

Wickham Hall Solar Farm, Uttlesford

## Ecological Appraisal

January 2024

Quality Management	
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# Contents

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## Text:

Executive Summary .....	1
1 Introduction .....	2
2 Methodology .....	3
3 Ecological Designations.....	8
4 Habitats and Ecological Features.....	10
5 Faunal Use of the Site .....	14
6 Mitigation Measures and Biodiversity Net Gains .....	21
7 Conclusions.....	26

## Plans:

Plan 5940/ECO1	Site Location
Plan 5940/ECO2	Ecological Designations
Plan 5940/ECO3	Habitats and Ecological Features
Plan 5940/ECO4	Pond Plan
Plan 5940/ECO5	Breeding Bird Survey Results

## Photographs:

Photographs 1-5

## Appendices:

Appendix 5940/1	Evaluation Methodology
Appendix 5940/2	Legislation Summary

## Executive Summary

- i) **Introduction.** Aspect Ecology was commissioned by Endurance Energy Wickham Hall Ltd in December 2022 to undertake an Ecological Appraisal in respect of the proposed development of land at Wickham Hall Estate, Uttlesford, Essex.
- ii) **Proposals.** The proposals are for development of the site to provide a new field-scale solar array, with associated battery storage and landscaping.
- iii) **Survey.** The site was previously surveyed in June 2020 with an update in January 2023 based on standard extended Phase 1 methodology. In addition, a general appraisal of faunal species was undertaken to record the potential presence of any protected, rare or notable species, with specific surveys conducted in respect of bats, Badger and Great Crested Newt. In addition, breeding bird surveys were undertaken in April, May and June 2023.
- iv) **Ecological Designations.** The site itself is not subject to any statutory or non-statutory ecological designations. The nearest statutory designation is Patmore Heath Site of Special Scientific Interest, located approximately 3.1km north-west of the site. The nearest non-statutory designations are Bloodhounds' Wood and Bailey Hills Local Wildlife Sites, located adjacent to the southern and north-eastern site boundaries respectively. All of the statutory ecological designations in the surrounding area are physically well separated from the site, whilst adjacent non-statutory designations will be buffered and safeguarded under the proposals, such that they will not be adversely affected by the proposals.
- v) **Habitats.** The site is dominated by arable land with narrow uncultivated field margins, with a track at the south of the site and hedgerows present at the field boundaries. The hedgerows represent important ecological features at the local level, and will be retained under the proposals and protected during the construction phase of the development. The remaining habitats within the site do not form important ecological features and their loss to the proposals is of negligible ecological significance.
- vi) **Protected Species.** The site generally offers limited opportunities for protected species and no evidence of any such species was recorded during the survey work. However, there is potential for protected mammal, amphibian and reptile species to pass through the site on occasion, and ground-nesting birds are known to be present within the site. As such, suitable mitigation strategies will be implemented to safeguard any species present during construction. In the long-term opportunities for ground nesting birds will be maintained, if not enhanced, under the proposals through new landscape planting and creation of new Skylark plots.
- vii) **Enhancements.** The proposals present the opportunity to secure biodiversity net gain, including new native woodland and hedgerow planting to improve connectivity between off-site woodland parcels to the north-east and south-west, the creation of areas of wildflower grassland and scrub, and a new wetland feature. In addition, new hibernacula for reptiles and amphibians, new roosting opportunities for bats, and more diverse nesting habitats for birds will be provided under the proposals.
- viii) **Summary.** In summary, the proposals have sought to minimise impacts on biodiversity and subject to the implementation of appropriate avoidance, mitigation and compensation measures, it is unlikely that the proposals will result in significant harm. On the contrary, significant biodiversity net gain will be achieved under the proposals.

# 1 Introduction

## 1.1 Background and Proposals

1.1.1 Aspect Ecology was commissioned by Endurance Energy Wickham Hall Ltd in December 2022 to undertake an Ecological Appraisal in respect of the proposed development of land at Wickham Hall Estate, Uttlesford centred at grid reference TL 46829 23231 (see Plan 5940/ECO1), hereafter referred to as 'the site'. Previous ecological survey work was carried out by Aspect Ecology in 2020 in connection with a wider study area that included the site.

1.1.2 The proposals are for development of the site to provide a new field-scale solar array, with associated battery storage and new landscaping, including a woodland belt, native hedgerow and shrub planting, wildflower grassland and wetland feature.

## 1.2 Site Overview

1.2.1 The site is located in west Essex within a rural context. The site is bound to the north by arable land beyond which lies further open countryside, whilst arable land and Bloodhounds' Wood (ancient woodland) bound the site to the south, beyond which lies the town of Bishop's Stortford. Further arable land bounds the site to the east and west.

1.2.2 The site itself comprises an arable field with narrow uncultivated field margins and hedgerows forming the boundary of part of the site.

## 1.3 Purpose of the Report

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

## 2 Methodology

### 2.1 Desktop Study

- 2.1.1 In order to compile background information on the site and its immediate surroundings the Herts Environmental Records Centre (HERC) and Essex Field Club were contacted in January 2023, with data requested on the basis of a search radius of 2km. Where information has been received from the above organisations this is reproduced on Plan 5940/ECO2, where appropriate.
- 2.1.2 Information on statutory designations was obtained from the online Multi-Agency Geographic Information for the Countryside (MAGIC) database, which utilises data provided by Natural England, with an extended search radius (25km). In addition, the MAGIC database was searched to identify the known presence of any Priority Habitats within or adjacent the site. Relevant information is reproduced on Plan 5940/ECO2, where appropriate.
- 2.1.3 In addition, the Woodland Trust database was searched for any records of ancient, veteran or notable trees within or adjacent to the site.

### 2.2 Habitat Survey

- 2.2.1 The site was surveyed previously surveyed in June 2020 and again in January 2023 in order to ascertain the general ecological value of the land contained within the boundaries of the site and to identify the main habitats and ecological features present.
- 2.2.2 The site was surveyed based on standard Phase 1 Habitat Survey methodology<sup>1</sup>, 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 Appraisal<sup>2</sup> to record details on the actual or potential presence of any notable or protected species or habitats.
- 2.2.3 Using the above method, the site was classified into areas of similar botanical community types, with a representative species list compiled for each habitat identified. The nomenclature used for plant species is based on the Botanical Society for the British Isles (BSBI) Checklist.

### 2.3 Faunal Surveys

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

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

<sup>2</sup> Chartered Institute for Ecology and Environmental Management (CIEEM) (2013) '*Guidelines for Preliminary Ecological Appraisal.*'

### Bats<sup>3</sup>

#### *Visual Inspection Surveys*

2.3.2 **Trees.** Trees were assessed for their suitability to support roosting bats based on the presence of features such as holes, cracks, splits or loose bark. Suitability for roosting bats was rated based on relevant guidance<sup>4</sup> as:

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

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

### Badger (*Meles meles*)<sup>5</sup>

2.3.4 A detailed Badger survey was carried out in January 2023. The survey comprised two main elements. The first element involved searching for evidence of Badger setts. 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.

### Great Crested Newt (*Triturus cristatus*)

#### *Environmental DNA (eDNA)*

2.3.5 An eDNA survey was carried out to determine the presence/absence of Great Crested Newt within all relevant water bodies within 250m<sup>6</sup> of the site boundary (based on a review of Ordnance Survey mapping and satellite imagery). Two off-site ponds, P1 and P2 were surveyed (see Plan 5940/ECO4). Water samples were collected on 17/05/2023 following the procedure outlined in the methods manual prepared for DEFRA by Biggs *et al.* (2014)<sup>7</sup>. The survey fell within the acceptable seasonal window set out by Natural England (15<sup>th</sup> April to 30<sup>th</sup> June)<sup>8</sup>. Samples were collected by suitably licensed Aspect Ecology staff. The water samples were sent for laboratory analysis which was conducted by 'Cellmark' and also followed the procedure set out by Biggs *et al.* (2014)<sup>14</sup>.

### Breeding Birds<sup>9</sup>

2.3.6 The use of the site by breeding birds was assessed over three survey visits, (on separate days) in April, May and June 2023. Birds present within the site were recorded using a

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

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

<sup>5</sup> Based on: Mammal Society (1989) '*Occasional Publication No. 9 – Surveying Badgers*'

<sup>6</sup> 250m is the typical maximum migratory range of this species, see English Nature (2004) '*An assessment of the efficiency of capture techniques and the value of different habitats for the great crested newt Triturus cristatus*'. English Nature Research Report 576

<sup>7</sup> Biggs J., Ewald N., Valentini A., Gaboriaud C., Griffiths R.A., Foster J., Wilkinson J., Arnett A., Williams P. and Dunn F. (2014). '*Analytical and methodological development for improved surveillance of the Great Crested Newt. Appendix 5. Technical advice note for field and laboratory sampling of great crested newt (Triturus cristatus) environmental DNA*'. Freshwater Habitats Trust, Oxford.

