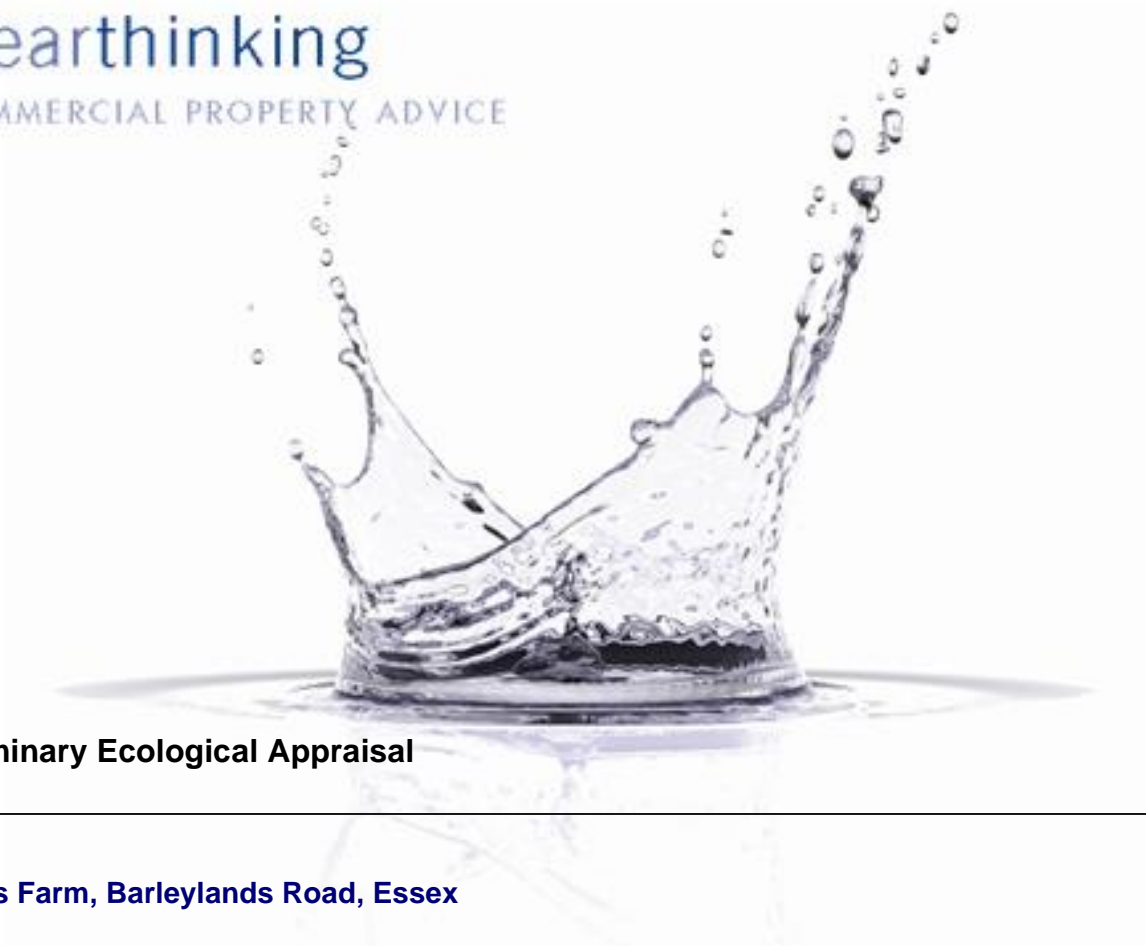


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## **Preliminary Ecological Appraisal**

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**Whites Farm, Barleylands Road, Essex**

**On Behalf Of: Anglo ES Whites Farm Ltd**

**Prepared By:**

Dr Holly Smith MCIEEM

Harris Lamb | Grosvenor House | 75-76 Francis Road | Edgbaston | Birmingham B16 8SP

Telephone: 0121 410 2064 E-mail: [louis.andrews@harrislamb.com](mailto:louis.andrews@harrislamb.com)

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Date: June 2022

**Preliminary Ecological Appraisal**

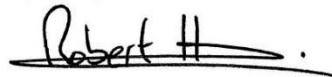
**Whites Farm, Barleylands Road, Essex**

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**Main Contributors**  
**Louis Andrews BSc**

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**Issued By**



**Signature.....**

**Print Name: Rob Harrison BSc MSc MCIEEM**

**Date: 03/02/2021**

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**Approved By**

**Signature.....**

**Print Name: Dr Holly Smith CIEEM**

**Date: 26/07/2022**

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## **EXECUTIVE SUMMARY**

Harris Lamb Property Consultancy (HLPC) was commissioned by Anglo ES Whites Farm Ltd to undertake a Preliminary Ecological Appraisal (PEA) of Whites Farm, Barleylands Road, Basildon, Essex. This report accompanies a full planning application for a new Battery Energy Storage Site (BESS).

HLPC carried out an Extended Phase 1 Habitat Survey of the site in May 2021 and 2022 undertaken by a suitably experienced ecologist. Desk-based consultation was undertaken with Essex Wildlife Trust Records Centre for records of protected species and habitats within 2km of the site. No statutorily designated sites, non-statutorily designated sites or ancient woodlands are anticipated to be adversely affected by the proposed development.

The site is comprised heavily grazed grassland fields with fences land and has low ecological value. Access will utilise existing access tracks. Temporary loss of grassland is required to install the connection and permanent loss of grassland is required to construct the main facility. The scheme includes new native hedgerow planting.

Vegetation suitable for supporting nesting birds should be removed outside the nesting bird season which runs March to August inclusive unless preceded by a survey by an experienced ecologist. Given the mobility of badgers as a precaution a pre-commencement survey for this species should be undertaken and secured via condition. Any excavations should be covered overnight to avoid the accidental trapping of commuting or foraging badger. Alternatively, excavations can feature a ramp, placed at a 45° angle, to allow badger to escape. All materials used on site should be securely stacked to avoid collapse should they be investigated by badger. Construction should be undertaken following an industry standard Construction and Environmental Management Plan to minimise the risk of pollution events. It is recommended as a precaution that construction proceeds under a Reasonable Avoidance Method Statement with respect to great crested newts and common amphibians and secured via planning condition.

