



Preliminary Ecological Appraisal

Bramford Battery: Drainage Scheme, Ipswich

EDF Renewables

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SLR Project No.: 402.08525.00015

26 July 2023

Revision: 7

Revision Record

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Basis of Report

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1.0 Introduction

In November 2021, SLR Consulting Limited (SLR) was commissioned by Pivoted Power LLP (now part of EDF Renewables) to undertake a Preliminary Ecological Appraisal (PEA) of a parcel of land situated to the east of their approved Battery Energy Storage System (BESS) and south of Bullen Lane, Bramford, Ipswich IP8 4JL (UK Grid Reference: TM 10159 46040); the land is hereafter termed the 'Site'.

The drainage design for the BESS site originally consisted of a drainage swale, located to the south of BESS compound. A previous version of this report was submitted in support of this swale. This design received an objection from the Woodland Trust, due to the swale being located less than 15m from the boundary of an area of ancient woodland, Bullen Wood. Therefore, this updated report documents the alterations to the design for the drainage of the BESS compound. As an alternative to a drainage swale, a detention basin has been proposed.

1.1 Background

Planning permission has been granted for the construction and operation of an up to 57MW BESS, and related infrastructure with associated access, landscaping and drainage (planning application reference: DC/19/03008 as amended by applications DC/21/06919 and DC/22/05586). Consent has also been granted for the installation of connecting underground power cables between the National Grid substation and the battery compound (DC/22/01861) (approved 01 August 2022) and an amended bellmouth access (DC/22/05587) (approved 19th January 2023). An application for a non-material amendment to the BESS layout was approved on the 26th April 2023 (DC/23/01841).

An ecological appraisal was previously undertaken of the BESS site and surrounding field in May 2019 by Tetra Tech. The study area for the PEA survey included the new proposed detention basin site in the south-eastern part of the field despite the design change. The relevant report is provided in Appendix 2.

The above report concluded that the BESS compound and associated infrastructure was comprised of habitats of low ecological value (i.e. arable cropland and areas of modified grassland) and, as such, was not of significant ecological importance.

SLR was commissioned to undertake a PEA which would consider the area for the proposed detention basin in November 2021.

Immediately east of the Site, in the adjacent agricultural field, there is another consented development for a 100MW battery site, for Cambridge Power.

1.2 Site Description

The detention basin Site is 0.08 ha immediately east of the consented BESS compound. It is located approximately 2km west of the settlement of Bramford and c.7km north-west of Ipswich and comprises the south-eastern part of a 1.5 hectare (ha) agricultural (arable) field situated south of Bullen Lane and east of the National Grid Bramford Substation. Adjacent habitats include agricultural fields, hedgerows, small areas of grassland and an ancient woodland to the south (Bullen Wood – 5.5ha).

1.3 Details of the Proposed Development

The proposed detention basin would have an area of 0.08ha and a maximum depth of 0.75m. It would be situated to the east of the battery compound area. Water would enter the basin through a pipe from the eastern boundary of the battery compound, and via a HydroBrake to control the rate of discharge into the basin. Water would then flow out of the southern end of the basin, through another HydroBrake to restrict the flow, and down a gravel trench before being discharged into an existing



ditch along the southern boundary of the agricultural field. The gravel trench becomes progressively shallower, allowing for a diffuse discharge into the ditch.

Due to the shallow nature of the basin, it is likely to be ephemeral and only become full of water during period of heavy rain and storms.

1.4 Purpose of this Report

This report presents the findings of the Preliminary Ecological Appraisal.

The report seeks to:

- establish baseline conditions and determine the importance of ecological features present (or those that could be present), as far as is possible;
- to identify potential ecological constraints to the proposed development and make initial recommendations to avoid potentially significant effects on important ecological features, where possible;
- to identify potential requirements for mitigation, where possible, including mitigation measures that will be required and those that may be required (depending on results of further surveys or final scheme design);
- to establish any requirements for more detailed surveys; and
- to identify opportunities for biodiversity enhancements as part of the project.