<sup>8</sup> Natural England (2015) '*Great crested newts: surveys and mitigation for development projects. Standing advice for local planning authorities who need to assess the impacts of development on great crested newts*'. Last updated at www.gov.uk on 24/12/2015.

<sup>9</sup> Surveys based on methodology within: Baille *et al.* RA (2010) '*Breeding Birds in the Wider Countryside: their conservation status*', BTO Research Report No. 385, BTO, Thetford.

method modified from the British Trust for Ornithology's (BTO's) Common Bird Census technique.

- 2.3.7 This involved walking a route over the site and recording all 'registrations' of birds either seen or heard. The sightings or 'registrations' were recorded on a site plan using standard BTO codes for each bird species and appropriate abbreviations.
- 2.3.8 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 given in Table 2.1 below.

**Table 2.1.** Breeding bird survey dates and weather conditions.

Survey Date	Weather Conditions			
	Wind (BF)	Temp(°)	Cloud Cover (%)	Precipitation (0-5)
20 <sup>th</sup> April 2023	3	10	0	0
7 <sup>th</sup> May 2023	2-3	14	85	0
19 <sup>th</sup> June 2023	3-4	19	50	0

## 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 original 2020 Phase 1 survey was carried out within the optimal season. The latest Phase 1 habitat survey was undertaken outside the optimal season, albeit the nature of the habitats within the site and previous survey data allowed for the broad habitat types to be identified and for a robust assessment of the intrinsic ecological interest of the site to be made.
- 2.4.2 Attention was paid to the presence of any invasive species listed under Schedule 9 of the Wildlife and Countryside Act 1981 (as amended). However, the detectability of such species varies due to a number of factors, e.g. time of year, site management, etc., and hence the absence of invasive species should not be assumed even if no such species were detected during the Phase 1 survey.

## 2.5 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)<sup>10</sup>, which involves identifying 'important ecological features' within a defined geographical context (i.e. international, national, regional, county, district, local or site importance). For full details refer to Appendix 5940/1.

## 2.6 National Policy Approach to Biodiversity in the Planning System

- 2.6.1 The National Planning Policy Framework (NPPF)<sup>11</sup> describes the Government's national policies on 'conserving and enhancing the natural environment' (Chapter 15). NPPF is

<sup>10</sup> CIEEM (2018) 'Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine', ver. 1.2, Chartered Institute of Ecology and Environmental Management, Winchester

<sup>11</sup> Ministry of Housing, Communities & Local Government (2023) 'National Planning Policy Framework'



accompanied by Planning Practice Guidance on 'Biodiversity, ecosystems and green infrastructure' and ODPM Circular 06/2005<sup>12</sup>.

- 2.6.2 NPPF takes forward the Government's strategic objective to halt overall biodiversity loss<sup>13</sup>, as set out at Paragraph 180, 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 186:

*'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 42020:2019<sup>14</sup>, which involves the following step-wise process:

- **Avoidance** – avoiding adverse effects through good design;
- **Mitigation** – where it is unavoidable, mitigation measures should be employed to minimise adverse effects;
- **Compensation** – where residual effects remain after mitigation it may be necessary to provide compensation to offset any harm; and

<sup>12</sup> ODPM (2006) 'Circular 06/2005: Planning for Biodiversity and Geological Conservation – A Guide to Good Practice'

<sup>13</sup> DEFRA (2011) 'Biodiversity 2020: A strategy for England's wildlife and ecosystem services'

<sup>14</sup> British Standards Institution (2013) 'Biodiversity – Code of practice for planning and development', BS 42020:2019

- **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).

## 2.7 Local Policy

2.7.1 The site is situated within the District of Uttlesford. Current planning policy for the District is set out within the Uttlesford Local Plan, adopted in January 2005<sup>15</sup>. Of the policies within the adopted local plan, the following are relevant to ecology:

### 2.7.2 ***'Policy ENV7 – The Protection of the Natural Environment – Designated Sites:***

*Development proposals that adversely affect areas of nationally important nature conservation concern, such as Sites of Special Scientific Interest and National Nature Reserves, will not be permitted unless the need for the development outweighs the particular importance of the nature conservation value of site or reserve.*

*Development proposals likely to affect local areas of nature conservation significance, such as County Wildlife sites, ancient woodlands, wildlife habitats, sites of ecological interest and Regionally Important Geological/ Geomorphological Sites, will not be permitted unless the need for the development outweighs the local significance of the site to the biodiversity of the District. Where development is permitted the authority will consider the use of conditions or planning obligations to ensure the protection and enhancement of the site's conservation interest.'*

### 2.7.3 ***'Policy ENV8 – Other Landscape Elements of Importance for Nature Conservation:***

*Development that may adversely affect these landscape elements*

- *Hedgerows,*
- *Linear tree belts,*
- *Larger semi natural or ancient woodlands,*
- *Semi-natural grasslands,*
- *Green lanes and special verges,*
- *Orchards,*
- *Plantations,*
- *Ponds,*
- *Reservoirs,*
- *River Corridors,*

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<sup>15</sup> Uttlesford District Council (2005) 'Uttlesford Local Plan'

- *Linear wetland features, and*
- *Networks or patterns of other locally important habitats.*

*Will only be permitted if the following criteria apply:*

- a) The need for the development outweighs the need to retain the elements for their importance to wild fauna and flora;*
- b) Mitigation measures are provided that would compensate for the harm and reinstate the nature conservation value for the locality.*

*Appropriate management of these elements will be encouraged through the use of conditions and planning obligations.'*

## 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 5940/ECO2. The nearest statutory designation is Patmore Heath Site of Special Scientific Interest (SSSI) located approximately 3.1km north-west of the site, which is designated on the basis of its dry grass heathland. The next nearest statutory designation is Hillcollins Pit SSSI located approximately 4km north-west of the site, which is designated for its geological rather than ecological interest and is therefore not discussed further within this report.
- 3.1.2 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. The site sits within IRZs in relation to Patmore Heath SSSI and Thorley Flood Pond SSSI, however the IRZs do not relate to solar development.

#### Evaluation

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

### 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 5940/ECO2. Two Local Wildlife Sites are present adjacent to the site boundaries. Bloodhounds' Wood / High Wood Local Wildlife Site (LWS) is located adjacent to the southern site boundary, which is designated on the basis of its ancient coppiced woodland and a significant maternity roost for Barbastelle (*Barbastella barbastellus*) bats. Bailey Hills LWS is located adjacent to the north-eastern site boundary which is designated on the basis of its composition of ancient Hornbeam *Carpinus betulus* coppice, with stands of Ash *Fraxinus excelsior*, Pedunculate Oak *Quercus robur* and Hazel *Corylus avellana*.

#### Evaluation

- 3.2.2 The site itself is not subject to any non-statutory nature conservation designations, albeit Bloodhounds' Wood / High Wood LWS and Bailey Hills LWS lie immediately adjacent to the boundaries of the site. These adjacent designations will be fully retained and appropriately buffered under the proposals (>15m). In addition, all potential bat commuting routes (such as hedgerows) present within the site will be fully retained and protected under the proposals, with new woodland and hedgerow planting and wildflower grassland creation enhancing commuting and foraging opportunities for bats within the site. These measures will not only safeguard the known Barbastelle roost present, and the integrity of the designations, but serve to strengthen the resilience of the roost by enhancing the quality of adjacent foraging opportunities and connectivity between woodland parcels.

- 3.2.3 Subject to the implementation of appropriate mitigation measures (as described at Chapter 6 below), the integrity of Bloodhounds' Wood / High Wood LWS and Bailey Hills LWS will be strengthened under the proposals. All other non-statutory designations in the surrounding area are well separated from the site by existing development and open countryside and, given the nature and scale of the proposals, are unlikely to be adversely affected.

### 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. No Priority Habitats are identified on the MAGIC database within the site, albeit Bloodhounds' Wood and Bailey Hills are adjacent to the southern and north-eastern site boundaries respectively. These areas are identified as comprising 'Ancient and Semi-Natural Woodland' and Priority Habitat 'Deciduous Woodland'. In addition, Priority Habitat 'Hedgerows' have been identified within the site during survey work undertaken, which is discussed within the relevant habitat section at Chapter 4 below.

#### Evaluation

- 3.3.2 Buffers of at least 15m between the development footprint and any woodland edge, and at least 10m between the development footprint and any hedgerow, will be implemented, therefore no direct impacts on any Priority Habitats will occur as a result of the proposed development. A number of safeguarding measures in respect of pollution prevention (as discussed below at Chapter 6 below) will be implemented during the construction phase, no significant adverse effects on any Priority Habitats, ancient woodland, or ancient or veteran trees will occur as a result of the proposed development.