The mitigation referred to above and enhancement measures could be secured through planning conditions and would result in a net ecological enhancement at a site level.

## 1.0 INTRODUCTION

### 1.1 Terms of reference

- 1.1.1 Harris Lamb Property Consultancy (HLPC) was commissioned by Anglo ES Whites Farm Ltd to undertake a Preliminary Ecological Appraisal (PEA) at Whites Farm, Barleylands Road, Basildon, Essex (TQ 69854 91483), hereafter termed the 'site' (see Figure 1 below).

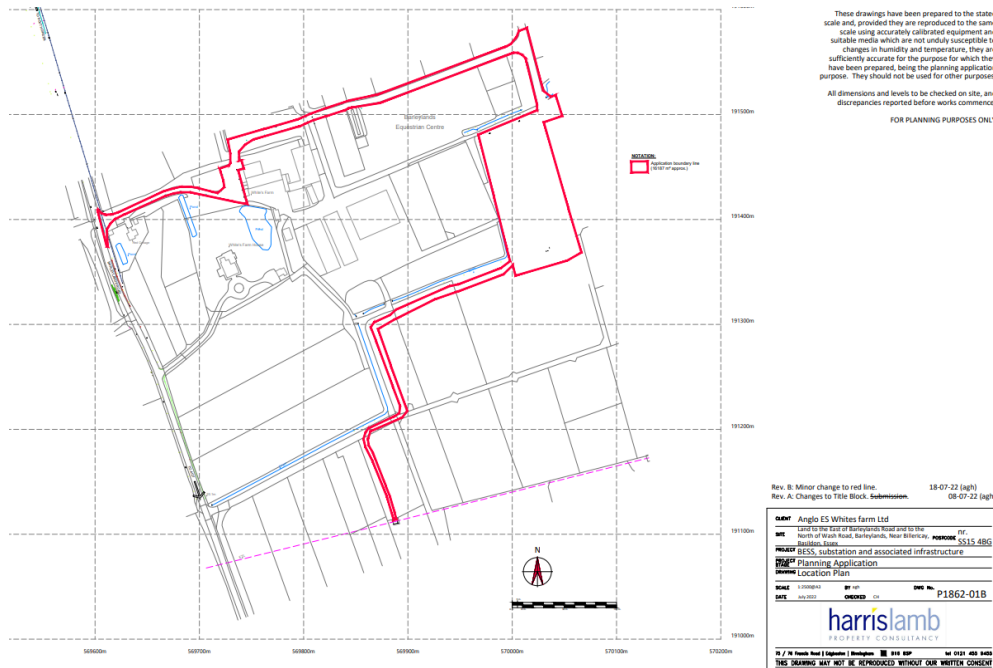


Figure 1: Site location. Not to scale.

### 1.2 Site location

- 1.2.1 The site is c. 1.6ha in extent and comprises heavily grazed grassland and bare ground at the time of survey. The site is set within an equestrian centre and is a grassland field heavily grazed by horses. The site is partially contained by fences.

### 1.3 Proposed development

- 1.3.1 The proposed development is for the construction of a battery energy storage system facility and substation. The proposals also include for new Points of Connection (PoC) to Distribution Network Operator (DNO) equipment with associated cable routing. Access onto Barleylands Road to the proposed battery energy storage system facility will use the existing access tracks which would be upgraded.

## **1.4 Purpose of this report**

1.4.1 The purpose of this report is to:

- Identify key ecological constraints associated with the proposed development and input into the scheme design to minimise ecological impacts where possible.
- Set out mitigation measures required to ensure compliance with nature conservation legislation and address potentially significant ecological effects.
- Identify how mitigation measures could be secured.
- Provide an assessment of significance of residual effects.
- Identify appropriate enhancement measures.
- Identify appropriate post-construction monitoring if relevant.

## **2.0 PLANNING CONTEXT**

### **2.1 National Planning Policy Framework (NPPF)**

2.1.1 National Planning Policy Framework (NPPF)<sup>1</sup> is the top tier of planning policy. The Framework provides guidance to local authorities and other agencies on planning policy and the operation of the planning system. Section 15 relates to ‘Conserving and enhancing the natural environment’.

2.1.2 Relevant policies in relation to planning application include Paragraphs:

“174. Planning policies and decisions should contribute to and enhance the natural and local environment by:

a) protecting and enhancing valued landscapes, sites of biodiversity or geological value and soils (in a manner commensurate with their statutory status or identified quality in the development plan); b) recognising the intrinsic character and beauty of the countryside, and the wider benefits from natural capital and ecosystem services – including the economic and other benefits of the best and most versatile agricultural land, and of trees and woodland; c) maintaining the character of the undeveloped coast, while improving public access to it where appropriate; d) minimising impacts on and providing net gains for biodiversity, including by establishing coherent ecological networks that are more resilient to current and future pressures; e) preventing new and existing development from contributing to, being put at unacceptable risk from, or being adversely affected by, unacceptable levels of soil, air, water or noise pollution or land instability. Development should, wherever possible, help to improve local environmental conditions such as air and water quality, taking into account relevant information such as river basin management plans; and f) remediating and mitigating despoiled, degraded, derelict, contaminated and unstable land, where appropriate.

179. To protect and enhance biodiversity and geodiversity, plans should: a) Identify, map and safeguard components of local wildlife-rich habitats and wider ecological networks, including the hierarchy of international, national and locally designated sites of importance for biodiversity<sup>61</sup>; wildlife corridors and stepping stones that connect them; and areas identified by

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<sup>1</sup> National Planning Policy Framework (2021) July 2021 Ministry of Housing Communities and Local Government

national and local partnerships for habitat management, enhancement, restoration or creation<sup>62</sup>; and b) promote the conservation, restoration and enhancement of priority habitats, ecological networks and the protection and recovery of priority species; and identify and pursue opportunities for securing measurable net gains for biodiversity.