1.5 Evidence of Technical Competence and Experience

Survey work and data collection was completed by William Putnam BSc MSc QCIEEM, a Project Ecologist from SLR. The remainder of this report was written by Anna Volak BSc (hons) QCIEEM, a Senior Field Ecologist from SLR. Both ecologists adhere to the CIEEM code of professional conduct.

This report has been subject to Quality Assurance review as per SLR policies by Andy Law a Principal Ecologist at SLR with over 32 years' experience as an ecologist. Andy is a Chartered Ecologist (CEcol), Chartered Environmentalist (CEnv) and Full Member of the Chartered Institute of Ecology and Environmental Management (MCIEEM).

1.6 Relevant Legislation and Policy

Generic Legislation and Policy text will be in Appendix 1.

1.6.1 Babergh Local Planning Policy

Chapter 2 – Environment

Species and Biodiversity Action Plan

EN01 Development will not be permitted which, directly or indirectly, would have a material adverse impact on existing or proposed Special Protection Areas, Special Areas of Conservation, Ramsar Sites, National Nature Reserves and Sites of Special Scientific Interest.

EN02 Development will not be permitted which, directly or indirectly, would have a material adverse impact on existing or proposed County Wildlife Sites, Regionally Important Geological/Geomorphological Sites or Local Nature Reserves.

EN03 Development will not be permitted which, directly or indirectly, would have a material adverse impact on protected species.

EN04 All development proposals must provide for the protection and, wherever possible, the retention, of existing semi-natural features on the site, including rivers, streams, ponds,



marshes, woodlands, hedgerows, trees, features of geological interest, and also including wildlife corridors and green wedges.

EN05 Development proposals that are acceptable in principle must, wherever approved, include measures to mitigate the effects of the development on features of biodiversity interest.

Habitat Creation

EN06 If development is proposed, the scope for habitat creation for wildlife will be actively sought. If new habitats are created, measures will be put in place to ensure suitable management and if appropriate, public access in perpetuity. The targets included in the Suffolk Biodiversity Action Plan will be taken into account.

Renewable Energy

EN10 Planning permission will be granted for development proposals for renewable energy generation, subject to there being no unacceptable impact on the local environment in terms of noise; smell; visual intrusion; residential amenity; relationship to adjoining uses; landscape characteristics; biodiversity; cultural heritage; public rights of way; the water environment; public safety; the treatment of waste products; and highway and access considerations.

1.6.2 Mid-Suffolk Local Planning Policy

Policy CS 5 – Mid Suffolk’s Environment

All development will maintain and enhance the environment, including the historic environment, and retain the local distinctiveness of the area.

To protect, manage and enhance Mid Suffolk's biodiversity and geodiversity based on a network of:

- Designated Sites (international, national, regional and local)*
- Biodiversity Action Plan Species and Habitats, geodiversity interests within the wider environment*
- Wildlife Corridors and Ecological Networks*

and where appropriate increase opportunities for access and appreciation of biodiversity and geodiversity conservation for all sections of the community.

Emphasis will be given to the creation new habitats particularly along the Gipping, Upper Waveney and Deben River valleys in connection with flood management schemes and to contribute towards green tourism opportunities.

Landscape: *The Council will protect and conserve landscape qualities taking into account the natural environment and the historical dimension of the landscape as a whole rather than concentrating solely on selected areas, protecting the District's most important components and encourage development that is consistent with conserving its overall character.*

Design: *Development will be of a high-quality design that respects the local distinctiveness and the built heritage of Mid Suffolk, enhancing the character and appearance of the district. It should create visual interest within the street scene and where appropriate encourage active uses at ground floor level, creating uses of public space which encourage people to walk and cycle.*

Historic Environment: *The Council will introduce policies in the other DPDs of the Local Development Framework to protect, conserve and where possible enhance the natural and built historic environment including the residual archaeological remains. These policies will seek to integrate conservation policies with other planning policies affecting the historic environment.*



2.0 Methodology

2.1 Baseline Data Collection

2.1.1 Desk Study

An internet-based desk study was also undertaken by SLR in January 2023, and repeated in July 2023, whereby the Multi-Agency Geographic Information for the Countryside (Magic) website (<http://magic.gov.uk>) was searched for statutory designated sites (such as Sites of Special Scientific Interest (SSSI)) and European Protected Species (EPS) records and Licences granted within 2km of the site.