### 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 and at Chapter 6), it is unlikely that any such designations or Priority Habitats in the surrounding area will be significantly affected by the proposals.

## 4 Habitats and Ecological Features

### 4.1 Background Records

4.1.1 No specific records of any protected, rare or notable plant species from within or immediately adjacent to the site are included within the information returned from the desktop study. A number of records of Bluebell *Hyacinthoides non-scripta*, which is protected from intentional picking, uprooting or destruction under Schedule 8 of the Wildlife and Countryside Act 1981 (as amended), and the Priority Species Spreading Hedge-parsley *Torilis arvensis* and Corn Buttercup *Ranunculus arvensis* were returned from within 2km of the site. No evidence for the presence of any of these species within the site was recorded during the survey work undertaken.

### 4.2 Overview

4.2.1 The habitats and ecological features present within the site are described below and evaluated in terms of whether they constitute an important ecological feature and their level of importance, taking into account the status of habitat types and the presence of rare plant communities or individual plant species of elevated interest. The likely effects of the proposals on the habitats and ecological features are then assessed. The value of habitats for the fauna they may support is considered separately in Chapter 5 below.

4.2.2 The following habitats/ecological features were identified within/adjacent to the site:

- Arable;
- Hedgerows;
- Trees; and
- Vacant / Derelict Ground.

4.2.3 The locations of these habitat types and features are illustrated on Plan 5940/ECO3 and described in detail below.

### 4.3 Priority Habitats

4.3.1 Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006 places duties on public bodies to have regard to the conservation of biodiversity in the exercise of their normal functions. In particular, Section 41 of the NERC Act requires the Secretary of State to publish a list of habitats which are of principal importance for conservation in England. This list is largely derived from the 'Priority Habitats' listed under the former UK Biodiversity Action Plan (BAP), which continue to be regarded as priority habitats under the subsequent country-level biodiversity strategies.

4.3.2 Of the habitats within the site, the hedgerows have been assessed to be Priority Habitat and therefore constitute important ecological features. This is discussed further in the relevant habitat section below.

### 4.4 Arable

#### Description

4.4.1 The site is dominated by arable land with narrow uncultivated margins of approximately 0.5 – 1m wide (see Photographs 1 and 2), as shown on Plan 5940/ECO3 and described below.

4.4.2 The arable was in active production and therefore is likely to receive regular fertiliser / herbicide inputs. Species present within the sward of the narrow uncultivated field margins include Perennial Rye-grass *Lolium perenne*, Dandelion *Taraxacum officinale* agg., Ribwort Plantain *Plantago lanceolata*, Greater Plantain *Plantago major*, Yorkshire-fog *Holcus lanatus*, Curled Dock *Rumex crispus*, Yarrow *Achillea millefolium*, Spear Thistle *Cirsium vulgare*, Creeping Bent *Agrostis stolonifera*, Broad-leaved Dock *Rumex obtusifolius*, Groundsel *Senecio vulgaris*, Common Mouse-ear *Cerastium fontanum*, Common Ragwort *Jacobaea vulgaris*, Speedwell *Veronica* sp., Wild Teasel *Dipsacus fullonum* and Dove's-foot Crane's-bill *Geranium molle*.

#### Evaluation

4.4.3 The arable is subject to intensive agricultural management. The field margins are all narrow and are not managed for the benefit of biodiversity, supporting a limited diversity of species that are common and widespread at a local and national level. As such, the arable and associated field margins do not constitute an important ecological feature and their loss to the proposals is of negligible ecological significance.

## 4.5 Hedgerows

#### Description

4.5.1 The hedgerows are present within the site located at the site boundaries (see Photographs 3 and 4). The hedgerows are described in more detail in Table 4.1 below.

**Table 4.1.** Hedgerow descriptions.

No.	H	W	Woody species	Avg. per 30m*	Ground flora & climbers	Associated features	Comments (including structure / management)	Likely to qualify#
H1	2m	2-3m	<u>Hawthorn</u> , <u>Field Maple</u> , <u>Hazel</u> , <u>Spindle</u> , <u>Wayfaring Tree</u>	≥5	Broad-leaved Dock, Cow Parsley, False Oat-grass, Cleavers, Perennial Rye-grass, Wood Avens, False Brome	>10% gaps, ditch	Box-cut management	N
H2	4m	3-4m	<u>Oak</u> , <u>Ash</u> , <u>Hornbeam</u> , <u>Spindle</u> , <u>Field Maple</u> , <u>Blackthorn</u> , <u>Elder</u> , <u>Hawthorn</u> , <u>Gelder Rose</u> , <u>Dogwood</u> , <u>Wayfaring Tree</u>	≥5	Cock's-foot, Bramble, Bracken, Common Nettle, Cow Parsley	>10% gaps, ≥1 standard tree per 50m, ditch	Outgrown in nature	N
H3	2m	1-1.5m	<u>Hawthorn</u>	1	Species associated with the arable field margins	>10% gaps	Face managed only	N

Woody species (as listed under Schedule 3 of the Hedgerows Regulations 1997) and woodland ground flora species (as listed under Schedule 2 of the Hedgerows Regulations 1997) underlined

\* estimated average number of woody species (as listed under Schedule 3 of the Hedgerows Regulations 1997) in any one 30m stretch

# likely to qualify – as 'important' under the wildlife and landscape criteria of the Hedgerows Regulations 1997

#### Evaluation

4.5.2 The hedgerows recorded within the site are relatively substantial, with hedgerow H2 noted to be outgrown in nature and containing a number of standard trees. From a preliminary appraisal, hedgerows H1 and H2 are species-rich<sup>16</sup>, however are unlikely to qualify as

<sup>16</sup> i.e. five or more native woody species within a 30m length (or four or more in Northern England) – FEP Manual

ecologically 'important' under the Hedgerows Regulations 1997, based on the low number of associated features.

4.5.3 The hedgerows within the site are however likely to qualify as a Priority Habitat based on the standard definition<sup>17</sup>, 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 GB qualify as a Priority Habitat under this definition.<sup>17</sup>

4.5.4 The hedgerows are mature habitats which provide linear connectivity within the site in addition to connectivity between adjacent ancient woodland parcels and a wider network of off-site hedgerows. On this basis, the hedgerows within the site constitute important ecological features at the local level.

4.5.5 The proposals incorporate the retention of all the hedgerows within the site, which will be protected during the construction phase of the proposals, as per the recommendations at Chapter 6 below. Furthermore, the proposals incorporate new woodland and hedgerow planting which will link with the existing / retained hedgerows and enhance the value of these features for biodiversity.

## 4.6 Trees

### Description

4.6.1 A number of trees were recorded in association with the hedgerows (as set out at Table 4.1 above), comprising Pedunculate Oak, Ash and Sycamore *Acer psuedoplatanus*. Standard trees within the hedgerows were noted to range from semi-mature to mature in age.

### Evaluation

4.6.2 A number of the trees within the hedgerows are mature in age and accordingly, are of ecological interest in their own right, albeit at present do not constitute important ecological features. Other trees within the hedgerows are relatively small in size being semi-mature in age such that they are currently of limited ecological interest and also do not form important ecological features.

4.6.3 It is understood that all trees are fully retained under the proposals and as such, subject to recommended safeguards set out at Chapter 6 below, will be protected under the proposals.

## 4.7 Vacant / Derelict Ground

### Description

4.7.1 A track, categorised as vacant / derelict land, is present at the south of the site (see Photograph 5), as shown on Plan 5940/ECO3. The vacant / derelict land is largely devoid of vegetation, aside from occasional cracks and crevices, which support species associated with the arable field margins.

<sup>17</sup> Based on: Biodiversity Reporting and Information Group (2011) 'UK Biodiversity Action Plan (BAP) Priority Habitat Descriptions', ed. Ant Maddock



## Evaluation

- 4.7.2 The vacant / derelict land is inherently of negligible ecological value. As such, it does not form an important ecological feature.

## 4.8 Habitat Evaluation Summary

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

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

Habitat	Level of Importance
Hedgerows	Local

- 4.8.2 Other habitats present within the site include arable and vacant / derelict land however, these habitats do not form important ecological features.

## 5 Faunal Use of the Site

### 5.1 Overview

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

### 5.2 Priority Species

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

5.2.2 During the survey work undertaken, the Priority Species Linnet *Carduelis cannabina*, Skylark *Alauda arvensis*, Corn Bunting *Emberiza calandra*, Starling *Sturnus vulgaris*, Yellowhammer *Emberiza citrinella* and Yellow Wagtail *Motacilla flava* were recorded within the site. This is discussed further below.

### 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 5940/2 for detailed provisions). If proposed development work is likely to result in an offence a licence may need to be obtained from Natural England which would be subject to appropriate measures to safeguard bats. Given all bats are protected species, they are considered to represent important ecological features. A number of bat species are also considered S41 Priority Species.