- 2.1.3 180. When determining planning applications, local planning authorities should apply the following principles: a) if significant harm to biodiversity resulting from a development cannot be avoided (through locating on an alternative site with less harmful impacts), adequately mitigated, or, as a last resort, compensated for, then planning permission should be refused; b) development on land within or outside a Site of Special Scientific Interest, and which is likely to have an adverse effect on it (either individually or in combination with other developments), should not normally be permitted. The only exception is where the benefits of the development in the location proposed clearly outweigh both its likely impact on the features of the site that make it of special scientific interest, and any broader impacts on the national network of Sites of Special Scientific Interest; c) development resulting in the loss or deterioration of irreplaceable habitats (such as ancient woodland and ancient or veteran trees) should be refused, unless there are wholly exceptional reasons<sup>63</sup> 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.”

## **2.2 Relevant local planning policy**

- 2.2.1 Identified relevant local planning policy is summarised in Table 1 below.



**Table 1: Summary of relevant biodiversity local planning policy**

Policy	Description
Basildon District Local Plan Saved Policies – September 2007	
Policy BAS C1	The Council will not permit development which may have an adverse material effect on a Site of Special Scientific Interest (SSSI). When considering planning applications affecting Sites of Importance for Nature Conservation (SINC) or other important wildlife habitats, the Council will have full regard to the nature conservation value of the site. The criteria which the Council will take into account in dealing with planning applications affecting SSSIs, SINC and other important habitats will be: <ul style="list-style-type: none"> <li>i. effects on significant nature conservation or scientific features of the site;</li> <li>ii. the importance of the site and of any nature conservation or scientific features affected; and</li> <li>iii. any benefits of the proposed development.</li> </ul>
Policy BAS C5	Existing woodlands should be retained, especially where they are Ancient Woodlands. Appendix One identifies the Ancient Woodlands located within the District. These are identified on the Proposals Map
Policy BAS C7	The Council will not permit development, including recreational proposals, which would cause harm to the landscape, the open and rural character or the wildlife of the marshes Coastal Protection Area.
Policy BAS C13	The Council will not normally permit development which may adversely and materially affect any river, pond, lake or other important water feature or wildlife habitat of acknowledged importance.

### 2.3 Natural Environment and Rural Communities Act

- 2.3.1 Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act, which came into force on 1st Oct 2006 requires the Secretary of State to publish “a list of habitats and species which are of principal importance for the conservation of biodiversity in England”. This list guides decision-makers such as councils and statutory undertakers, as to their duty under Section 40 of the NERC Act, to “have regard to the conservation of biodiversity in England” in day-to-day decisions.
- 2.3.2 There are currently 56 habitats of principal importance and 943 species of principal importance included on the S41 list. The habitats recorded were considered against the list of species likely in the site’s geographical area and supporting habitats.

### **3.0 METHODOLOGY**

#### **3.1 Study area**

3.1.1 The study area is the application boundary shown on Figure 1. The study area was extended beyond the site where appropriate to undertake species-specific appraisals as detailed below. The study area and assessments comply with industry guidance from the CIEEM Guidelines for Preliminary Ecological Appraisal<sup>2</sup>.

#### **3.2 Desk study**

3.2.1 The desktop study was undertaken in April 2021 and included:

- Essex Wildlife Trust Records Centre (EWTRC),
- Multi Agency Geographic Information for the Countryside (MAGIC) website<sup>3</sup>,
- Ordnance Survey (OS)<sup>4</sup>, and
- Aerial imagery<sup>6</sup>.

3.2.2 The geographical extent of the search area for biodiversity information was related to the significance of sites and species and potential zones of influence which might arise from development within the site. For this site the following search areas were considered to be appropriate:

- 10km around the site boundary for sites of International Importance (e.g. Special Area of Conservation (SAC), Special Protection Area (SPA), Ramsar site));
- 2km around the site boundary for sites of National or Regional Importance (e.g. Sites of Special Scientific Interest (SSSI)), protected or otherwise notable species and non-statutory designated sites of County Importance (e.g. Local Wildlife Sites (LWS));
- 1km for ancient woodland, and
- 2km for biological records (post-2000).

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<sup>2</sup> CIEEM (2018) Guidelines for Preliminary Ecological Appraisal, 2nd edition. Chartered Institute of Ecology and Environmental Management, Winchester

<sup>3</sup> www.magic.gov.uk accessed January 2022

<sup>4</sup> www.bing.co.uk accessed January 2022

3.2.3 No pre-application consultation relating to ecology was undertaken at the time of writing this report.

### **3.3 Field survey**

#### Flora

3.3.1 In May 2021 and 2022, HLPC carried out an Extended Phase 1 Habitat Survey of the site. The survey was carried out by an experienced and suitably qualified ecologist and a full member of CIEEM. The survey was undertaken in accordance with 'Extended Phase 1' methodology<sup>5</sup>.

3.3.2 Specific habitat features were mapped using Target Notes (TN) to record ecological features of particular note where necessary.

#### Fauna

3.3.3 The fauna included within this assessment is based on the habitats present, data from the desk-based searches, and the following legislation<sup>6</sup>:

- Wildlife and Countryside Act 1981 (as amended);
- The Protection of Badgers Act 1992;
- The Conservation of Habitats and Species Regulations 2017 (as amended);
- The Countryside Rights of Way Act 2000; and
- The NERC Act 2006 – S41 Species of Principal Importance (SPI) for the conservation of biodiversity.
- The Environment Act 2021.

#### *Badgers*

3.3.4 The site and where accessible up to 30m from the site boundary was searched for evidence of badger *Meles meles* activity, such as mammal paths, setts, snuffle holes or latrines was recorded.

#### *Bats*

3.3.5 The potential for the site and immediate surrounds to support foraging and commuting bats was also assessed, with particular regard given to the

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<sup>5</sup> Joint Nature Conservation Committee (2010) Handbook for Phase 1 Habitat Survey. A Technique for Environmental Audit.

