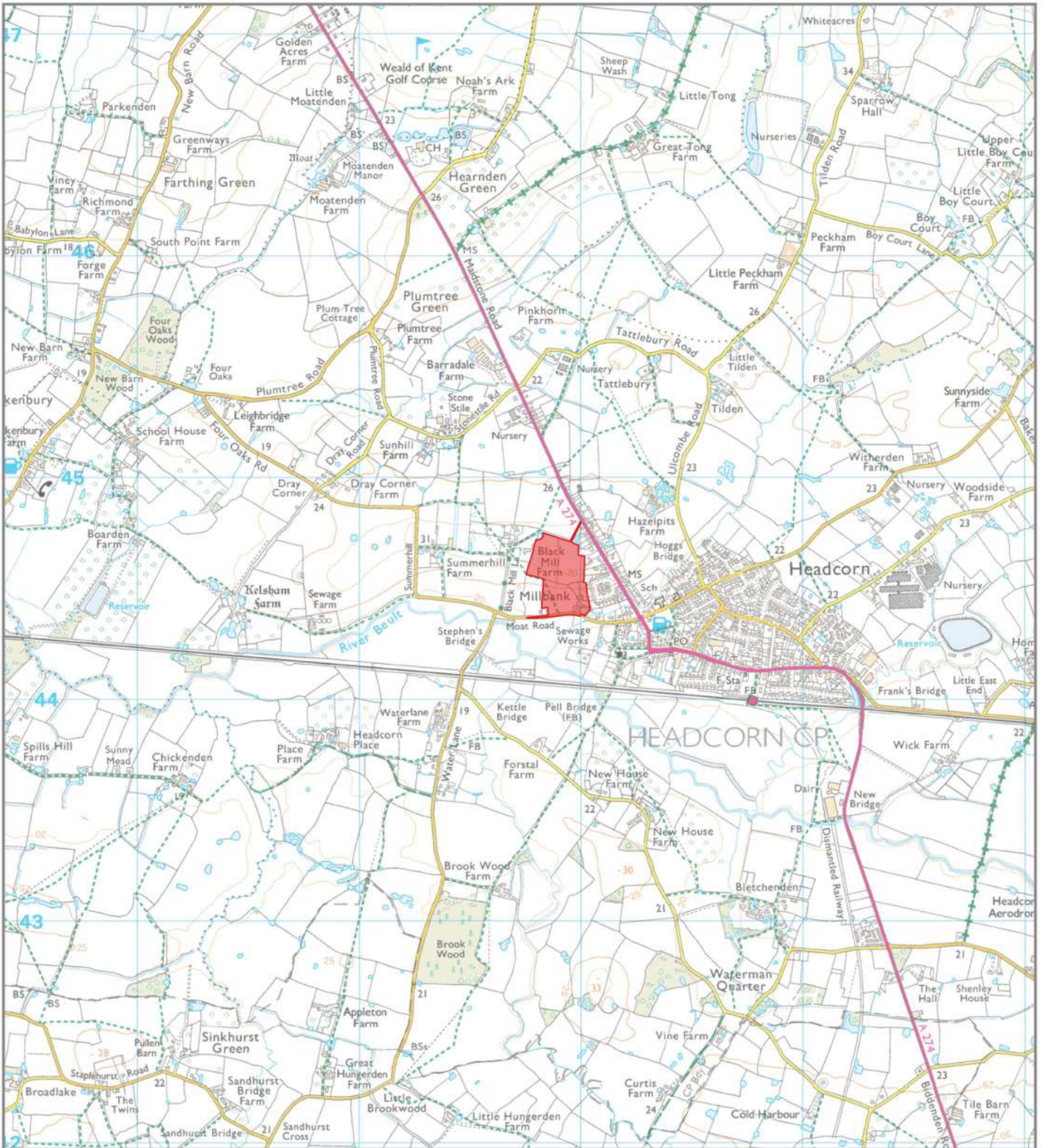
- 6.2.4 **EE6 – Habitat Piles.** A proportion of any deadwood arising from vegetation clearance works should be retained within the site in a number of wood piles located within areas of new planting, new wetland habitats or areas of wildflower grassland in order to provide potential habitat opportunities for invertebrate species, which in turn could provide a prey source for a range of other wildlife. In addition, the provision and management of new native landscape planting will likely provide additional opportunities for invertebrates at the site in the long term.
- 6.2.5 **EE7 – Bee Bricks.** It is recommended that a number of bee bricks be incorporated within the proposed development thereby increasing nesting opportunities for declining populations of non-swarming solitary bee populations. Ideally, bee bricks should be located within suitable south-facing walls (where architectural design allows), located at least 1m off the ground. The bricks should be unobstructed by vegetation, though within close vicinity of nectar and pollen sources.

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.
- 7.1.3 Surveys have 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. Where it has not been practicable to avoid loss of habitats, new habitat creation has been proposed to offset losses, in conjunction with the landscape proposals.
- 7.1.4 The habitats within the site support protected species, some of which are protected under national and European legislation. Accordingly, a range 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. Ecological enhancement measures have been proposed to deliver benefits to biodiversity alongside the development.
- 7.1.5 In conclusion, the proposals have sought to minimise impacts and maximise benefits. Subject to the implementation of the recommended avoidance, mitigation and compensation measures, it is considered unlikely that the proposals will result in harm to biodiversity. Alongside the proposals, the opportunity exists to provide a number of ecological enhancements which will deliver benefits for biodiversity.

Plan 6196/ECO1:

Site Location



Key:

Site Location



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Land North of Moat Road,
 Headcorn
 Site Location