5.3.2 **Background Records.** No specific records of any bats were returned from the desktop study from within or adjacent to the site. Information received from the desktop study includes records of Common Pipistrelle *Pipistrellus pipistrellus*, Soprano Pipistrelle *Pipistrellus pygmaeus*, Nathusius' Pipistrelle *Pipistrellus nathusii*, Brown Long-eared Bat *Plecotus auritus*, Natterer's Bat *Myotis nattereri*, Barbastelle, Daubenton's Bat *Myotis daubentonii*, Noctule *Nyctalus noctula* and Serotine *Eptesicus serotinus* within 1km of the site. The closest specific records are for Natterer's Bat and Brown Long-eared Bat, recorded in 2017 during mist-net trapping, located within Bloodhound's Wood, approximately 0.1km south of the site.

### 5.3.3 Survey Results

#### Visual Inspection Surveys

##### *Trees*

- 5.3.4 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 5940/ECO3 and summarised in Table 5.1 below.

**Table 5.1.** Tree inspection results.

Tree No.	Species	Age	Potential Roost Features	Suitability
T1	Ash	Mature	Knot hole, rot hole, limb tear, split limb and Ivy coverage	Moderate

- 5.3.5 All other trees within and adjacent to the site, not listed within the above table, were assessed to be of negligible suitability to support roosting bats due to the absence of any potentially suitable roost features.

### 5.3.6 Evaluation and Assessment of Likely Effects

#### Roosting

##### *Trees*

- 5.3.7 It is understood that all trees within the site, including those described above with potential bat roost features, are to be retained under the proposals, such that in the event that roosting bats are present within the trees they will remain unaffected. As such, subject to the implementation of the recommendation outlined at Chapter 6 below in relation to lighting, it is concluded that roosting bats will be fully safeguarded under the proposals. In the long-term, new roosting opportunities for bats will be provided under the proposals (see Chapter 6)

#### Foraging / Commuting

- 5.3.8 The site provides limited opportunities for foraging / commuting bats in the form of hedgerows, albeit the majority of the site provides sub-optimal habitat being dominated by arable land which is likely to support only a limited biomass of invertebrate prey. This combination of habitat types occurs frequently in the surrounding area, with higher quality present in close proximity to the site, such as Bloodhound's Wood / High Wood LWS. As such, the site is assessed to be of site to local level value to foraging / commuting bats.
- 5.3.9 The habitats of elevated value to foraging / commuting bats including the hedgerows and adjacent woodland will be fully retained under the proposals and buffered from the development footprint. Accordingly, subject to the implementation of the recommendations outlined at Chapter 6 below in respect of lighting, the conservation status of local bat populations will be fully safeguarded under the scheme. Creation of new habitats as part of the landscape proposals, including new hedgerows, woodland planting, wildflower grassland and a wetland feature, will improve foraging and commuting opportunities for bats at the site.

## 5.4 Badger

- 5.4.1 **Legislation.** Badger receive legislative protection under the Protection of Badgers Act 1992 (see Appendix 5940/2 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.<sup>18, 19</sup>
- 5.4.3 **Background Records.** No specific records of Badger were returned from within or immediately adjacent to the site. A single recent record of Badger, dated 2018, was returned from the same 1km x 1km OS grid square containing the northern section of the site, albeit more specific information was not available that would allow the precise location of this record to be determined in relation to the site.
- 5.4.4 **Survey Results and Evaluation.** No Badger setts were found within or immediately adjacent to the site, nor were any latrines or dung pits. A small number of mammal paths were recorded beneath hedgerows and the woodland fence, however these could not be directly attributed to Badger. The vast majority of the site is sub-optimal for Badger being predominantly arable land and as such, it is unlikely that Badger rely on the site for foraging. Nonetheless, this species may pass through the site on occasion. As such, a number of precautionary safeguards are recommended at Chapter 6 below, to protect any Badger that may enter the site during construction. Subject to the implementation of these measures, any local Badger social clan are unlikely to be significantly affected by the proposals.
- 5.4.5 Post-development connectivity through the site for Badger will be maintained along the retained hedgerows, with new hedgerow and woodland planting and creation of new wildflower grassland improving foraging opportunities for Badger.

## 5.5 Dormouse

- 5.5.1 **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 5940/2 for detailed provisions). Dormouse is also a S41 Priority Species. On this basis, Dormouse is considered to form an important ecological feature.
- 5.5.2 **Background Records:** No records of Dormouse were returned from desktop study. In addition, no evidence of Dormouse was recorded during specific survey work undertaken for the A120 Little Hadham Bypass development in 2015, which is located approximately 0.5km to the west of the site.
- 5.5.3 **Survey Results and Evaluation.** The site provides limited opportunities for Dormouse in the form of hedgerows, which are connected to off-site woodland and other habitats capable of sustaining Dormouse populations, albeit the site is dominated by an arable field which is

<sup>18</sup> English Nature (2002) 'Badgers and Development'

<sup>19</sup> Natural England (2011) 'Badgers and Development: A Guide to Best Practice and Licensing', Interim Guidance Document

unsuitable for Dormouse. The hedgerows are to be retained under the proposals, and as such, if present, Dormouse will remain unaffected, therefore no specific survey work was undertaken for this species. On the contrary, the proposals seek to enhance the site with new hedgerow and woodland planting which will improve connectivity between the areas of ancient woodland adjacent to the southern and north-eastern site boundaries (see Chapter 6) such that the site will provide greater opportunities for this species under the proposals.

## 5.6 Other Mammals

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

**5.6.2 Background Records.** No specific records of any other mammals from within or adjacent to the site were returned from the desktop study. A number of records of Brown Hare *Lepus europaeus* and Hedgehog *Erinaceus europaeus*, both of which are Priority Species, were returned from the desktop study. The closest specific records of these species are located approximately 1km south, and 1.2km south-west of the site respectively, dated 2003 and 2021.

**5.6.3 Survey Results and Evaluation.** No evidence of any protected, rare or notable mammal species was recorded within the site.

**5.6.4** The site affords some limited opportunities for Brown Hare (Priority Species) in the form of arable and hedgerows and is assessed to be at most of local level value to this species. The habitats within the site are common in the surrounding area, such that there is no evidence to suggest that the proposals will significantly affect local populations of this species, with opportunities for this species to be maintained post-development.

**5.6.5** The site affords limited opportunities for Hedgehog (Priority Species) in the form of hedgerows, albeit the majority of site is sub-optimal arable land. As such, the site is concluded to be of importance at a site level only to this species. Abundant similar opportunities are present within the local area and there is no evidence to suggest the proposals will significantly affect local populations of Hedgehog. Opportunities for this species will be enhanced at the site post-development, with the creation of new hedgerows, woodland planting and wildflower grassland. It is proposed that precautionary safeguards are put in place during the construction phase to protect Hedgehog, and other mammal species, in the event these species enter the site during works, as detailed at Chapter 6 below.

**5.6.6** Other mammal species likely to utilise the site, such as Fox *Vulpes vulpes*, 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.

## 5.7 Amphibians

**5.7.1 Legislation.** All British amphibian species receive a degree of protection under the Wildlife and Countryside Act 1981 (as amended). Great Crested Newt is protected under the Act and is also classed as a European Protected Species under the Conservation of Habitats and

Species Regulations 2017 (as amended). As such, both Great Crested Newt and habitats utilised by this species are afforded protection (see Appendix 5940/2 for detailed provisions). Great Crested Newt is also a S41 Priority Species, as are Common Toad *Bufo bufo*, Natterjack Toad *Epidalea calamita*, and Pool Frog *Pelophylax lessonae*. As such, these species should be assessed as important ecological features.

**5.7.2 Background Records.** No specific records of Great Crested Newt from within or adjacent to the site were returned from the desktop study. A number of records of Great Crested Newt and Common Toad were returned from the wider search area surrounding the site, with the closest record of Great Crested Newt located approximately 0.4km to the south of the site, dated 2014. Environmental DNA (eDNA) survey work conducted by Aspect Ecology, in 2020 confirmed the presence of Great Crested Newt DNA within an off-site pond located ~265m south-west of the site.

**5.7.3 Survey Results.** As discussed at section 2.3.5 previously, two off-site ponds have been identified within 250m of the site. As such, eDNA surveys of ponds P1 and P2 were undertaken in May 2023. The eDNA survey returned a positive result within pond P1, indicating that Great Crested Newt are highly likely to be present within this waterbody, and a negative result within pond P2, indicating Great Crested Newt are unlikely to be present.

**5.7.4 Evaluation.** Suitable habitat within the site is limited to the hedgerows, which are to be retained and protected in full under the proposals. The majority of habitats within the site are sub-optimal for Great Crested Newt, being arable land and managed field margins. It is therefore assessed that risk of encountering Great Crested Newt during works is extremely low, given the habitat composition of the site, and the proposed development would not require a licence from Natural England.