<sup>6</sup> See [www.legislation.gov.uk](http://www.legislation.gov.uk)

presence of continuous treelines, watercourses and hedgerows providing good connectivity in the landscape, and the presence of varied habitat such as scrub, woodland, grassland and open water in the vicinity.

#### *Birds*

- 3.3.6 Bird species identified at the time of survey were noted and nesting birds recorded as seen. An assessment of habitats was undertaken to determine the likely value to breeding and foraging birds.

#### *Amphibians*

- 3.3.7 Waterbodies within 250m of the field subject to landtake was searched for using Ordnance Survey maps and arial imagery<sup>7</sup>, they were then assessed for their suitability to support great crested newt *Triturus cristatus* and other common amphibian species, as outlined by Froglife<sup>8</sup> using desk-based information.

- 3.3.8 Three ponds were recorded within 250m of the area of landtake, and subsequent eDNA samples were collected of the two ponds considered suitable. Water environmental DNA (eDNA) samples were taken and were sent for analysis at Sure Screen Scientific, in accordance with methodology approved by Natural England (Biggs *et al.*, 2014<sup>9</sup>). Twenty samples were taken from the pond, spaced as evenly as possible around the pond margin, and targeted to areas where there is vegetation which may be being used as egg laying material and open water areas which newts may be using for displaying. Subsequent samples were returned to Sure Screen Scientific for DNA processing. The results of the eDNA analysis are detailed in Appendix 7.2.

#### *Reptiles*

- 3.3.9 An assessment of the suitability of the habitats present to support common reptile species was undertaken. In accordance with current guidance, this assessment involved a review of habitats and habitat structure for suitable shelter for reptiles such as areas of scrub and woodpiles, grassland with

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<sup>7</sup> [www.bing.com/maps](http://www.bing.com/maps) accessed January 2022

<sup>8</sup> Langton, T.E.S., Beckett, C.L., and Foster, J.P. (2001), Great Crested Newt Conservation Handbook, Froglife, Halesworth.

<sup>9</sup> Biggs J *et al.*, (2014). Analytical and methodological development for improved surveillance of the Great Crested Newt. Defra Project WC1067. Freshwater Habitats Trust: Oxford.

well-developed and varied structure, areas suitable for basking, large tussocks etc.

*Other notable species*

- 3.3.10 Signs of other notable species were recorded as seen.

*Legally controlled species*

- 3.3.11 Evidence of species listed on Schedule 9 of the Wildlife and Countryside Act (1981) as amended were recorded as seen.

*Scoped out*

- 3.3.12 No watercourses were recorded within 30m of the site and as such riparian mammals (otter *Lutra lutra* and water vole *Arvicola amphibius*) and white-clawed crayfish *Austropotamobius pallipes* are not considered to be a receptor of the proposed development and have therefore been scoped out of any further assessment.
- 3.3.13 No hedgerows are present on site or anticipated to be affected by the proposed development and as such hazel dormice *Muscardinus avellanarius* have been scoped out of this assessment.

### **3.4 Assessment methodology**

- 3.4.1 The importance of ecological features and impact assessment methodology is based on CIEEM guidelines for ecological impact assessment in the UK and Ireland<sup>10</sup>. Significant effects are defined as “*an effect that either supports or undermines biodiversity conservation objectives for important ecological features*” (CIEEM, 2016). A significant effect does not necessarily equate to an affect so severe that consent for a project should be refused planning permission if they can demonstrate following the mitigation hierarchy (avoid, mitigate, compensate) has been applied as part of the decision-making process. Significant effects are qualified with a scale: international and European, national, regional, metropolitan/county, local or within the zone of influence (defined here as site level).

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<sup>10</sup> CIEEM (2018) Guidelines for Ecological Impact Assessment in the UK and Ireland: Terrestrial, Freshwater, Coastal and Marine version 1.1. Chartered Institute of Ecology and Environmental Management, Winchester

3.4.2 This report assumes that construction will commence within 1-2 years of the date of the assessment in accordance with the British Standard 42020:2013<sup>11</sup> unless otherwise stated.

Determining importance

3.4.3 Determining the importance of identified ecological features is based on CIEEM guidance. 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/seminatural vegetation types, including examples of naturally species-poor communities;
- species on the edge of their range, particularly where their distribution is changing as a result of global trends and climate change.

3.4.4 Geographic context is also considered within a defined geographical context.

- International and European.

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<sup>11</sup> BSI (2013) Biodiversity – Code of Practice for Planning and Development.

- National.
- Regional.
- Metropolitan, County, vice-county or other local authority-wide area.
- Local (including district or borough context) or within a zone of influence (here termed the site).

### **3.5 Assessment limitations**

- 3.5.1 Ecological surveys are limited by factors that affect the presence of plants and animals, such as the time of year, weather, migration patterns and behaviour. The initial survey was undertaken in May, which is within the preferable window to survey for botanical species, it is also inside of breeding bird season (March to August inclusive).
- 3.5.2 Any absence of desk study records cannot be relied upon to infer absence of a species/habitat as the absence of records may be a result of under-recording within the given search area.
- 3.5.3 Phase 1 Habitat survey aimed to characterise the habitat on site and is not intended to give a complete list of plant species present.
- 3.5.4 The phase 1 habitat survey does not constitute a full botanical survey, or a Phase 2 pre-construction survey that would include GIS mapping for invasive or protected plant species.