An ecological assessment was produced in June 2021 by Hopkins Ecology for the adjacent Cambridge Power 100MW battery site, now consented, and as such the supporting ecological information is in the public domain. The above 2021 report and the data search on which it is based provides contextual information on sites and species, which has been summarised in this PEA report at a general level only, given that some time has lapsed, that different (albeit closely) located sites are involved and so as to avoid any conflict with existing end user data agreements.

Google Earth¹ and Ordnance survey mapping² were also used to search for water bodies within 500m of the site.

2.1.2 Field Survey(s)

A Preliminary Ecological Appraisal comprising of a UK Habitat Classification (UKHab) survey and protected species walkover was undertaken on 17th November 2021.

The area subject to survey consisted of the Site and the adjacent habitats to the north, south, east and west, hereafter, referred to as the 'survey area'.

The survey area was assessed for habitats and features with potential to support protected or notable species, together with any field signs of such species including badgers, bats, great crested newts (GCN) and breeding birds.

Trees and structures within the survey area were assessed for their potential to support roosting via an external assessment at ground-level, based on criteria within the third edition of the Bat Conservation Trust's Good Practice Guidelines³.

2.1.3 Limitations

Desk Study

Desk study data is unlikely to be exhaustive, especially in respect of species, and is intended mainly to set a context for the study. It is therefore possible that important habitats or protected species not identified during the data search do in fact occur within the vicinity of the Site. The interpretation of maps and aerial photography has been conducted in good faith, using recent imagery, but it has not

¹ Google Earth – last accessed on 26th January 2023

² OS Maps – last accessed on 26th January 2023 (<https://osmaps.ordnancesurvey.co.uk>)

³ Collins, J. (2016) *Bat Surveys for Professional Ecologists. Good Practice Guidelines. Third Edition*. Bat Conservation Trust, London.



been possible to verify the accuracy of any statements relating to land use and habitat context outside of the field study area.

Field Survey(s)

The UKHab Survey was undertaken in early November 2021, which is considered a sub-optimal time of year for conducting UKHab surveys, as the growing season of some plant species has finished. However, the survey results are deemed representative of the habitats present within the study area and during the survey it was possible to identify the dominant and characteristic species of flora within each habitat. Thus, the sub-optimal timing of the survey is not considered to affect the validity of the conclusions drawn in this report.

Whilst it is felt unlikely that significant factors have been overlooked, due to the nature of ecological surveys it is possible that species that use the site may not have been recorded by virtue of their seasonality, cryptic behaviour, habit, or random chance. It should be noted that lack of evidence of any one protected species during survey visits does not necessarily preclude its presence at the site either at this current time or in the future. It is considered that the survey was suitable for conducting protected species risk assessments based on habitat type, collected data and local knowledge.

2.2 Evaluation Approach

The ecological evaluation approach used in this report is based on Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland (“CIEEM guidelines”) (CIEEM, 2018).

2.2.1 Important Ecological Features

Ecological features can be important for a variety of reasons and the rationale used to identify them is explained in the text. Importance may relate, for example, to the quality or extent of the site or habitats therein; habitat and/ or species rarity; the extent to which such habitats and/or species are threatened throughout their range, or to their rate of decline.

Determining Importance

The importance of an ecological feature should be considered within a defined geographical context. The following frame of reference has been used in this case, relying on known/ published accounts of distribution and rarity where available, and professional experience:

- International
- National (i.e. UK/ England, etc.)
- Regional (i.e. Suffolk)
- County (i.e. Babergh and Mid-Suffolk)
- Local (i.e. within circa 2km)

The above frame of reference is applied to the ecological features identified during the desk study and surveys to inform this report.

The value of habitats has been measured against published selection criteria where available. Examples of relevant criteria include: descriptions of habitats listed on Annex 1 of the Habitats Directive; descriptions of habitats of principal importance for biodiversity under Section 41 of Natural Environment and Rural Communities (NERC) Act 2006; Local Wildlife Site Selection Criteria; and Habitat Action Plans (HAPs) contained within Local Biodiversity Action Plans.