6196/ECO1

B/AM

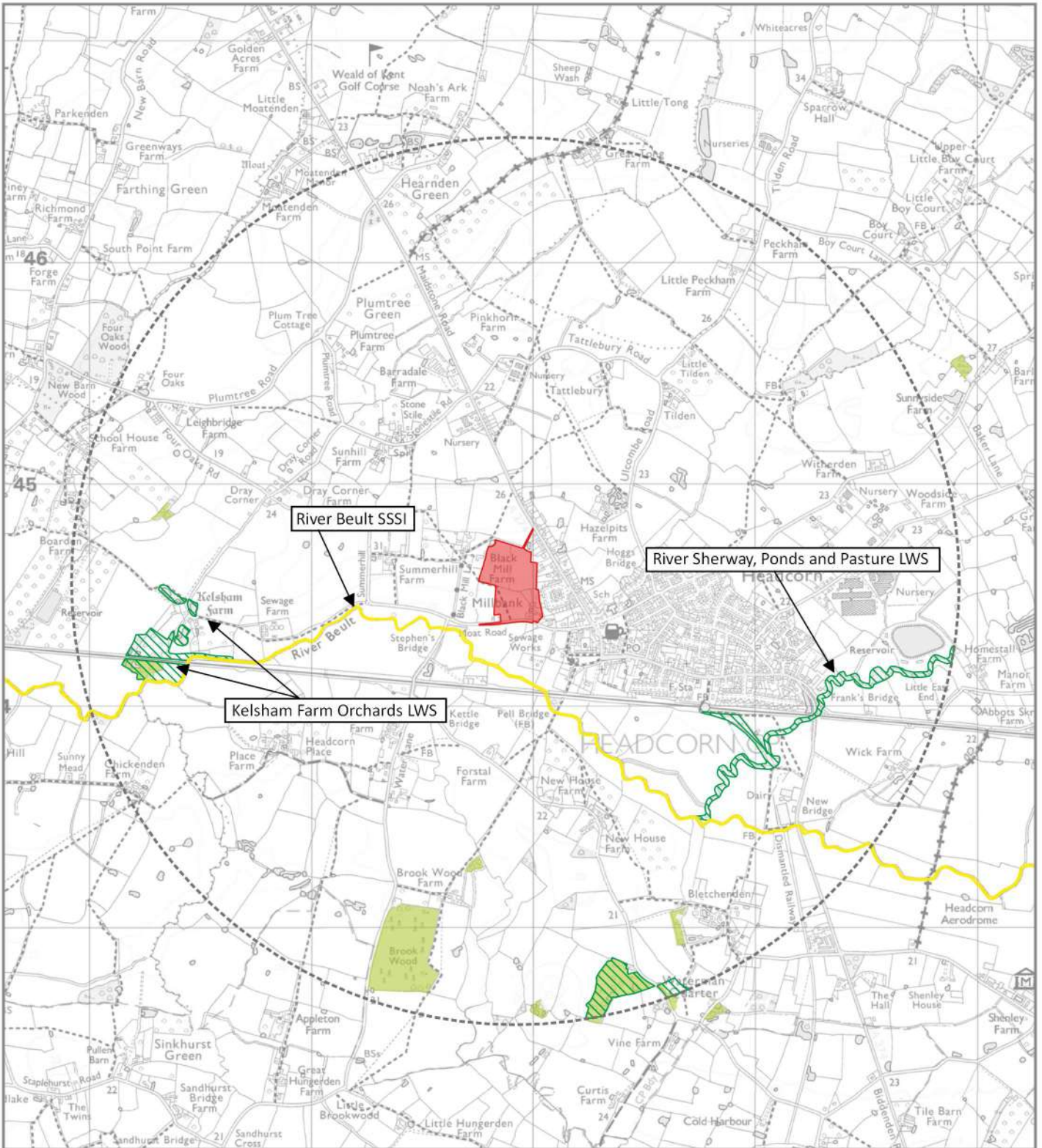
November 2022

PROJECT
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 DATE



Plan 6196/ECO2:

Ecological Designations



Key:

- Site Location
- Site of Special Scientific Interest (SSSI)
- Ancient Semi-natural Woodland (ASW)
- Local Wildlife Site (LWS)
- Local Records Centre 2km Search Area



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 Ecological Designations

6196/ECO2

B/AM

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Plan 6196/ECO3:

Habitats and Ecological Features



- Key:**
- Site Boundary
 - Bare Ground
 - Bramble Scrub
 - Building
 - Hardstanding
 - Mixed Scrub
 - Ponds
 - Roadside Verge
 - Semi-Improved Grassland
 - Semi-Improved Grassland Tall Ruderals
 - Short-grazed Semi-improved grassland
 - Tall Ruderal
 - Woodland
 - Hedgerow
 - Tree
 - Tree with low bat roosting potential
 - Tree with moderate bat roosting potential
 - Tree with moderate-high bat roosting potential
 - x Scattered scrub
 - ★ Potential badger sett

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Land North of Moat Road,
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 Habitats and Ecological Features