**5.7.5** Nevertheless, precautionary measures will be implemented to ensure any amphibians present are safeguarded during construction works and clearance of any suitable vegetation (see Chapter 6). In the unlikely event that Great Crested Newt are encountered, works would cease and further ecological advice would be provided.

**5.7.6** The local conservation status of amphibians will be maintained, if not enhanced, post-development through the creation of new wetland, wildflower grassland, woodland, scrub and hedgerow habitats as part of the proposed landscape scheme (see Chapter 6).

## 5.8 Reptiles

**5.8.1 Legislation.** All six species of British reptile are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), which protects individuals against intentional killing or injury. Sand Lizard *Lacerta agilis* and Smooth Snake *Coronella austriaca* receive additional protection under the Conservation of Habitats and Species Regulations 2017 (as amended); refer to Appendix 5940/2 for detailed provisions. All six reptile species are also S41 Priority Species. As such, all reptile species should be assessed as important ecological features.

**5.8.2 Background Records.** Information returned from the desktop study included a single recent reptile record, for a Grass Snake *Natrix natrix* located approximately 0.8km to the south of the site, dated 2004.

**5.8.3 Survey Results and Evaluation.** The majority of the site comprises arable land and is therefore unsuitable for reptiles. The hedgerows and narrow grassland margins may provide limited potential commuting opportunities, such that individual reptiles may make use of the site on occasion, albeit it is highly unlikely that a resident population of reptiles

would be present at the site. The hedgerows are fully retained under the proposals, such that connectivity through the site will be maintained. New hedgerow and woodland planting and the creation of new wildflower grassland and wetland features under the proposals will provide enhanced foraging and commuting opportunities for reptiles at the site. Subject to the implementation of these measures, the local conservation status of reptiles will be maintained, if not enhanced, post-development.

## 5.9 Birds

- 5.9.1 **Legislation.** All wild birds and their nests receive protection under Section 1 of the Wildlife and Countryside Act 1981 (as amended) in respect of killing and injury, and their nests, whilst being built or in use, cannot be taken, damaged or destroyed. Species included on Schedule 1 of the Act receive greater protection and are subject to special penalties (see Appendix 5940/2 for detailed provisions).
- 5.9.2 **Conservation Status.** The conservation importance of British bird species is categorised based on a number of criteria including the level of threat to a species' population status<sup>20</sup>. Species are listed as Green, Amber or Red. Red Listed species are considered to be of the highest conservation concern being either globally threatened and or experiencing a high/rapid level of population decline (>50% over the past 25 years). A number of birds are also S41 Priority Species. Red and Amber listed species and priority species should be assessed as important ecological features.
- 5.9.3 **Background Records.** Information from the desktop study included a number of records of Priority Species within 2km of the site, including Bullfinch *Pyrrhula pyrrhula*, Grasshopper Warbler *Locustella naevia*, Grey Partridge *Perdix perdix*, House Sparrow *Passer domesticus*, Lapwing *Vanellus vanellus*, Linnet, Marsh Tit *Poecile palustris*, Reed Bunting *Emberiza schoeniclus*, Skylark, Song Thrush *Turdus philomelos*, Spotted Flycatcher *Muscicapa striata*, Starling, Yellow Wagtail and Yellowhammer. No specific records of bird species originating from within or immediately adjacent to the site were returned from the desktop study.
- 5.9.4 **Survey Results.** Several species of bird were observed within the site during the Phase 1 survey, including Blackbird *Turdus merula*, Carrion Crow *Corvus corone*, Fieldfare *Turdus pilaris*, Goldfinch *Carduelis carduelis*, Jackdaw *Corvus monedula*, Jay *Garrulus glandarius*, Linnet, Meadow Pipit *Anthus pratensis*, Robin *Erithacus rubecula*, Skylark and Starling.
- 5.9.5 During the detailed 2023 breeding bird surveys a total of 19 bird species were recorded within the site, of which 12 were confirmed as breeding. The majority of breeding birds were recorded in association with the arable field and boundary hedgerows (as shown on Plan 5940/ECO5).
- 5.9.6 The notable bird species recorded as breeding within the site are detailed in Table 5.2 overleaf.

<sup>20</sup> Stanbury, A., Eaton, M., Aebischer, N., Balmer, D., Brown, A., Douse, A., Lindley, P., McCulloch, N., Noble, D. and Win I. (2021). 'The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain.' British Birds 114, p.p. 723-747.

**Table 5.2.** Notable bird species recorded as breeding/probably breeding within the site

Species	Status	Notes
Skylark	Red Listed, S41 Priority Species	13 pairs breeding within the arable field
Linnet	Red Listed, S41 Priority Species	One pair breeding within northern boundary hedgerow
Yellow Wagtail	Red Listed, S41 Priority Species	One pair breeding within the arable field
Yellowhammer	Red Listed, S41 Priority Species	Two pairs breeding within boundary hedgerows
Corn Bunting	Red Listed, S41 Priority Species	One pair breeding at the western site boundary
Dunnock	Amber Listed, S41 Priority Species	Two pairs breeding within boundary hedgerows
Whitethroat <i>Curruca communis</i>	Amber Listed	Two pairs breeding within boundary hedgerows

5.9.7 **Evaluation.** Most of the birds recorded at the site are not listed as having any special conservation status, although Yellowhammer, Yellow Wagtail, Corn Bunting, Fieldfare, Linnet, Skylark and Starling are included on the Red List as a result of declines in UK breeding populations, with Yellowhammer, Yellow Wagtail, Corn Bunting, Linnet, Skylark and Starling also a Priority Species. However, the habitats present are common in the surrounding area and the majority of these species were recorded in association with the hedgerows which will be fully retained and protected under the proposals, therefore maintaining opportunities for these species at the site post-development.

5.9.8 The site contains suitable habitat for ground-nesting bird species such as Skylark, in the form of arable land. As such, it is recommended a walkover survey of the site is undertaken prior to the commencement of works, should works commence within the bird nesting season (1<sup>st</sup> March to 31<sup>st</sup> August inclusive), to ensure that no nests of ground-nesting birds will be affected (see Chapter 6). The applicant is willing to provide new Skylark Plots, which consist of undrilled patches within arable fields where arable weeds are able to establish on the uncultivated land, which will provide additional opportunities for Skylark in the local area (see Chapter 6). Foraging opportunities at the site will also be enhanced for Skylark and other declining farmland birds through creation of new wildflower grassland and hedgerow planting at the site.

## 5.10 Invertebrates

5.10.1 **Legislation.** A number of invertebrate species are listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended). In addition, Large Blue Butterfly *Maculinea arion*, Fisher’s Estuarine Moth *Gortyna borelii lunata* and Lesser Whirlpool Ram’s-horn Snail *Anisus vorticulus* receive protection under the Conservation of Habitats and Species Regulations 2017 (as amended); refer to Appendix 5940/2 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.

5.10.2 **Background Records.** A single record of Small Skipper *Thymelicus sylvestris* (Priority Species) is located approximately 0.1km from the north-western boundary of the site, dated 2013. Information received from the desktop study also returned recent records of a number of Priority Species within 2km of the site and a single record of Roman Snail *Helix pomatia*,



which is listed under Schedule 5 of the Wildlife and Countryside Act 1981 (as amended), located approximately 1.7km to the west of the site, dated 2008.

- 5.10.3 **Survey Results and Evaluation.** No evidence for the presence of any protected, rare or notable invertebrate species was recorded within the site. The site is dominated by arable land, which is likely to support only a limited diversity of invertebrates. The site is bound by hedgerows but otherwise contains no micro-habitats that would typically indicate elevated potential for invertebrates<sup>21</sup>, such as a variable topography with areas of vertical exposed soil, areas of species-rich semi-natural vegetation; variable vegetation structure with frequent patches of tussocks combined with short turf; free-draining light soils; walls with friable mortar or fibrous dung. Accordingly, given the habitat composition of the site and lack of adjacent sites designated for significant invertebrate interest, the site is not anticipated to support an important invertebrate assemblage and it is unlikely that the proposals will result in significant harm to any protected, rare or notable invertebrate populations.

## 5.11 Summary

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

**Table 5.3.** Evaluation summary of fauna forming important ecological features.

Species / Group	Supported by or associated with the site	Level of Importance
Bats - Roosting	Potential roosting habitat in the form of trees	Site
Bats – Foraging / Commuting	Potential commuting habitat in the form of hedgerows	Local
Badger	Likely absent but may pass through site on occasion	Site
Great Crested Newt	Potential to commute/forage along hedgerows	Site
Reptiles	Potential to commute/forage along hedgerows	Site
Birds	Confirmed presence on site	Local

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

<sup>21</sup> Natural England (2010) 'Higher Level Stewardship – Farm Environment Plan (FEP) Manual', 3<sup>rd</sup> Edition

## 6 Mitigation Measures and Biodiversity Net Gains

### 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 – 8**) 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).

#### Woodland, Hedgerows and Trees

6.1.2 **MM1 – Woodland, Hedgerow and Tree Protection.** The adjacent woodland, hedgerows and trees to be retained will 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. The footprint of the new development will be separated by a minimum 15m buffer from the adjacent Ancient Woodland in accordance with the government's standing advice. In addition, a minimum 10m buffer will separate the footprint of the new development from the existing retained hedgerows at the site.