## **4.0 RESULTS**

### **4.1 Ecological designations**

#### Internationally designated sites for nature conservation

- 4.1.1 Essex Estuaries Special Area of Conservation (SAC) is located c. 5.2km to the south-east of the site boundary.
- 4.1.2 The site is a coastal plain estuarine system with associated open coast mudflats and sandbanks. The site comprises the major estuaries of the Colne, Blackwater, Crouch and Roach rivers. Essex Estuaries contains a very wide range of characteristic marine and estuarine sediment communities and some diverse and unusual marine communities in the lower reaches, including rich sponge communities on mixed, tide-swept substrates. Subtidal areas have a very rich invertebrate fauna, including the reef-building worm *Sabellaria spinulosa*, the brittlestar *Ophiothrix fragilis*, crustaceans and ascidians.
- 4.1.3 This site is considered to be of international importance to nature conservation.
- 4.1.4 Crouch & Roach Estuaries Ramsar and Special Protection Area (SPA) is located c. 9.3km to the north-east of the site boundary. The site includes the tidal estuaries of the Crouch and Roach Rivers, an extensive and diverse saltmarsh, and a narrow strip of tidal mud. The Dark-bellied Brent Goose, *Branta bernicla bernicla*, occurs in internationally important numbers, and three other species of wader and wildfowl occur in nationally important numbers. The site supports a diversity of aquatic and terrestrial invertebrates and an outstanding assemblage of nationally scarce plants.
- 4.1.5 This site is considered to be of international importance to nature conservation.
- 4.1.6 Thames Estuary and Marshes SPA and Ramsar is found c. 10km to the south of the site boundary. The site comprises a complex of brackish, floodplain grazing marsh ditches, saline lagoons and intertidal saltmarsh and mudflat along the River Thames between Gravesend and Sheerness in Essex and Kent. The habitats support internationally important numbers of wintering waterfowl, and the saltmarsh and grazing marsh are of international importance for their diverse assemblages of wetland plants and



invertebrates. The site performs important hydrological functions, including shoreline stabilisation, sediment trapping, flood water storage and desynchronization of flood peaks, and maintenance of water quality by removal of nutrients.

- 4.1.7 This site is considered to be of international importance to nature conservation.

Nationally designated sites for nature conservation

- 4.1.8 No nationally designated sites for nature conservation were found within 2km of the site boundary.

Non-statutorily designated sites for nature conservation

- 4.1.9 Seven non-statutorily designated sites Local Wildlife Sites (LWSs) were identified within 2km of the site as summarised in Table 2.

**Table 2: Non-statutorily designated sites recorded within 2km of the site**

Site Name	Approx. Location from the Site	Description
Noak Bridge Nature Reserve – LWS	700m south	Noak Bridge Nature Reserve, created as a receptor site for Great Crested Newts and other herptiles, including Adder, during the construction of adjacent housing. A 2008 survey recorded a peak count of 95 Great Crested Newts from the five ponds on the site.
Crays Hall Meadow – LWS	1.6km north-east	This riverside meadow comprises a varied mix of grass species including Yorkshire fog <i>Holcus lanatus</i> , creeping bent-grass <i>Agrostis stolonifera</i> , meadow barley <i>Hordeum secalinum</i> and tufted hair-grass <i>Deschampsia cespitosa</i> . This site represents one of the few remaining species-rich grasslands within the Crouch valley.
St Nicholas Church Complex – LWS	1.6km south-west	This site is primarily designated in recognition of its reptile and amphibian populations, although the extent of relatively unimproved, unintensively managed grassland is also important.
Parsonage Farm Green Lane – LWS	1.6km north	The hedgerow network is of uniformly good quality, many with broad based, tall hedges and old standards. There is minimal semi-natural habitat associated with most of the hedges, but the site acts as a wildlife corridor between the River Crouch to the south and the ancient woods to the north.
Nuttons Wood – LWS	1.7km east	An area of ancient woodland, dominated pedunculate oak <i>Quercus robur</i> , featuring occasional wild service trees <i>Sorbus torminalis</i> . The site includes a small section of

Site Name	Approx. Location from the Site	Description
		more recent but very similar woodland at its eastern end.
Little Burstead Woods - LWS	1.9km west	An unusual chain of three woodlands and a narrow strip of possibly ancient streamside woodland along the course of the infant River Crouch.
River Crouch at Noak Bridge – LWS	1.7km west	The area consists of two distinct habitats: the River Crouch and its banks; and a flood alleviation area east of the river. The river supports a dense and varied emergent and bank side vegetation. Water vole <i>Arvicola amphibius</i> are active on the river. The flood alleviation area includes a scrubby, raised ridge surrounded by low-lying, herb rich grassland.