6196/ECO3



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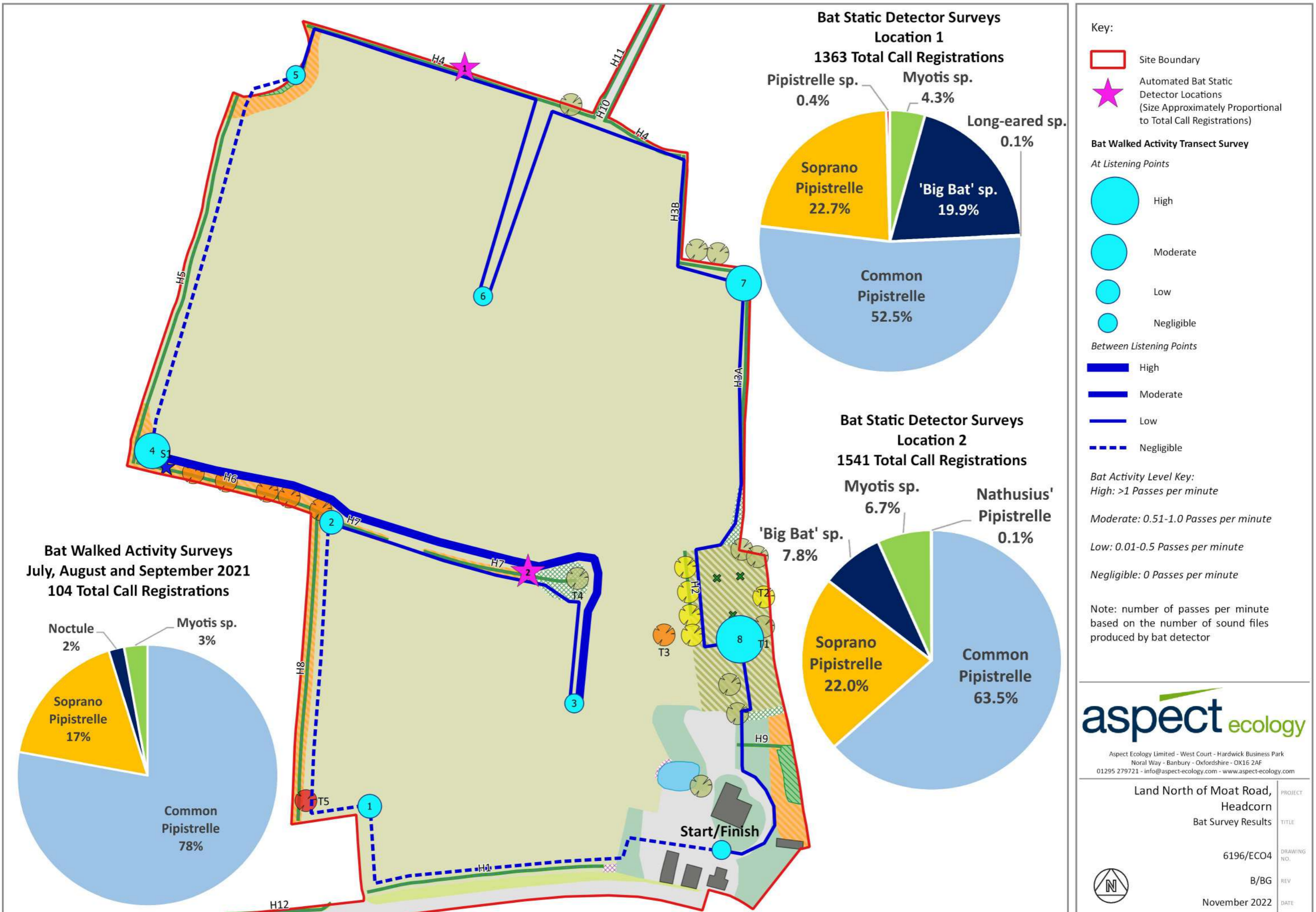
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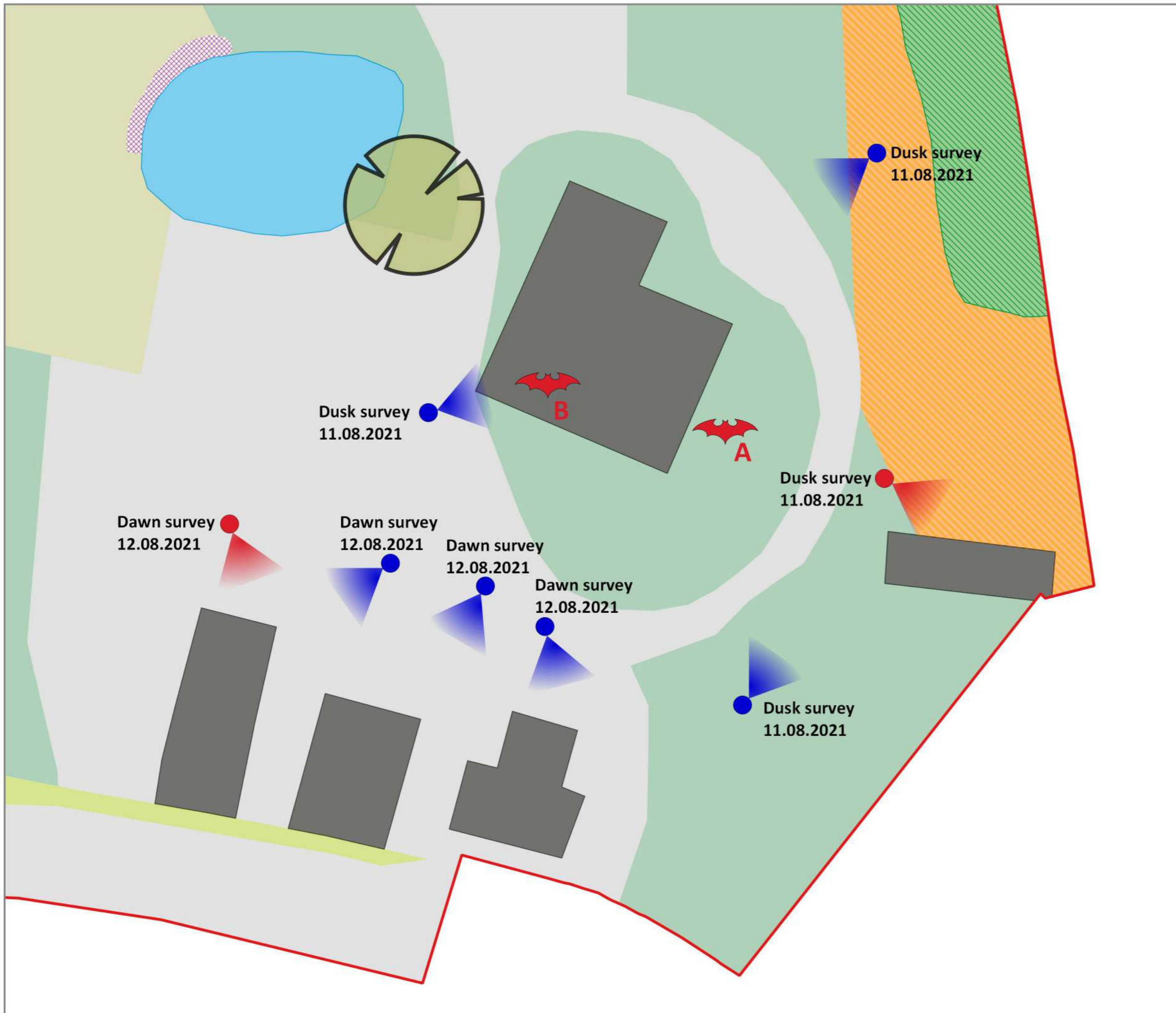
Plan 6196/ECO4:

Bat Survey Results



Plan 6196/ECO5:

Bat Emergence/Re-entry Survey Results



Key:

 Site Boundary

Emergence/Re-entry Surveys

 IR Camera

 Surveyor

 Bat Access Points

aspect ecology

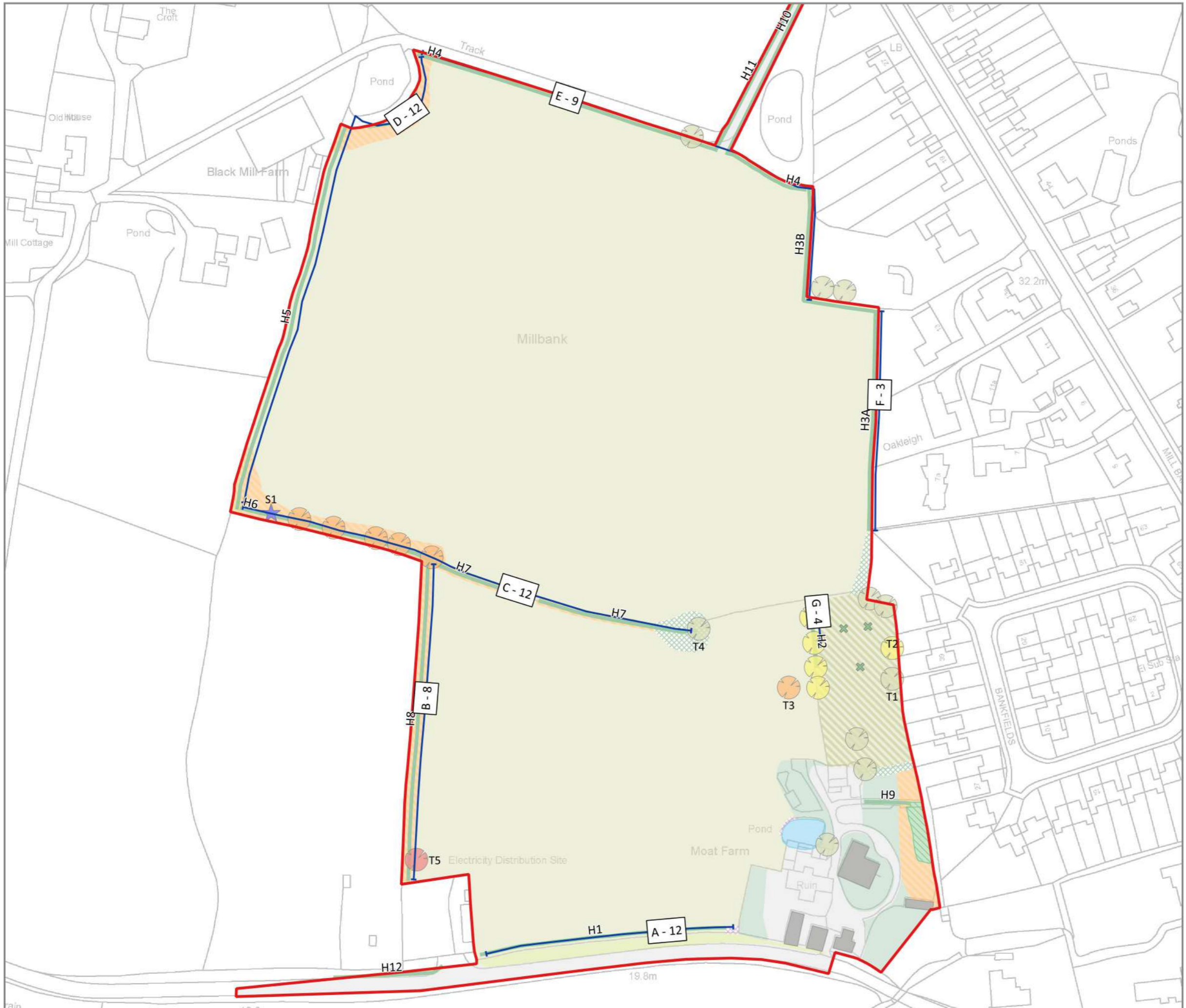
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Bat Emergence/Re-entry Survey Results	TITLE
6196/EC05	DRAWING NO.
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November 2022	DATE