#### Pollution Prevention

6.1.3 **MM2 – Water Quality.** In order to safeguard adjacent woodland against any potential run-off or pollution events during construction, the following safeguards will be implemented:

- Storage areas for chemicals, fuels, etc. will be sited well away from adjacent woodland (minimum 15m), and stored on an impervious base within an oil-tight bund with no drainage outlet. Spill kits with sand, earth or commercial products approved for the stored materials shall be kept close to storage areas for use in case of spillages;
- Where possible, and with prior agreement of the sewage undertaker, silty water should be disposed of to the foul sewer or via another suitable form of disposal, e.g. tanker off-site;
- Water washing of vehicles, particularly those carrying fresh concrete and cement, mixing plant, etc. will be carried out in a contained area as far from adjacent woodland as practicable (minimum 15m), to avoid contamination; and
- Refuelling of plant will take place in a designated area, on an impermeable surface, away from adjacent woodland (minimum 15m).

6.1.4 Post-development, the drainage system for the development will ensure adjacent woodland is not subject to adverse changes in surface water run-off or quality. On the contrary, the removal of agricultural run-off from the land will likely be beneficial in terms of water quality.

6.1.5 **MM3 – Air Quality (dust prevention measures).** In order to safeguard adjacent woodland, the following dust control and abatement measures will be implemented during construction:

- Machine, fuel and chemical storage and dust generating activities shall not be located within 15m of the woodland;

- Should this not be possible then the woodland shall be protected by the use of dust barriers/screens;
- Surfaces and dusty activities will be damped down as required by the use of agreed wet cleaning methods or mechanical road sweepers during periods of dry weather;
- All relevant loads entering or leaving the site should be covered;
- Stock piles of materials should exist for the shortest possible period of time and be kept away from the woodland.

### Mammals

6.1.6 **MM4 – Sensitive Lighting.** Light-spill onto retained and newly created habitat, in particular the retained hedgerows and woodland, will be minimised in accordance with good practice guidance<sup>22</sup> 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** – no lighting shall be used in areas likely to be used by bats, such as the existing retained hedgerows and woodland. Light exclusion zones or ‘dark buffers’ will be used to provide interconnected areas free of artificial illumination to allow bats to move around the site;
- **Appropriate luminaire specifications** – consideration will be given to the type of luminaires used, in particular luminaries shall minimise UV elements and metal halide and fluorescent sources shall be avoided in preference for LED luminaries. A warm white spectrum (ideally <2,700K) shall be adopted to reduce the blue light component;
- **Spacing and height of lighting units** – increasing spacing between lighting units will minimise the area illuminated and allow bats to fly in the dark refuges between lights. Reducing the height of lighting will also help decrease the volume of illuminated space and give bats a chance to fly over lighting units (providing the light does not spill above the vertical plane);
- **Light intensity** – light intensity (i.e. lux levels) shall be kept as low as possible to reduce the overall amount and spread of illumination;
- **Directionality** – to avoid light spill lighting shall be directed only to where it is needed. Particular attention shall 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 will 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 will be particularly beneficial during the active bat season (April to October). Motion sensors will also be used as appropriate to limit the time lighting is operational.

<sup>22</sup> 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.

6.1.7 **MM5 – Mammal Construction Safeguards.** In order to safeguard an wild mammals should they enter the site during construction works, the following measures will be implemented:

- Any trenches or excavations within the site that are to be left open overnight will be provided with a means of escape should a mammal 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) shall be blanked off at the end of each working day so as to prevent mammals gaining access as may happen when contractors are off-site;
- Any trenches/pits will be inspected each morning to ensure no mammals have become trapped overnight.
- The storage of topsoil or other 'soft' building materials in the site will be given careful consideration. Badgers will readily adopt such mounds as setts. So as to avoid the adoption of any mounds, these will 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 will be contained in such a way that they cannot be accessed or knocked over by any roaming mammals;
- Fires will only be lit in secure compounds and not allowed to remain lit during the night;
- Any material to be disposed of by burning, particularly waste from vegetation clearance, shall 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 shall 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 shall be moved prior to burning to allow a thorough check for any animals which may have been occupying the pile;
- Unsecured food and litter will not be left within the working area overnight;
- A watching brief shall be maintained for Hedgehog and other small mammals throughout any clearance works; and
- In the event that an injured Hedgehog is found, the animal shall 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.

6.1.8 **MM6 – Badger Update Survey.** Given that no evidence of Badgers has been recorded within or adjacent to the site, Badgers do not currently pose a constraint to development. Nonetheless, Badgers are dynamic animals and levels of Badger activity can rapidly change at a site, with new setts being created at any time. It is therefore proposed 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.

#### Herptiles

6.1.9 **MM7 – Destructive Search.** As a precautionary measure to minimise the risk of harm to amphibians and reptiles, a destructive search of the grassland margins to be removed is proposed. The destructive search will involve cutting the grassland within the development footprint to a short height (~15cm) so as to encourage herptiles to disperse to suitable areas

of retained/nearby habitat, whilst also allowing for a fingertip search of the area. This exercise shall be carried out under the supervision of a competent ecologist during the active season where practicable (generally March/April to September/October, depending on prevailing weather). Any potential refuge features present at the time of works, e.g. piles of rubble, heavy logs, brush piles, will be fingertip-searched by an ecologist prior to being carefully disassembled. Any amphibians or reptiles encountered during the destructive search will be carefully rescued by the supervising ecologist and relocated to suitable nearby habitat, which will be retained and protected under the proposals. In the unlikely event Great Crested Newt are encountered, it will be necessary to consider whether licensing is required for works to resume.

### Nesting Birds

- 6.1.10 **MM8 – Skylark Plots.** A minimum of seven Skylark Plots are to be created within adjacent arable land, thereby providing continued opportunities for this Skylark in the local area. Skylark plots are created by switching off the drill (or lifting it up) during crop sowing, to create undrilled patches at least 3m wide, with a buffer of at least 24m from any field margin or boundary feature<sup>23</sup>. The plots will provide uncultivated ground which will establish with arable weeds to provide suitable foraging for Skylarks, which has been shown to increase breeding success.
- 6.1.11 **MM9 – Timing of Works.** To avoid a potential offence under the relevant legislation, a walkover survey of suitable areas of arable land and grassland margins within the site will be undertaken prior to the commencement of any works during the bird nesting season (1<sup>st</sup> March to 31<sup>st</sup> August inclusive). This survey will identify any active nests created by ground-nesting birds that are present within the site. Any active nests identified would then need to be cordoned off with a suitable buffer and protected until the birds have fledged. These checking surveys would need to be carried out no more than three days in advance of any ground clearance works.

## 6.2 Biodiversity Net Gains

- 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 – EE9**), the opportunity exists for the proposals to deliver a number of biodiversity net gains at the site.

### Habitat Creation

- 6.2.2 **EE1 – New Native Woodland and Shrub Planting.** A new woodland belt will be planted at the south of the site, with new shrub planting within the east of the site. New woodland and shrub planting within the site will comprise native species of local provenance. Suitable species for inclusion within the planting include native trees such as Oak, Silver Birch *Betula pendula* and Field Maple *Acer campestre*, whilst native shrub species of particular benefit will include fruit and nut bearing species which would provide additional food for wildlife,

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<sup>23</sup> RSPB (undated) 'Farming for Wildlife: Skylark Plots'

such as Blackthorn *Prunus spinosa*, Hawthorn *Crataegus monogyna*, Crab Apple *Malus sylvestris*, Hazel *Corylus avellana* and Elder *Sambucus nigra*.

- 6.2.3 New woodland and shrub planting will benefit invertebrates which in turn provide a prey resource for foraging bats and birds. New woodland and shrub planting will combine with adjacent Ancient Woodland, providing a wildlife corridor through the site and connectivity between two important habitats which are fragmented at present.
- 6.2.4 **EE2 – Species-rich Hedgerow Planting.** Species-rich native hedgerow planting will be undertaken throughout the site, enhancing connectivity.
- 6.2.5 **EE3 – Wildflower Grassland.** Wildflower grassland will be created beneath and between the solar arrays and at the northern boundary of the site such that, in combination with new native landscaping planting, opportunities for biodiversity will be maximised under the proposals.
- 6.2.6 **EE4 – Wetland Feature.** A new wetland feature will also be created under the proposals within the east of the site, that will provide opportunities for a range of wildlife. This area of permanent standing water will provide new breeding opportunities for amphibians at the site.