#### Ancient woodland

4.1.10 No areas of ancient woodland were recorded within 1km of the site.

#### Priority habitat

4.1.11 No pre-recorded Priority Habitats were recorded on the site, or adjacent to the boundary.

### **4.2 Habitats**

4.2.1 All habitats recorded within the site are described below and are shown on Figure 2.

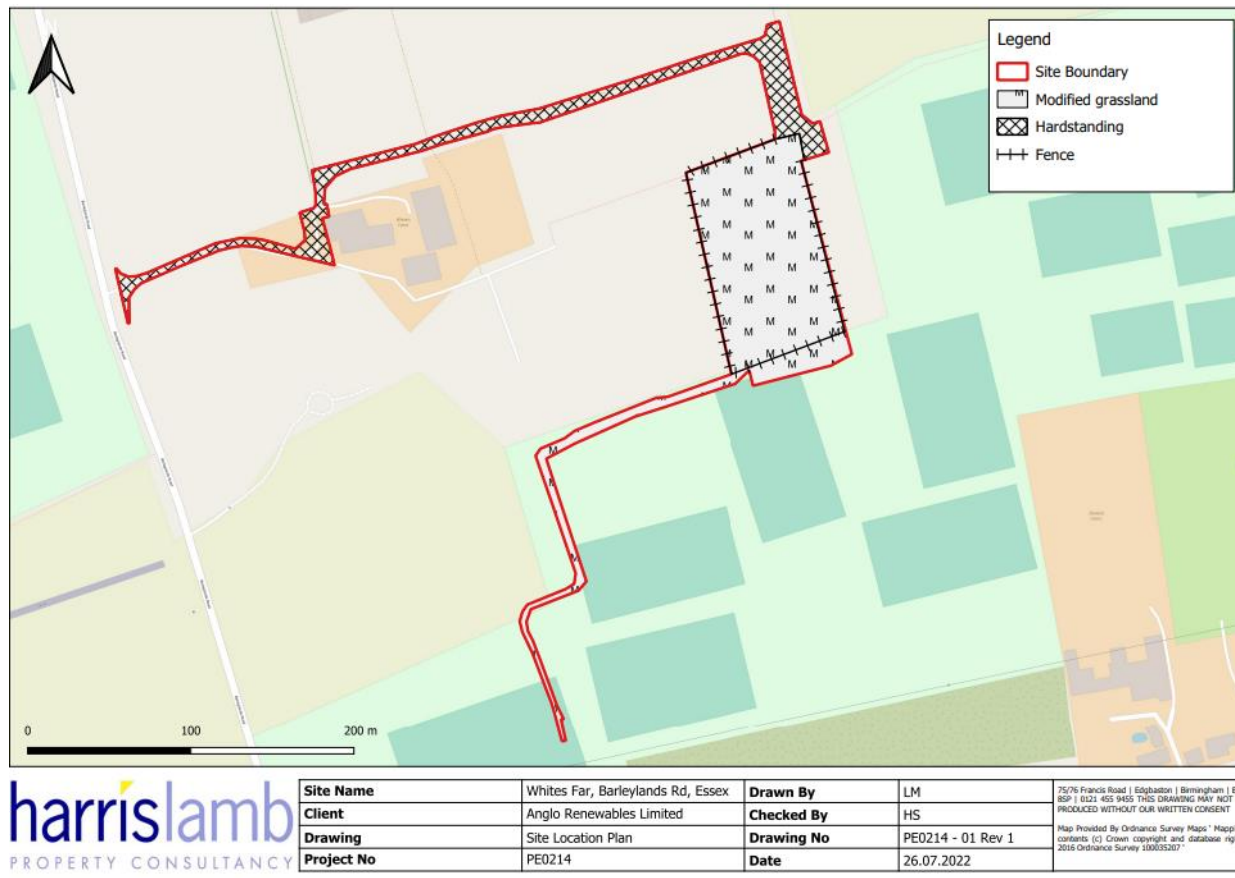


Figure 2: Phase 1 Habitat map. Not to scale.

Hard standing/bare ground

- 4.2.2 The site is accessed by an existing access track dominated by hard standing and bare compacted earth. The generally lacks vegetation and is considered to be of importance to nature conservation at a site level only.

Improved Grassland

- 4.2.3 The site is dominated by improved grassland which is heavily grazed by horses. The improved grassland was dominated by perennial rye-grass *Lolium perenne*, with occasional fescue *Festuca* sp. The forbs found within the grassland included common species such as ribwort plantain *Plantago lanceolata*, dandelion *Taraxacum officinale* agg, white clover *Trifolium repens*, creeping buttercup *Ranunculus repens*.
- 4.2.4 These habitats are common and widespread and considered to be of importance to nature conservation at a site level only.

**4.3 Species**

Amphibians

- 4.3.1 One hundred and eighty records of great crested newts within 2km of the site were provided by EWTRC at two locations; Noak Bridge Reserve located c. 900m south of the site dated 2008 and Basildon, Pound Lane located c. 1.7km south west of the site dated 2017 and 2017.
- 4.3.2 No waterbodies were found on site. Three ponds were identified (P1 - NGR: TQ70037 91521; P2 - TQ 70208 91277 and P3 - TQ 69752 91378; see Appendix 7.2 for locations) within 250m of the initial site boundary via ordinance survey data and aerial.
- 4.3.3 An eDNA sample was taken in June 2021 and June 2022 from P1 and P3 respectively. P2 was considered to be sub-optimal for supporting this species (See Appendix 7.2 for assessment results). Samples from P1 and P3 were sent for laboratory analysis. The samples returned negative for the presence of great-crested newts (Appendix 7.2).
- 4.3.4 Based on the lack of identified suitable newt breeding ponds within 250m of the site and poor suitability of heavily grazed grassland habitat for supporting this species in their terrestrial phase, great crested newts and common amphibians are not considered likely to be a potential receptor with respect to the proposed development.

### Reptiles

- 4.3.5 Records of grass snake *Natrix helvetica*, slow worm *Anguis fragilis* and common lizard *Zootoca vivipara* within 2km of the site was provided by were identified within 2km of the site.
- 4.3.6 The habitats surveyed are considered to be sub-optimal for supporting populations of reptiles due to the dominance of heavily grazed grassland and lack of complex habitat structure typically required by reptiles and as such are not considered likely to be a potential receptor with respect to the proposed development.

### Birds

- 4.3.7 Multiple records of bird species within 2km of the site were identified by EWTRC, including species listed on the Birds of Conservation Concern Red List such as Yellowhammer *Emberiza citrinella*, Song Thrush *Turdus philomelos* and Skylark *Alauda arvensis*.
- 4.3.8 The heavily grazed grassland provides limited foraging habitat for a range of bird species. No evidence of ground nesting species was recorded during either survey visit and the heavily grazed nature of the field mean the site is considered unsuitable for supporting ground nesting birds.
- 4.3.9 Given the site is limited in extent and dominated by heavily grazed grassland, it is not anticipated that the site would be of value to urban and farmland bird species at greater than a site level.

### Bats

- 4.3.10 Bat species reported within 2km of the site by EWTRC were common pipistrelle *Pipistrellus pipistrellus*, soprano pipistrelle *Pipistrellus pygmaeus* Daubenton's Bat *Myotis daubentonii*.

### *Roosting*

- 4.3.11 No trees or buildings are present within the site which are to be affected by the proposed development and therefore roosting bats are not considered to be a receptor with respect to the proposed development.

### *Foraging*

- 4.3.12 No hedgerows were present on the site or to be affected by the proposed development. Heavily grazed grassland of limited extent is considered to be of site level value for foraging and commuting bats only.

Badger

- 4.3.13 Several records of badger were provided by EWTRC within 2km of the site.
- 4.3.14 No evidence of badger activity was recorded during the site survey visits. The habitats on site are suboptimal for sheltering badgers due to the lack of suitable habitat. Badgers are highly mobile and it cannot be entirely ruled out that they may use the site occasionally for foraging and may be potential receptor with respect to the proposed development.

Invasive species

- 4.3.15 No evidence of invasive species on Schedule 9 of the Wildlife and Countryside Act (1981) as amended were recorded at the time of survey.