Plan 6196/ECO6:

Dormouse Transects



- Key:
- Site Boundary
 - Dormouse Transect



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Land North of Moat Road,
 Headcorn
 Dormouse Transects

6196/ECO6

B/BG

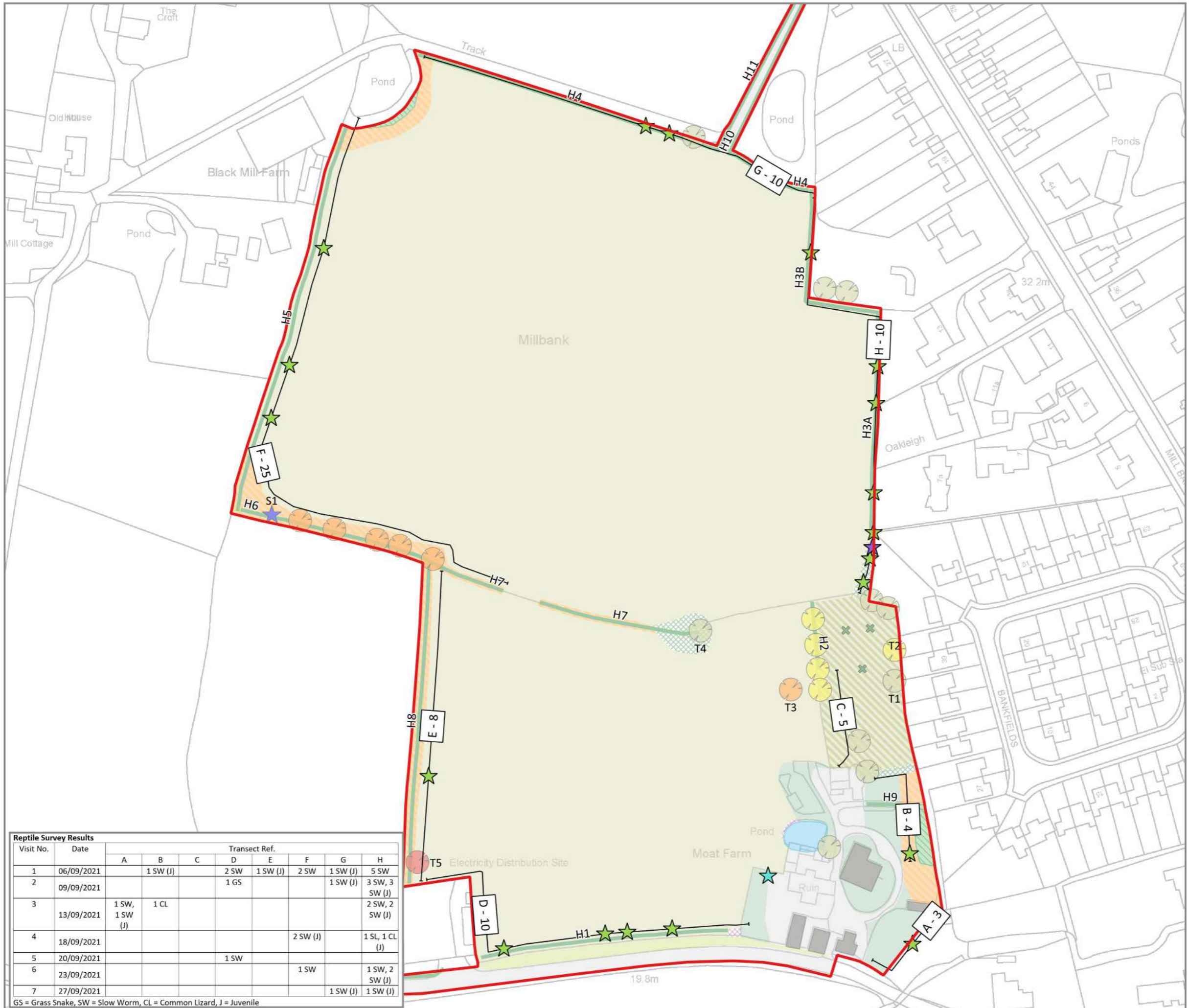
November 2022



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Plan 6196/ECO7:

Reptile Survey Results



- Key:**
- Site Boundary
 - Reptile Transect
 - ★ Common Lizard
 - ★ Grass Snake
 - ★ Slow Worm

Reptile Survey Results

Visit No.	Date	Transect Ref.							
		A	B	C	D	E	F	G	H
1	06/09/2021		1 SW (J)		2 SW	1 SW (J)	2 SW	1 SW (J)	5 SW
2	09/09/2021				1 GS			1 SW (J)	3 SW, 3 SW (J)
3	13/09/2021	1 SW, 1 SW (J)	1 CL						2 SW, 2 SW (J)
4	18/09/2021					2 SW (J)			1 SL, 1 CL (J)
5	20/09/2021				1 SW				
6	23/09/2021					1 SW			1 SW, 2 SW (J)
7	27/09/2021							1 SW (J)	1 SW (J)

GS = Grass Snake, SW = Slow Worm, CL = Common Lizard, J = Juvenile



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

Land North of Moat Road,
 Headcorn
 Reptile Survey Results

6196/ECO7



B/BG

November 2022

Plan 6196/ECO8:

Breeding Bird Survey Results



Bird Species:

(B)	Blackbird
(BC)	Blackcap
(CC)	Chiffchaff
(GC)	Goldcrest
(GO)	Goldfinch
(PW)	Pied Wagtail
(R)	Robin
(D)	Dunnock
(SD)	Stock Dove
(WH)	Whitethroat
(WP)	Woodpigeon
(WR)	Wren
(GR)	Greenfinch
(L)	Linnet
(S)	Skylark
(Y)	Yellowhammer