In assigning a level of value to a species, it is necessary to consider its distribution and status, including a consideration of trends based on available historical records. Reference has therefore been made to published lists and criteria where available. Examples of relevant lists and criteria include: species of European conservation importance (as listed on Annexes II, IV and V of the



Habitats Directive or Annex 1 of the Birds Directive); species of principal importance for biodiversity under Section 41 of the NERC Act 2006 and Birds of Conservation Concern¹.

For the purposes of this report, ecological features of Local importance or greater and/or subject to legal protection have been subject to detailed assessment. Effects on other ecological features are considered unlikely to be significant in legal or policy terms.

3.0 Results

The results of the desk and field survey are reported below and describe the baseline conditions at the Site and within the surrounding area.

3.1 Designated Sites

3.1.1 Statutory Sites

The data search using MAGIC found that the Site is not within an area designated as a statutory designated ecological site and that none are present within 2km of the site boundary.

Statutory ecological sites are not considered further in this assessment.

3.1.2 Non-statutory Sites

Fourteen non-statutory sites are present within 2km of the Site boundary, as summarised in the Hopkins 2021 report.

None of the sites were considered to have the potential to be adversely affected by the proposed development due to their distant locations.

Non-statutory ecological sites are not considered further in this assessment.

3.1.3 Ancient Woodland

The data search using MAGIC returned five results of ancient woodland within 2km of the Site boundary. The results are summarised below in Table 3-1.

Table 3-1: Ancient Woodland Within 2km of the Site Boundary

Site name:	Distance/direction from site (approximate)
Bullen Wood	15m south of development site boundary (partially within survey area due to a buffer being included)
Burstall Long Wood	0.8 km south-east of development site boundary
Flowton Hall Grove	1.8 km west of development site boundary
Millers Wood	0.5 km north-east of development site boundary
Round Wood	0.45 km south-east of development site boundary

All areas of ancient woodland are of sufficient distance away from the development site and are not considered to have the potential to be affected by the construction or operation of the development.

Natural England Standing Advice states that ancient woodland should be buffered by a stand-off of at least 15m between the development and the woodland boundary. Therefore, it is considered that the new detention basin is of sufficient distance from Bullen Wood and will not impact the woodland.






3.2 Habitats

The results of the UKHab survey are illustrated in map form in Drawing 1 and are described below. For the purposes of this report, the habitats present within the site have been mapped using the fine scale minimum mapping unit MMU (25m², 5m length), in accordance with the UK Habitat Classification User Manual⁴.



⁴ The UK Habitat Classification Working Group (September 2020) *The UK Habitat Classification User Manual Version 1.1.*




Table 3-2: Habitats on Site and within Survey Area

Classification and Description	Photograph (if available)
On-site Habitats	
<p>Cereal crops - c1c</p> <p>Secondary codes: 115 – track</p> <p>This arable field contains a winter cereal crop, surrounded by a bare ground track. The proposed development Site consists entirely of this habitat.</p>	
Survey Area Habitats	
<p>Modified grassland- g4</p> <p>An area of modified grassland circumvents the arable field, and separates the field from Bullen Wood. This area of grassland included the species, scentless mayweed <i>Tripleurospermum inodorum</i>, creeping buttercup (<i>Ranunculus repens</i>), curled dock (<i>Rumex crispus</i>), greater plantain (<i>Plantago major</i>), perennial rye-grass (<i>Lolium perenne</i>), prickly sowthistle (<i>Sonchus asper</i>) and red clover (<i>Trifolium pratense</i>).</p>	
<p>Priority hedgerows - h2a</p> <p>Western Hedgerow</p> <p>Secondary codes: 10 – scattered scrub</p> <p>An unmanaged species-rich hedgerow that runs for approximately 150m along the western boundary between the site and Bramford Substation. The species composition is heavily dominated by brambles within the patches of scattered scrub. The hedgerow itself is comprised of Blackthorn (<i>Prunus spinosa</i>), English elm (<i>Ulmus procera</i>), field maple (<i>Acer campestre</i>), sessile oak (<i>Quercus petraea</i>) and hazel (<i>Corylus avellana</i>). The hedge base flora includes species such as cleavers (<i>Galium aparine</i>), common nettle (<i>Urtica dioica</i>), cow parsley (<i>Anthriscus sylvestris</i>), cut-leaved crane’s-bill (<i>Geranium dissectum</i>), dog-rose (<i>Rosa canina</i>), greater burdock (<i>Arctium lappa</i>), hogweed (<i>Heracleum</i></p>	