Other notable species

- 4.3.16 Hedgehogs have been recorded within 2km of the site. The hedgerows along the site boundaries are suitable for supporting this species and hedgehogs could be a potential receptor with respect to the proposed development.

## **5.0 ASSESSMENT OF EFFECTS AND MITIGATION MEASURES**

### **5.1 The proposed development**

5.1.1 The proposed development is for the construction of a battery energy storage system facility and substation. The proposals also include for new Points of Connection (PoC) to Distribution Network Operator (DNO) equipment with associated cable routing that will require temporary ground disturbance to install. Access onto Barleylands Road to the proposed battery energy storage system facility will use the existing access tracks which would be upgraded.

5.1.2 The following assessment is based on the layout produced by MHP Chartered Landscape Architects (21317-101 – C dated 1/06/2022).

### **5.2 Statutory and non-statutory designated sites for nature conservation**

5.2.1 Given the nature of the species-poor habitats present on site and the highly limited extent, together with the separation and distance of the site from the statutorily designated sites within 10km, no mechanism has been identified associated with the proposed development which is likely to affect identified statutorily designated sites.

5.2.2 Given the nature of the species-poor habitats present on site and the highly limited extent, together with the separation and distance of the site from the non-statutorily designated sites within 2km, no mechanism has been identified associated with the proposed development which is likely to affect identified statutorily designated sites.

5.2.3 There is limited potential for temporary pollution events to affect the local LWSs without mitigation. It is recommended that construction is undertaken following a Construction and Environmental Management Plan (CEMP) which outlines measures to minimise the risk of pollution events and noise/dust disturbance.

### **5.3 Habitats**

#### Potential impacts

5.3.1 The proposed development will require both permanent and temporary land-take of heavily grazed grassland fields. Based on the layout it is assumed that the site access route will utilise the existing farm access route and will not require loss of trees or hedgerows.

- 5.3.2 The proposed scheme includes c. 386.5 m of new native hedgerow with 5no. native species that would deliver 100% Biodiversity Net Gain (BNG) for hedgerows.

Mitigation measures

- 5.3.3 Retained trees and hedgerows should be protected through the construction phase following advice set out within the British Standard Tree Survey.
- 5.3.4 The temporary disturbance of grassland to install the connection should be re-seeded with an appropriate grassland mix upon completion.

Enhancement

- 5.3.5 No further enhancement measures have been identified at this stage.

Monitoring

- 5.3.6 The success of the detailed landscape scheme could be monitored through standard landscape management practices.

Significance

- 5.3.7 Assuming the detailed landscape is implemented as set out in the planning application it is anticipated that the proposed development would result in a net enhancement for hedgerow habitat and a net loss of grassland habitat at site level.

**5.4 Species**

- 5.4.1 The proposed development will require the permanent loss of c. 0.8 ha of heavily grazed grassland and temporary loss of c. 0.2 ha of grassland. No confirmed great crested newt breeding habitat was recorded in 250m of the habitats to be affected. The proposed development includes planting of hedgerow which could benefit sheltering amphibians over the long term.
- 5.4.2 Given the number of records of great crested newts in the wider landscape a precautionary approach is recommended as follows.

*Mitigation measures*

- 5.4.3 Based on the survey results and likely impacts, it is considered that the proposed development is unlikely to affect great crested newts and as a precaution works could proceed under a Reasonable Avoidance Method Statement (RAMS) for this species.



- 5.4.4 A RAMS should be based on Natural England guidance and an ecologist's expert knowledge of the species and its requirements and should be agreed with the LPA prior to construction commencing. The RAMS should include common amphibians.

*Significance*

- 5.4.5 Assuming the above measures are undertaken and secured through a planning condition, it is anticipated that the proposed development would not result in impact to common amphibians and great crested newts, should in the unlikely event they be present at the time of works.

*Enhancement*

- 5.4.6 No further enhancement is considered to be required.

*Monitoring*

- 5.4.7 No additional monitoring is considered to be required at this stage.

Birds

- 5.4.8 All species of native British birds are protected by the Wildlife and Countryside Act 1981 (as amended) making it an offence to intentionally kill, injure or take any species of wild bird, and to take, damage or destroy their nests or eggs. Several species receive higher levels of protection from disturbance under the Schedule 1 of the Act. Several declining bird species are also Priority Species under the NERC Act 2006.

*Potential impacts*

- 5.4.9 Loss of small area of heavily grazed grassland may reduce foraging habitat for urban and farmland bird species on a limited scale.
- 5.4.10 The proposed development includes native hedgerow and native wildflower planting which will benefit a wide range of urban and farmland bird species at a site level.

*Mitigation measures*

- 5.4.11 As a precautionary approach should any suitable nesting vegetation should be removed (if required) outside the nesting bird season (nesting season runs March-August, inclusive) where practicable. Should these works be scheduled during the nesting bird season they should be checked by a suitably experienced ecologist immediately beforehand. In order to prevent

disturbance or harm to individuals, work should not be carried out within a minimum of 5m of any in-use nest, although this distance could be more depending on the sensitivity of the species.

*Enhancement*

- 5.4.12 No further enhancements are considered to be required.

*Monitoring*

- 5.4.13 No additional monitoring is considered to be required outside the standard landscape planting maintenance requirements.

*Significance*

- 5.4.14 Assuming the above measures are secured through a planning condition it is anticipated that the proposed development would enhance habitats to support a range of urban and farmland bird assemblages at a site level.

Bats

- 5.4.15 In Britain all bat species and their roosts are legally protected, by both the Wildlife and Countryside Act 1981 (as amended) and The Conservation of Habitats and Species Regulations 2017 (as amended). Several species are also Priority Species under the NERC Act 2006.

*Potential impacts*

- 5.4.16 Loss of small area of heavily grazed grassland may reduce foraging habitat for bat species on a limited scale.
- 5.4.17 The proposed development includes wildlife native hedgerow planting which would be of benefit to foraging bats within the local area.
- 5.4.18 Any introduced artificial lighting could disrupt potential commuting and foraging activities.