Key:

[Red Outline]	Site Boundary
(Red Circle)	BOCC Red List Species (Possible/Probable Breeding)
(Orange Circle)	BOCC Red List Species (Possible/Probable Breeding)
(Green Circle)	BOCC Red List Species (Possible/Probable Breeding)



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Land North of Moat Road,
 Headcorn
 Breeding Bird Survey

6196/BBS

A/BG

September 2023



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Appendix 6196/1:

Illustrative Masterplan



Romsey T: 01794 367703
 Portishead T: 01275 407000
 Camberley T: 01276 749050
 F: 01794 367276 F: 01794 367276 F: 01794 367276

Rev	Description	Date	Au	Ch
A	Planning Issue	08.11.22	VL/6	-/-
A1	Revised Layout	22.08.23	VL/HP	
A2	Amendments	29.08.23	VL/HP	

Project	Moat Road, Headcorn		
Drawing	Sketch Layout Master Plan - 01		
Client	CATESBY ESTATES PLC		
Job no.	CATE211030	Date	08.11.22
Dwg no.	SKMP-01	Rev.	A2
Author	VL/HP	Checked	-/-
Status	PLANNING	Scale	1:1000@A0
Client ref.	-	Office	Romsey

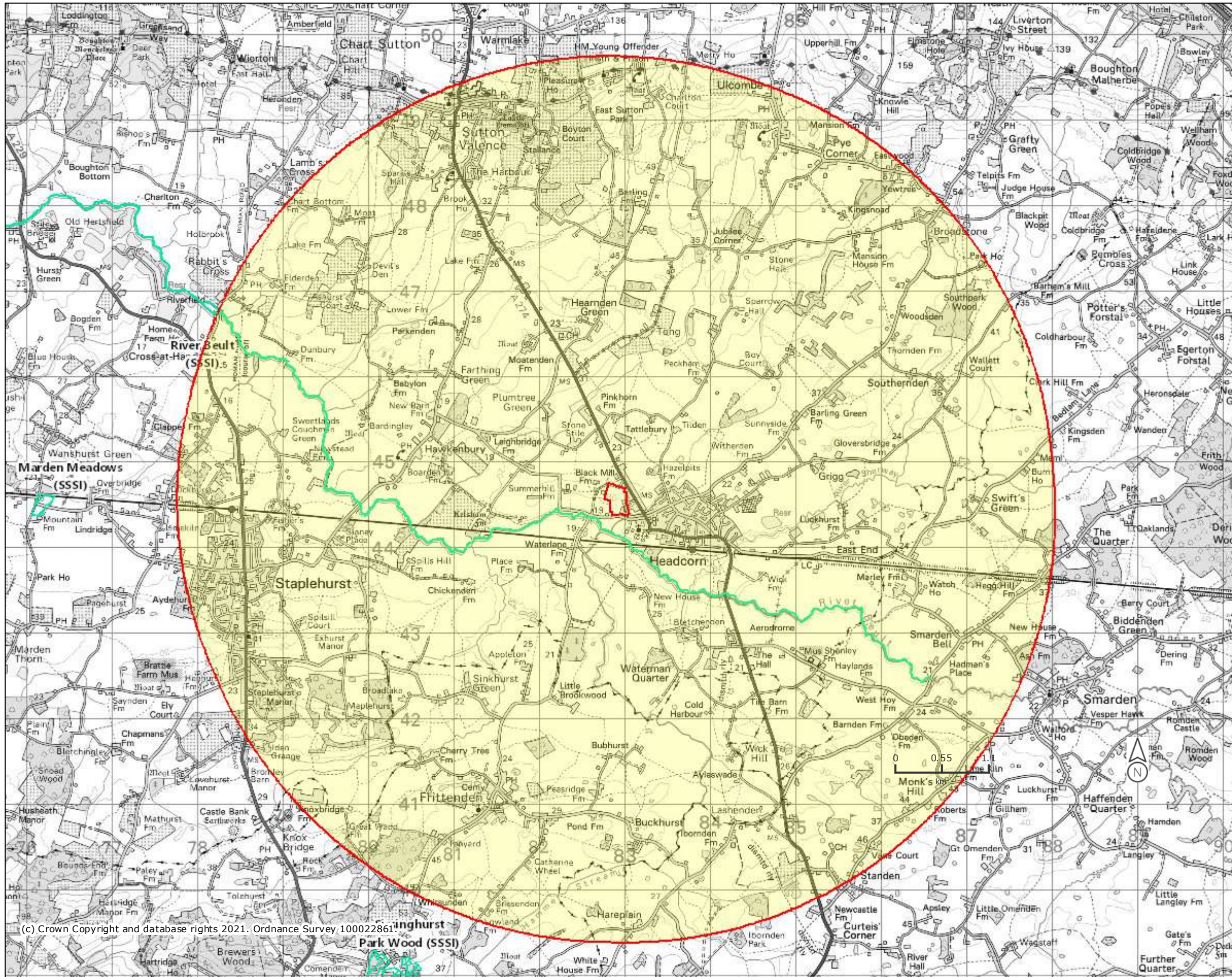
www.thrivearchitects.co.uk

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Appendix 6196/2:

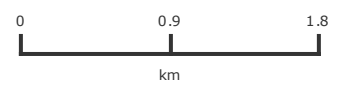
Desk Study Data



Legend

-  Sites of Special Scientific Interest (England)

Projection = OSGB36
 xmin = 571500
 ymin = 138800
 xmax = 594500
 ymax = 150500



Map produced by MAGIC on 22 November, 2021.
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22/11/2021, 11:29

Site Check Report Report generated on Mon Nov 22 2021
You selected the location: Centroid Grid Ref: TQ82894456
The following features have been found in your search area:

Sites of Special Scientific Interest (England)

Name	River Beult SSSI
Reference	1000110
Natural England Contact	NULL
Natural England Phone Number	0845 600 3078
Hectares	29.07
Citation	1005993
Hyperlink	http://designatedsites.naturalengland.org.uk/SiteDetail.aspx?SiteCode=s1005993

Site Check Report Report generated on Mon Nov 22 2021
You selected the location: Centroid Grid Ref: TQ82894456
The following features have been found in your search area:

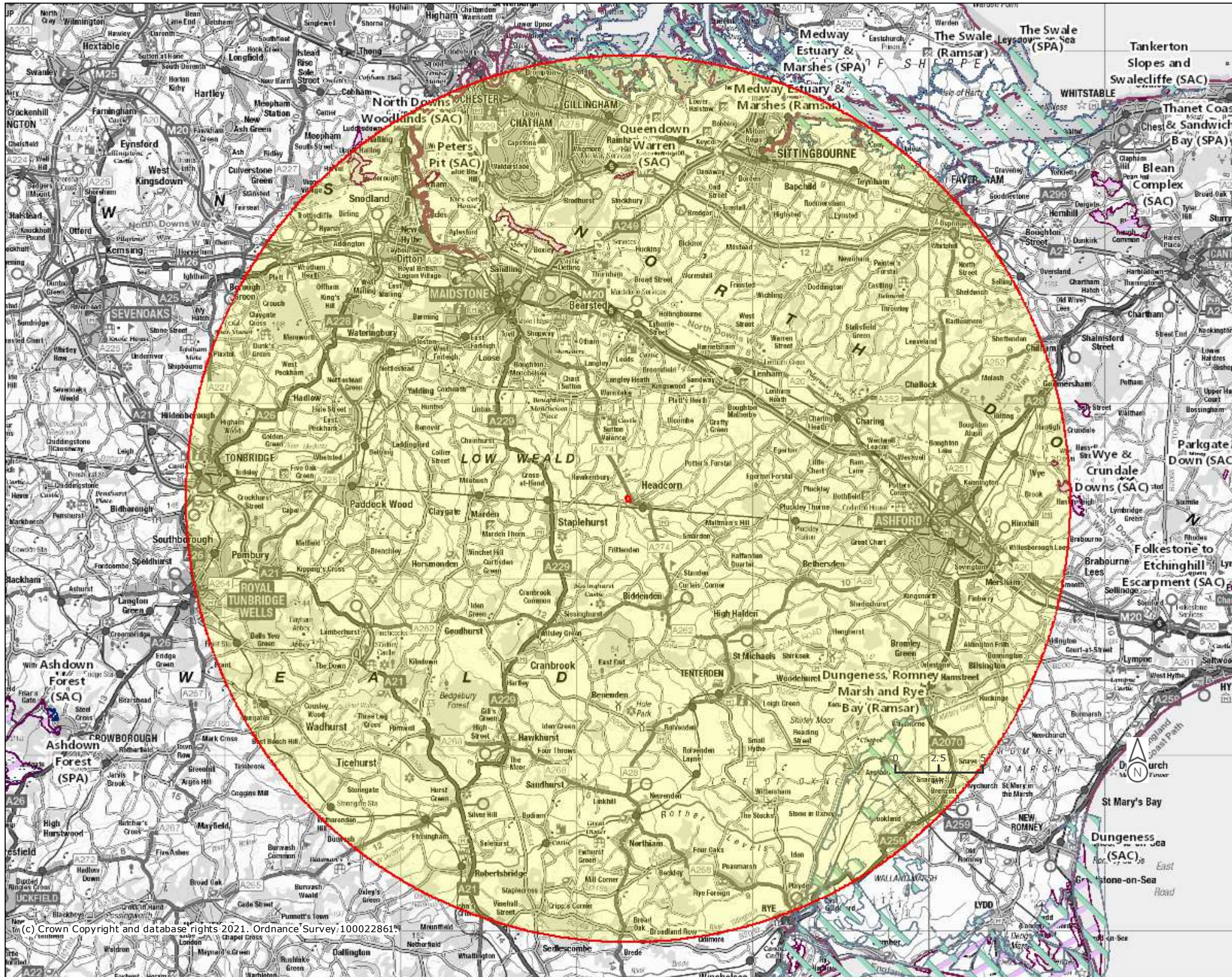
SSSI Impact Risk Zones - to assess planning applications for likely impacts on SSSIs/SACs/SPAs & Ramsar sites (England)

1. DOES PLANNING PROPOSAL FALL INTO ONE OR MORE OF THE CATEGORIES BELOW? **2. IF YES, CHECK THE CORRESPONDING DESCRIPTION(S) BELOW. LPA SHOULD CONSULT NATURAL ENGLAND ON LIKELY RISKS FROM THE FOLLOWING:**

All Planning Applications	
Infrastructure	Pipelines, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals.
Wind & Solar Energy	
Minerals, Oil & Gas	Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.
Rural Non Residential	Large non residential developments outside existing settlements/urban areas where net additional gross internal floorspace is > 1,000m ² or footprint exceeds 0.2ha.
Residential	Residential development of 100 units or more.
Rural Residential	Any residential development of 50 or more houses outside existing settlements/urban areas.
Air Pollution	Any development that could cause AIR POLLUTION (incl: industrial/commercial processes, livestock & poultry units, slurry lagoons & digestate stores, manure stores).
Combustion	All general combustion processes. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.
Waste	Mechanical and biological waste treatment, inert landfill, non-hazardous landfill, hazardous landfill, household civic amenity recycling facilities construction, demolition and excavation waste, other waste management.
Composting	Any composting proposal. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.
Discharges	Any discharge of water or liquid waste that is discharged to ground (ie to seep away) or to surface water, such as a beck or stream.
Water Supply	Large infrastructure such as warehousing / industry where net additional gross internal floorspace is > 1,000m ² or any development needing its own water supply .
Notes 1	
Notes 2	
GUIDANCE - How to use the Impact Risk Zones	/Metadata_for_magic/SSSI IRZ User Guidance MAGIC.pdf

1. DOES PLANNING PROPOSAL FALL INTO ONE OR MORE OF THE CATEGORIES BELOW? **2. IF YES, CHECK THE CORRESPONDING DESCRIPTION(S) BELOW. LPA SHOULD CONSULT NATURAL ENGLAND ON LIKELY RISKS FROM THE FOLLOWING:**

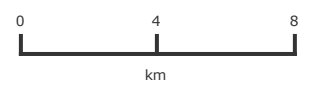
All Planning Applications	
Infrastructure	Pipelines, pylons and overhead cables. Any transport proposal including road, rail and by water (excluding routine maintenance). Airports, helipads and other aviation proposals.
Wind & Solar Energy	
Minerals, Oil & Gas	Planning applications for quarries, including: new proposals, Review of Minerals Permissions (ROMP), extensions, variations to conditions etc. Oil & gas exploration/extraction.
Rural Non Residential	Large non residential developments outside existing settlements/urban areas where net additional gross internal floorspace is > 1,000m ² or footprint exceeds 0.2ha.
Residential	Residential development of 50 units or more.
Rural Residential	Any residential development of 10 or more houses outside existing settlements/urban areas.
Air Pollution	Any development that could cause AIR POLLUTION or DUST either in its construction or operation (incl: industrial/commercial processes, livestock & poultry units, slurry lagoons & digestate stores, manure stores).
Combustion	All general combustion processes. Incl: energy from waste incineration, other incineration, landfill gas generation plant, pyrolysis/gasification, anaerobic digestion, sewage treatment works, other incineration/ combustion.
Waste	Mechanical and biological waste treatment, inert landfill, non-hazardous landfill, hazardous landfill, household civic amenity recycling facilities construction, demolition and excavation waste, other waste management.
Composting	Any composting proposal. Incl: open windrow composting, in-vessel composting, anaerobic digestion, other waste management.
Discharges	Any discharge of water or liquid waste that is discharged to ground (ie to seep away) or to surface water, such as a beck or stream.
Water Supply	Large infrastructure such as warehousing / industry where net additional gross internal floorspace is > 1,000m ² or any development needing its own water supply .
Notes 1	
Notes 2	
GUIDANCE - How to use the Impact Risk Zones	/Metadata_for_magic/SSSI IRZ User Guidance MAGIC.pdf



Legend

- Ramsar Sites (England)
- Special Areas of Conservation (England)
- Special Protection Areas (England)