Classification and Description	Photograph (if available)
<p><i>spondylium</i>), selfheal (<i>Prunella vulgaris</i>), and traveller's joy (<i>Clematis vitalba</i>).</p> <p>Northern Hedgerow</p> <p>A species-rich intact hedgerow with trees present along the northern boundary of the survey area. Species assemblage within the hedgerow is comprised of ash (<i>Fraxinus excelsior</i>), blackthorn, bramble (<i>Rubus fruticosus agg.</i>), common spindle (<i>Euonymus europaeus</i>), dog-rose, field maple, hazel, hawthorn (<i>Crataegus monogyna</i>) and pedunculate oak (<i>Quercus robur</i>).</p> <p>The hedgerow is slightly disconnected and measures an estimated 5m tall with trees reaching 25m tall.</p> <p>Eastern Hedgerow</p> <p>Secondary codes: 190 – Hedgerow with trees</p> <p>This stretch of unmanaged and disconnected hedgerow runs for approximately 115m down the eastern boarder of the site. The hedgerow is comprised of common spindle, dogwood (<i>Cornus sanguinea</i>), elm, field maple, hawthorn, pedunculate oak and wild privet (<i>Ligustrum vulgare</i>). The ground flora assemblage includes cleavers, cow parsley, creeping thistle (<i>Cirsium arvense</i>), curled dock (<i>Rumex crispus</i>), ground-ivy (<i>Glechoma hederacea</i>) and hogweed.</p> <p>The habitat was estimated to be 3m wide and 7m tall with the spaced-out trees reaching greater heights of approximately 16m. The hedgerow ditch is bordered both sides by a 1m band of grass verge.</p>	 



Classification and Description	Photograph (if available)
<p>Other woodland; broadleaved – w1g</p> <p>To the south of the survey area is an ancient semi-natural broadleaved woodland that runs for an estimated 130m across the entire southern border of the survey area, and is part of a larger section of woodland (Bullen Wood)</p> <p>Both the canopy and understory are well connected with numerous mammal paths running through the ground vegetation. The canopy species include field maple, hazel, sissile oak and wych elm (<i>Ulmus glabra</i>). The ground flora is comprised of bluebell (<i>Hyacinthoides non-scripta</i>), Bugle (<i>Ajuga reptans</i>), common spotted-orchid (<i>Dactylorhiza fuchsia</i>), cowslip (<i>Primula veris</i>), dogs mercury (<i>Mercurialis perennis</i>), herb Robert (<i>Geranium robertianum</i>), Lords-and-Ladies (<i>Arum maculatum</i>) and wood speedwell (<i>Veronica montana</i>).</p>	

A section of arable field will be lost to facilitate the development. This habitat has little biodiversity and ecological value and is unlikely to be of high value for any protected species. All other habitats listed above are to be retained. Therefore, Site habitats are not considered further in this assessment.

3.3 Species

3.3.1 Plants

The field survey also did not find any notable plant species in the Site or in the wider survey area. The remaining parts of Bullen Wood, which is ancient, was not surveyed and a locally notable flora may be present. However, the ancient woodland is being retained and will be unaffected by the development. Notable plant species are therefore not considered further in this report.

Invasive/non-native plant species

No non-native plant species were noted during the habitat survey. Invasive non-native plant species are therefore considered unlikely to be present and are not considered further in this report.

3.3.2 Invertebrates

During the field survey, no habitats suitable to support notable species or assemblages of invertebrates such as honeysuckle (*Lonicera periclymenyum*), lots of elm trees (*Ulmus*), extensive open grassland and dead tree roots were identified. No other notable invertebrate species were noted during the field survey.