*Mitigation measures*

- 5.4.19 New lighting has been kept to a minimum and be sensitive to local bat foraging and commuting activity and avoids light spill over the new boundary hedgerows/planting.
- 5.4.20 It should be appreciated that bats require only small cavities for roosting. It has been assumed no hedgerows or trees will be affected by the proposals. Should this change an assessment of trees prior to felling for roosting bats

should be undertaken by a suitably experienced ecologist. Should a bat be discovered during works, works in that area should cease and a licensed bat ecologist contacted for further advice.

*Enhancement*

- 5.4.21 No further enhancements are considered to be required.

*Monitoring*

- 5.4.22 No additional monitoring is considered to be required at this stage.

*Significance*

- 5.4.23 Assuming that the above measures are secured through a planning condition, it is anticipated that the proposed development would not adversely affect bats and new planting would be of benefit to bat populations at a site level.

Badgers

- 5.4.24 Badgers and their setts are protected under the Protection of Badgers Act 1992. It is an offence under the act to kill, injure or take a badger. It is also an offence to destroy, damage or obstruct a currently active badger sett, or to disturb animals within the sett.

*Potential impacts*

- 5.4.25 Badgers are highly mobile and can establish or re-open a disused sett or create new sett entrances at any time. If badgers become established within 30m of the site prior to construction, there is a risk of disturbance from construction activities.

*Mitigation measures*

- 5.4.26 Prior to construction commencing a badger survey should be undertaken to determine the latest status with regards to badgers and any required mitigation put in place as appropriate.
- 5.4.27 As a precautionary approach, any excavations should be covered overnight to avoid the accidental trapping of commuting or foraging badger. Alternatively, excavations can feature a ramp, placed at a 45° angle, to allow badger to escape. All materials used on site should be securely stacked to avoid collapse should they be investigated by badger.

*Enhancement*

5.4.28 None anticipated to be required at this stage.

*Monitoring*

5.4.29 No additional monitoring is considered to be required at this stage.

*Significance*

5.4.30 Assuming the above measures are secured through a planning condition it is anticipated that the proposed development would not result in an adverse impact to badgers, should they be present at the time of works.

Other notable species

*Potential impacts*

5.4.31 The habitats on site could be used by hedgehogs. Hedgehogs are listed as a Priority Species under the NERC Act 2006.

*Mitigation measures*

5.4.32 Should a hedgehog be found, it should be moved using a gloved hand to a place of safety and shelter.

*Enhancement*

5.4.33 No enhancement measures considered to be required.

*Monitoring*

5.4.34 No monitoring is considered to be required.

*Significance*

5.4.35 Assuming the above measures are secured through a planning condition it is anticipated that the proposed development would not result in an adverse impact to hedgehog, should they be present.

## **6.0 CONCLUSIONS**

- 6.1.1 Based on the data collected and information provided about the proposed development, it is anticipated that impacts to species and habitats identified within this report could be avoided or mitigated and enhanced. This can be secured through appropriately worded planning conditions.
- 6.1.2 On this basis there are no insurmountable constraints to development from an ecology or biodiversity perspective and the proposals would accord with relevant national and local planning policy on such matters.

**7.0 APPENDICES**

**7.1 Photographs**

## 7.2 Newt Survey Results

Pond locations



Location of ponds. Source [www.gridreferencefinder.com](http://www.gridreferencefinder.com)



Folio No: E10455  
 Report No: 1  
 Purchase Order: EN0078  
 Client: HARRIS LAMB  
 Contact: Rob Harrison

## TECHNICAL REPORT

### ANALYSIS OF ENVIRONMENTAL DNA IN POND WATER FOR THE DETECTION OF GREAT CRESTED NEWTS (TRITURUS CRISTATUS)

#### SUMMARY

When great crested newts (GCN), *Triturus cristatus*, inhabit a pond, they continuously release small amounts of their DNA into the environment. By collecting and analysing water samples, we can detect these small traces of environmental DNA (eDNA) to confirm GCN habitation or establish GCN absence.

#### RESULTS

**Date sample received at Laboratory:** 20/05/2021  
**Date Reported:** 20/05/2021  
**Matters Affecting Results:** None

Lab Sample No.	Site Name	O/S Reference	SIC	DC	IC	Result	Positive Replicates
4381	Barleylands P1	TQ70037 91521	Pass	Pass	Pass	Negative	0

If you have any questions regarding results, please contact us: [ForensicEcology@surescreen.com](mailto:ForensicEcology@surescreen.com)

**Reported by:** Chris Troth

**Approved by:** Chris Troth



P2

		Pond 2
Sl <sub>1</sub>	Location	Zone A
Sl <sub>2</sub>	Pond Area	125m <sup>2</sup>
Sl <sub>3</sub>	Pond Drying	Never
Sl <sub>4</sub>	Water Quality	Poor
Sl <sub>5</sub>	Shade	0-60%
Sl <sub>6</sub>	Fowl	Major
Sl <sub>7</sub>	Fish	Absent
Sl <sub>8</sub>	Ponds	8
Sl <sub>9</sub>	Terrestrial Habitat	Moderate
Sl <sub>10</sub>	Macrophytes	<1%
HSI		0.41
Suitability		<b>Poor</b>



Folio No: E13722  
 Report No: 1  
 Purchase Order: EN 0328  
 Client: HARRIS LAMB  
 Contact: Stuart Silver

## TECHNICAL REPORT

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#### SUMMARY

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#### RESULTS

**Date sample received at Laboratory:** 20/05/2022  
**Date Reported:** 25/05/2022  
**Matters Affecting Results:** None

Lab Sample No.	Site Name	O/S Reference	SIC	DC	IC	Result	Positive Replicates
2994		<a href="#">TQ 69752</a> <a href="#">91378</a>	Pass	Pass	Pass	Negative	0

If you have any questions regarding results, please contact us: [ForensicEcology@surescreen.com](mailto:ForensicEcology@surescreen.com)

**Reported by:** Esther Strafford

**Approved by:** Chelsea Warner

### **7.3 Biodiversity Metric**

See Separate Biodiversity Metric Spreadsheet

DRAFT