Projection = OSGB36
 xmin = 527000
 ymin = 116600
 xmax = 638300
 ymax = 173300



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Site Check Report Report generated on Mon Nov 22 2021
You selected the location: Centroid Grid Ref: TQ82894456
The following features have been found in your search area:

Ramsar Sites (England)

Name THE SWALE
Reference UK11071
Hectares 6509.88

Name MEDWAY ESTUARY & MARSHES
Reference UK11040
Hectares 4697.93

Name DUNGENESS, ROMNEY MARSH AND RYE BAY
Reference UK11023
Hectares 7529.24

Special Areas of Conservation (England)

Name WYE & CRUNDALE DOWNS
Reference UK0012831
Hectares 113.12
Hyperlink <http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?euocode=UK0012831>

Name NORTH DOWNS WOODLANDS
Reference UK0030225
Hectares 287.35
Hyperlink <http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?euocode=UK0030225>

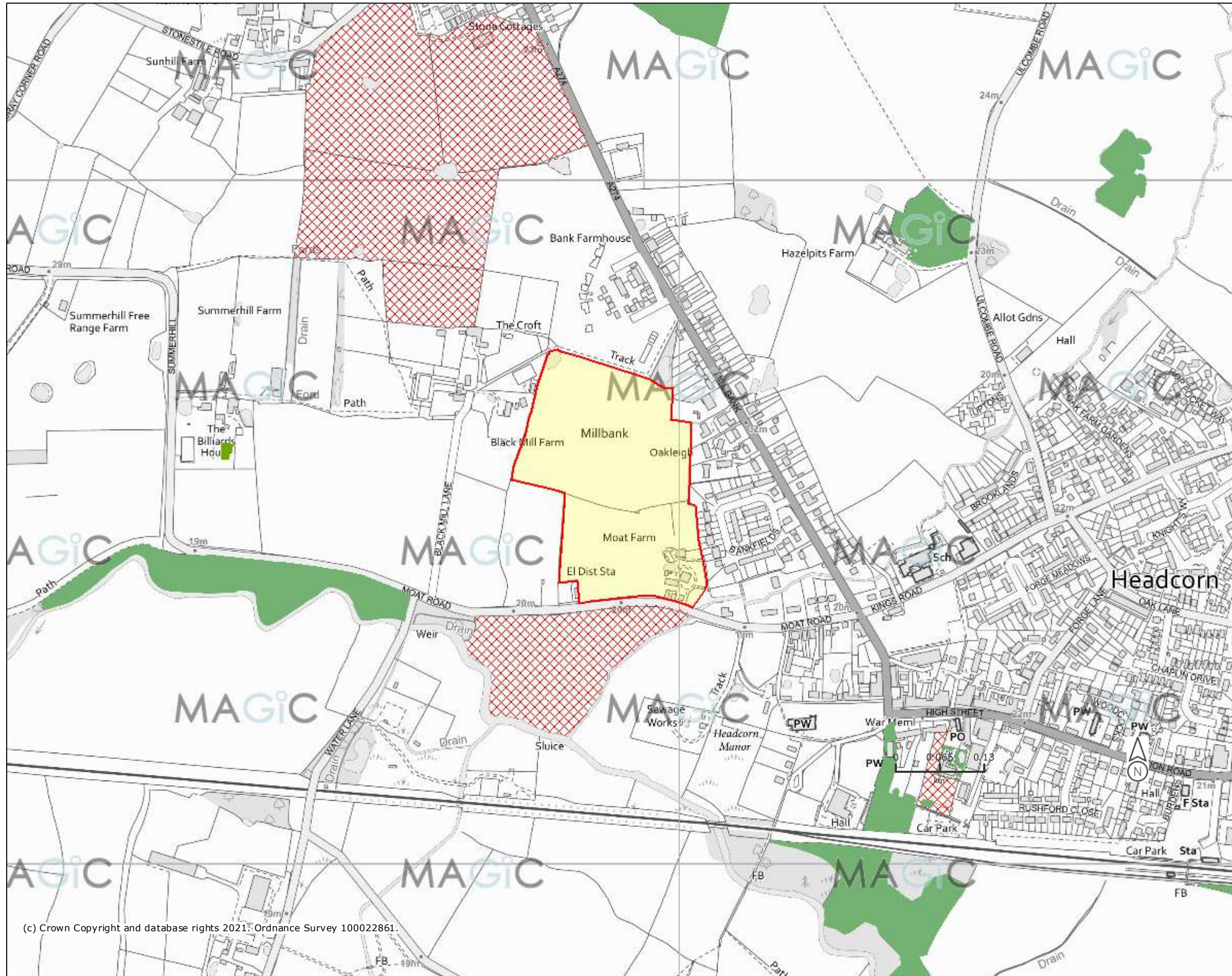
Name PETERS PIT
Reference UK0030237
Hectares 28.69
Hyperlink <http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?euocode=UK0030237>

Name QUEENDOWN WARREN
Reference UK0012833
Hectares 14.48
Hyperlink <http://jncc.defra.gov.uk/protectedsites/sacselection/sac.asp?euocode=UK0012833>

Special Protection Areas (England)

Name MEDWAY ESTUARY & MARSHES
Reference UK9012031
Hectares 4686.32

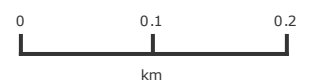
Name THE SWALE
Reference UK9012011
Hectares 6509.88



Legend

- Priority Habitat Inventory - Deciduous Woodland (England)
- Priority Habitat Inventory - Traditional Orchards (England)
- Priority Habitat Inventory - No main habitat but additional habitat exists (England)

Projection = OSGB36
 xmin = 581500
 ymin = 143800
 xmax = 584400
 ymax = 145300



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Appendix 6196/3:

Evaluation 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 6196/4:

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)
 - Protection of Badgers Act 1992
 - 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. **Protection of Badgers Act 1992.** The Act aims to protect the species from persecution, rather than being a response to an unfavourable conservation status, as the species is in fact common over most of Britain. It should be noted that the legislation is not intended to prevent properly authorised development. Under the Act it is an offence to:
 - Wilfully kill, injure, take, possess or cruelly ill-treat* a Badger, or attempt to do so;
 - To intentionally or recklessly interfere with a sett# (this includes disturbing Badgers whilst they are occupying a sett, as well as damaging or destroying a sett or obstructing access to it).