#### Bats

- 6.2.7 **EE5 - Bat Boxes.** Tree-mounted 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, Barbastelle and Noctule, which are all 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. The precise number and locations of boxes / roost features shall be determined by a competent ecologist, post-planning once the relevant final development design details have been approved.

#### Birds

- 6.2.8 **EE6 - Bird Boxes.** Tree-mounted bird boxes will be incorporated within the proposed development, thereby increasing nesting opportunities for birds at the site. Ideally, the bird boxes will have greater potential for use if sited on suitable, retained trees, situated as high up as possible. The precise number and locations of boxes shall be determined by a competent ecologist, post-planning once the relevant final development design details have been approved.

#### Herptiles

- 6.2.9 **EE7 – Hibernacula.** Two new hibernacula will be installed within the new woodland planting and adjacent to the new wetland feature respectively. The hibernacula will provide new hibernation and refuge opportunities for reptiles and amphibians. The hibernacula will also provide additional opportunities for invertebrates which in turn will provide a prey resource for reptiles and amphibians.

#### Invertebrates

- 6.2.10 **EE8 – Nectar Source.** The wildflower mix used to create the wildflower grassland will include Yorkshire-fog and various Hawkbits *Leontodon* spp. and Knapweeds *Centaurea* spp.

(*Hieracium/Hypochoeris*), which will provide a larval food source and adult nectar sources, respectively, for Small Skipper (Priority Species).

- 6.2.11 **EE9 – Insect Hotels.** An insect hotel is to be incorporated within the proposed landscaping. These structures are created from materials such as wood, deadwood and stones and can create a variety of habitats and microclimates suitable for a range of invertebrate species, providing overwintering sites as well as nesting opportunities. These structures can also offer an educational focal point within public greenspace.

## 7 Conclusions

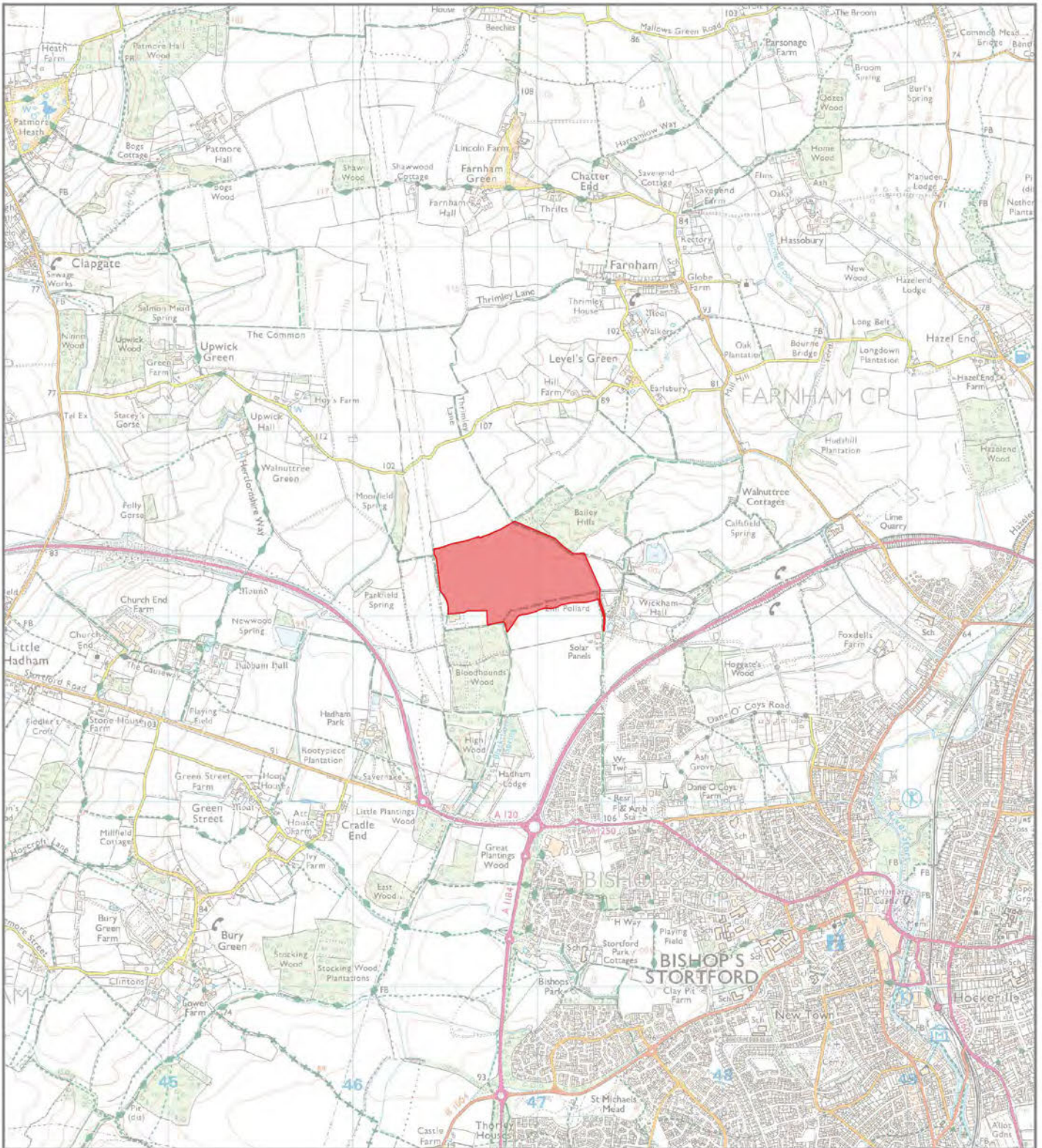
- 7.1 Aspect Ecology has carried out an Ecological Appraisal of the proposed development, based on the results of a desktop study, Phase 1 habitat survey and a number of detailed protected species surveys.
- 7.2 The available information confirms that no statutory or non-statutory nature conservation designations are present within the site, albeit Bloodhounds' Wood LWS and Bailey Hills LWS lie adjacent to the southern and north-eastern boundaries respectively. Subject to the implementation of appropriate mitigation measures, it is concluded that these Local Wildlife Sites or any other nature conservation designation within the surrounding area are unlikely to be adversely affected by the proposals.
- 7.3 The Phase 1 habitat survey has established that the site is dominated by habitats which are assessed not to be of ecological importance, whilst the proposals have sought to retain and protect those features identified to be of value.
- 7.4 The habitats of ecological importance within the site, such as the hedgerows, are likely to provide limited opportunities for protected species, including species protected under both national and European legislation. Accordingly, a number of mitigation measures have been proposed to minimise the risk of harm to protected species, with enhancement measures proposed, where appropriate, in order to maintain the conservation status of local populations.
- 7.5 In conclusion, the proposals have sought to minimise impacts and subject to the implementation of appropriate avoidance, mitigation and compensation measures, it is unlikely that the proposals will result in significant harm to biodiversity. On the contrary, the opportunity exists to provide a significant biodiversity net gain as a result of the proposals.