* the intentional elimination of sufficient foraging area to support a known social group of Badgers may, in certain circumstances, be construed as an offence

A sett is defined as “any structure or place which displays signs indicating current use by a Badger”. Natural England advice (June 2009) is that a sett is protected so long as such signs remain present, which in practice could potentially be for some time after the last actual occupation by Badger. Interference with a sett includes blocking tunnels or damaging the sett in any way
14. Licences can be obtained from the Statutory Nature Conservation Organisation (SNCO) for development activities that would otherwise be unlawful under the legislation, provided there is suitable justification. The SNCO for England is Natural England.
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 6196/5:

Manual Bat Activity Survey Results

Date: 19.07.21
 Survey Type: Dusk
 Transect Direction: Forwards

Listening point	From	To	Length (mins)
Start	20:47	20:53	6
Between Start and LP1	20:53	20:56	3
LP1	20:56	21:01	5
Between LP1 and LP2	21:01	21:04	3
LP2	21:04	21:09	5
Between LP2 and LP3	21:09	21:37	28
LP3	21:37	21:42	5
Between LP3 and LP4	21:42	21:48	6
LP4	21:48	21:53	5
Between LP4 and LP5	21:53	21:57	4
LP5	21:57	22:02	5
Between LP5 and LP6	22:02	22:25	23
LP6	22:25	22:31	6
Between LP6 and LP7	22:31	22:36	5
LP7	22:36	22:41	5
Between LP7 and LP8	22:41	22:49	8
LP8	22:49	22:54	5
Between LP8 and Start	22:54	22:57	3
Start	22:57	23:02	5

Date	Time	Species	*No. of registrations	Location (LP)
19/07/2021	21:34	Ppip	1	Between LP2 and LP3
19/07/2021	21:42	Noctule	2	Between LP3 and LP4
19/07/2021	21:46	Ppip	1	Between LP3 and LP4
19/07/2021	21:47	Ppip	7	Between LP3 and LP4
19/07/2021	21:48	Ppip	4	LP4
19/07/2021	21:52	Ppip	2	LP4
19/07/2021	22:17	Ppyg	1	Between LP5 and LP6
19/07/2021	22:33	Ppip	1	Between LP6 and LP7
19/07/2021	22:38	Ppyg	1	LP7
19/07/2021	22:39	Ppip	1	LP7
19/07/2021	22:44	Ppip	1	Between LP7 and LP8
19/07/2021	22:47	Ppip	1	Between LP7 and LP8
19/07/2021	22:47	Ppyg	1	Between LP7 and LP8
19/07/2021	22:49	Ppip	1	LP8
19/07/2021	22:55	Ppyg	1	Between LP8 and Start

Date: 11.08.21
 Survey Type: Dusk
 Transect Direction: Reverse

Listening point	From	To	Length (mins)
Start	20:28	20:33	5
Between LP8 and Start	20:33	20:35	2
LP8	20:35	20:40	5
Between LP7 and LP8	20:40	20:44	4
LP7	20:44	20:49	5
Between LP6 and LP7	20:49	20:53	4
LP6	20:53	20:58	5
Between LP5 and LP6	20:58	21:01	3
LP5	21:01	21:06	5
Between LP4 and LP5	21:06	21:08	2
LP4	21:08	21:13	5
Between LP3 and LP4	21:13	21:17	4
LP3	21:17	21:22	5
Between LP2 and LP3	21:22	21:24	2
LP2	21:24	21:29	5
Between LP1 and LP2	21:29	21:30	1
LP1	21:30	21:35	5
Between LP1 and LP8	21:35	21:39	4
LP8	21:39	21:44	5
Between LP7 and LP8	21:44	21:46	2
LP7	21:46	21:51	5
Between LP6 and LP7	21:51	21:52	1
LP6	21:52	21:57	5
Between LP5 and LP6	21:57	21:59	2
LP5	21:59	22:04	5
Between LP4 and LP5	22:04	22:05	1
LP4	22:05	22:10	5
Between LP3 and LP4	22:10	22:12	2
LP3	22:12	22:17	5
Between LP2 and LP3	22:17	22:18	1
LP2	22:18	22:23	5
Between LP1 and LP2	22:23	22:24	1
LP1	22:24	22:29	5

Date	Time	Species	*No. of registrations	Location (LP)
11/08/2021	20:49	Ppyg	1	Between LP6 and LP7
11/08/2021	21:09	Ppyg	1	LP4
11/08/2021	21:11	Ppip	1	LP4
11/08/2021	21:13	Ppip	3	Between LP3 and LP4
11/08/2021	21:14	Ppip	1	Between LP3 and LP4
11/08/2021	21:14	Ppyg	3	Between LP3 and LP4
11/08/2021	21:15	Myotis	1	Between LP3 and LP4
11/08/2021	21:15	Ppip	1	Between LP3 and LP4
11/08/2021	21:16	Ppip	1	Between LP3 and LP4
11/08/2021	21:16	Ppyg	3	Between LP3 and LP4
11/08/2021	21:25	Ppip	1	LP2
11/08/2021	21:25	Ppyg	1	LP2
11/08/2021	21:26	Ppip	1	LP2
11/08/2021	21:27	Ppip	3	LP2
11/08/2021	21:38	Ppip	4	Between LP1 and LP8
11/08/2021	21:39	Ppip	6	LP8
11/08/2021	21:40	Ppip	5	LP8
11/08/2021	21:41	Ppip	6	LP8
11/08/2021	21:42	Ppip	6	LP8
11/08/2021	21:43	Ppip	6	LP8
11/08/2021	21:44	Ppip	5	Between LP7 and LP8
11/08/2021	21:47	Ppip	1	LP7
11/08/2021	21:49	Ppip	3	LP7
11/08/2021	21:50	Ppip	1	LP7
11/08/2021	22:10	Ppyg	3	Between LP3 and LP4
11/08/2021	22:20	Myotis	1	LP2
11/08/2021	22:30	Ppyg	1	LP1

Date: 14.09.21
 Survey Type: Dusk
 Transect Direction: Forwards

Listening point	From	To	Length (mins)
Start	19:12	19:17	5
Between Start and LP1	19:17	19:20	3
LP1	19:20	19:25	5
Between LP1 and LP2	19:25	19:27	2
LP2	19:27	19:32	5
Between LP2 and LP3	19:32	19:36	4
LP3	19:36	19:41	5
Between LP3 and LP4	19:41	19:45	4
LP4	19:45	19:50	5
Between LP4 and LP5	19:50	19:53	3
LP5	19:53	19:58	5
Between LP5 and LP6	19:58	20:01	3
LP6	20:01	20:06	5
Between LP6 and LP7	20:06	20:08	2
LP7	20:08	20:13	5
Between LP7 and LP8	20:13	20:19	6
LP8	20:19	20:24	5
Between LP1 and LP8	20:24	20:30	6
LP1	20:30	20:35	5
Between LP1 and LP2	20:35	20:37	2
LP2	20:37	20:42	5
Between LP2 and LP3	20:42	20:44	2
LP3	20:44	20:48	4
Between LP3 and LP4	20:48	20:53	5
LP4	20:53	20:58	5
Between LP4 and LP5	20:58	21:01	3
LP5	21:01	21:06	5
Between LP5 and LP6	21:06	21:09	3
LP6	21:09	21:14	5

Date	Time	Species	*No. of registrations	Location (LP)
14/09/2021	19:46	Ppip	1	LP4
14/09/2021	20:08	Ppip	2	LP7
14/09/2021	20:10	Ppip	1	LP7
14/09/2021	20:12	Ppip	1	LP7
14/09/2021	20:23	Myotis	1	LP8
14/09/2021	20:23	Ppip	1	LP8
14/09/2021	20:57	Ppyg	1	LP4

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