## Plan 5940/ECO1:

Site Location

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**Key:**

 Site Boundary



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

**Wickham Hall Estate,  
 Bishop's Stortford**  
 Site Location

5940/ECO1

C/JP

June 2023

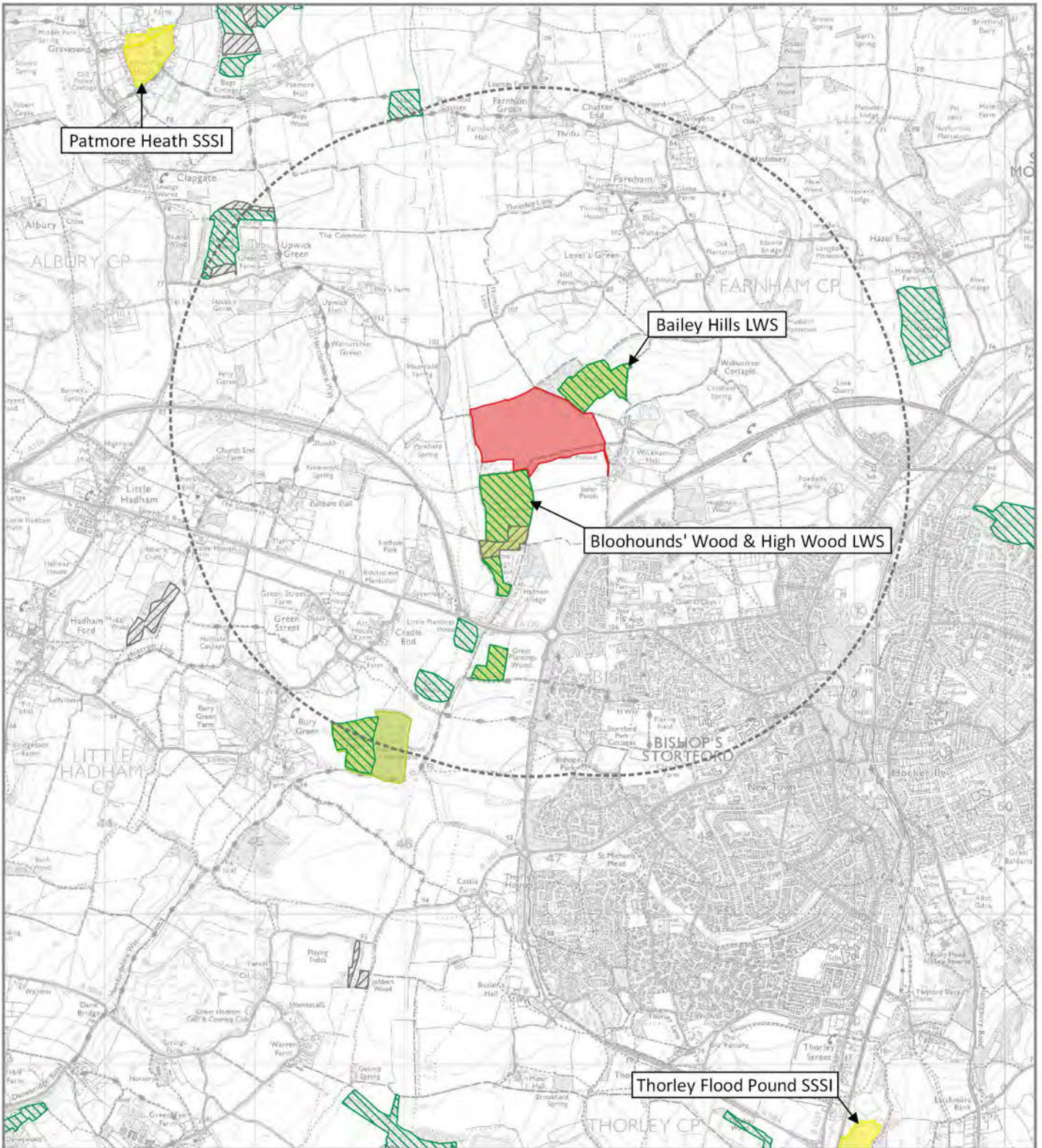
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 REV  
 DATE



## **Plan 5940/ECO2:**

Ecological Designations

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**Key:**

- Site Location
- Site of Special Scientific Interest (SSSI)
- Local Wildlife Site (LWS)
- Ancient Semi Natural Woodland (ASW)
- Ancient Replanted Woodland (ARW)
- 2km Buffer



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5940/ECO2

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 REV  
 DATE











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## **Plan 5940/ECO3:**

Habitats and Ecological Features

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- Key:
-  Site Boundary
  -  Modified grassland
  -  Non-cereal crops
  -  Vacant/derelict land/ bare ground
  -  Hardstanding
  -  Native Species Rich Hedgerow - Associated with bank or ditch
  -  Native Species Rich Hedgerow with trees - Associated with bank or ditch
  -  Tree with Moderate Bat Roosting Potential

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Wickham Hall Estate, Bishops Stortford Habitats and Ecological Features	PROJECT
	TITLE
5940/ECO3	DRAWING NO.
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July 2023	DATE






## Plan 5940/ECO4:

Pond Plan

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- Key:
-  Site Boundary
  -  Pond
  -  250m Buffer

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Wickham Hall Estate,  
 Bishops Stortford  
 Pond Plan

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REV	C/BG
DATE	July 2023

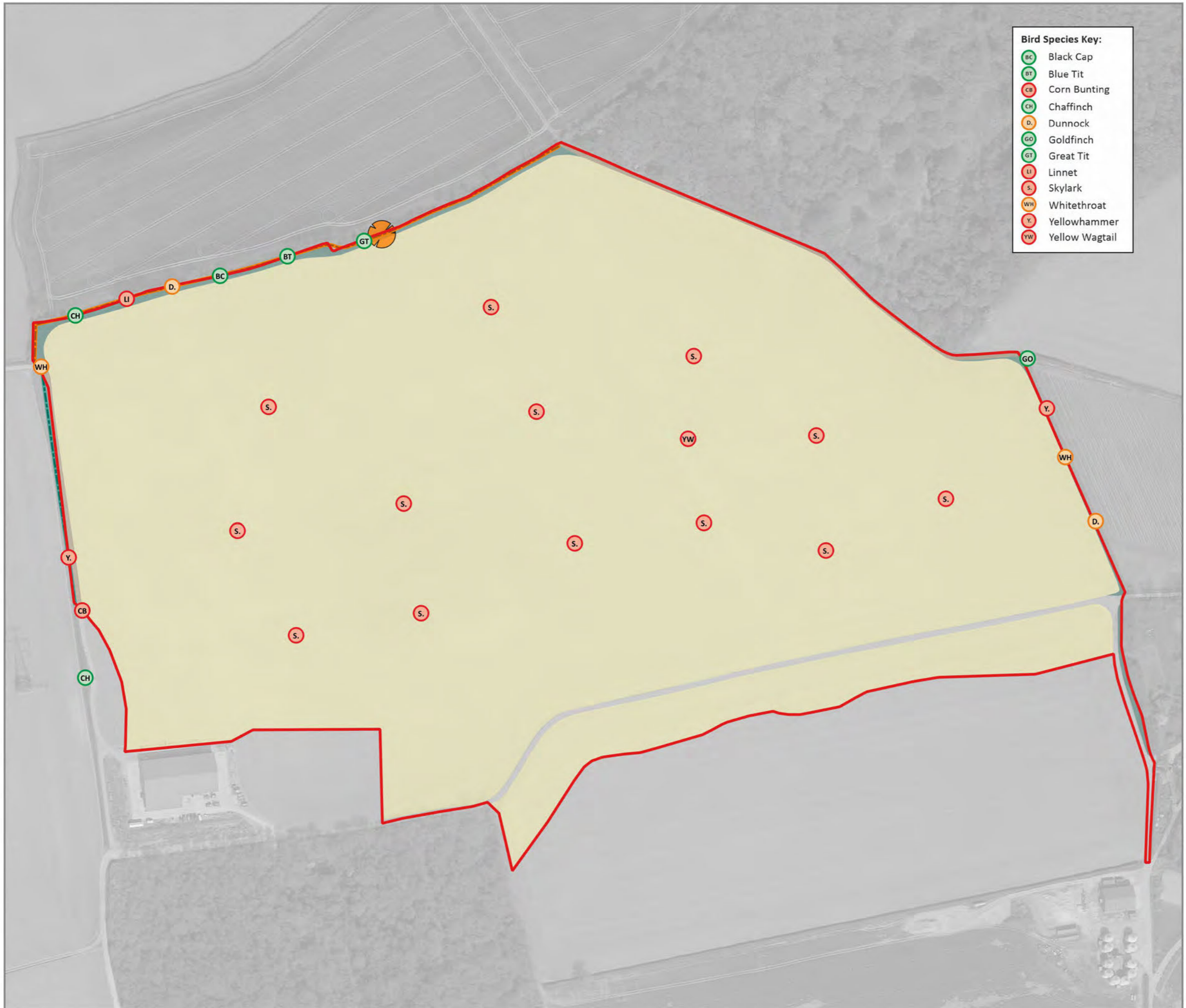




## **Plan 5940/ECO5:**

Breeding Bird Survey Results

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- Bird Species Key:**
- BC Black Cap
  - BT Blue Tit
  - CB Corn Bunting
  - CH Chaffinch
  - D Dunnock
  - GO Goldfinch
  - GT Great Tit
  - LI Linnet
  - S Skylark
  - WH Whitethroat
  - Y Yellowhammer
  - YW Yellow Wagtail

- Key:**
- Site Boundary
  - Breeding / Probable Breeding (BOCC Red List)
  - Breeding / Probable Breeding (BOCC Amber List Species)
  - Breeding / Probable Breeding (BOCC Green List - Not Threatened)

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Wickham Hall Estate,  
 Bishops Stortford  
 Breeding Bird Survey Results

5940/ECOS



A/JP  
 July 2023

## Photographs:

Photograph 1 : Arable Field



Photograph 2 : Narrow Grassland Field Margin



Photograph 3 : Hedgerow H1



Photograph 4 : Hedgerow H2



Photograph 5 : Hardstanding Track



## **Appendix 5940/1:**

Evaluation Methodology

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## 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)<sup>1</sup>.

### 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);

<sup>1</sup> 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 5940/2:**

Legislation Summary

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## 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 itself<sup>1</sup>. 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.

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<sup>1</sup> <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)<sup>2</sup> 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.

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<sup>2</sup> 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.

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