The Site itself offers no suitable habitat to support a significant invertebrate population. The surrounding habitats may support a wider assemblage of invertebrates; however, these habitats are being retained. Therefore, invertebrates are not considered further in this assessment.

3.3.3 Amphibians

No ponds (i.e. potential amphibian breeding sites) are present within the Site or within 250m of the Site boundary.

No amphibian species were found during the field survey in November 2021. Some of the surrounding habitats, such as the hedgerows, grassland and the woodland edges, have low levels of potential to support commuting or hibernating amphibians. However, it is unlikely they will support a significant population. The habitat within the development site itself are considered unsuitable to support any amphibian species due to active use for farming.

Therefore, amphibians have not been considered further in this assessment.

Great Crested Newts

Aerial images⁵ and maps⁶ show that there are two water bodies (which could potentially offer breeding opportunity for GCN) within 500m of the Site. One is located approximately 480m to the north-east of the site, and the other is located approximately 135m north. As such, without further survey works, and assuming the presence of GCN, the risks that the installation of the detention basin pose to GCN classifies as **Green: Offence Highly Unlikely** on Natural England’s Rapid Risk Assessment Calculator⁷ (see figure 1 below).

Figure 1: Rapid Risk Assessment Calculator for the Site

Component	Likely effect (select one for each component; select the most harmful option if more than one is likely; lists are in order of harm, top to bottom)	Notional offence probability score
Great crested newt breeding pond(s)	No effect	0
Land within 100m of any breeding pond(s)	No effect	0
Land 100-250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.01
Land >250m from any breeding pond(s)	0.01 - 0.1 ha lost or damaged	0.001
Individual great crested newts	No effect	0
	Maximum:	0.01
Rapid risk assessment result:	GREEN: OFFENCE HIGHLY UNLIKELY	

The MAGIC data search returned five GCN licences granted within 2km of the development site boundary. These licences have all been granted at the same location between the years 2016-2023. The details of these licences are shown below in Table 3-3.

⁵ Google Earth – last accessed on 26th January 2023

⁶ OS Maps – last accessed on 26th January 2023 (<https://osmaps.ordnancesurvey.co.uk>)

⁷ Natural England (2020) Method Statement to support application for licence under Regulation 53(2)e of The Conservation of Habitat and Species Regulations 2017 (as amended) in respect of great crested newts *Triturus cristatus*. Available at: [gcn-method-statement.xlsm](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/431212/gcn-method-statement.xlsm) (live.com)



Table 3-3: European Protected Species Licences Granted for GCN within 2km

Reference	Species	Licence start/end date	Impact of licence	Distance/direction from the site
2016-24231-ESP-MIT	Great crested newt	26/07/2016 – 30/06/2020	Damage and/or destruction of a resting place	0.6km directly west of the site
2016-24231-ESP-MIT-1	Great crested newt	12/10/2017 – 30/06/2020	Damage and/or destruction of a resting place	0.6km directly west of the site
2016-24231-ESP-MIT-3	Great crested newt	01/03/2019 – 30/06/2021	Damage and/or destruction of a resting place	0.6km directly west of the site
2016-24231-ESP-MIT-4	Great crested newt	17/12/2019 – 30/06/2022	Damage and/or destruction of a resting place	0.6km directly west of the site
2016-24231-ESP-MIT-5	Great crested newt	13/08/2020 – 30/06/2023	Damage and/or destruction of a resting place	0.6km directly west of the site

Whilst the records listed in the Table above indicate GCN presence in the wider landscape, they are located over 500m away from the Site. GCN are unlikely to commute more than a few hundred metres from their breeding ponds⁸ and are very unlikely to move more than 500m.

Some of the surrounding habitats may offer suitable commuting or hibernating habitat, such as the hedgerows, grassland and woodland edges. However, these habitats are being retained and the development site itself offers no suitable terrestrial habitat for GCN.

No GCN or suitable hibernacula were noted during the field survey.

GCN are therefore considered to be absent from the development site and are therefore not considered further in this assessment.

3.3.4 Reptiles

The arable habitat within the development site itself is considered unsuitable for reptiles.

The hedgerows, grassland and woodland edges in the wider survey area may have the potential to support hibernating reptiles, however these habitats are being retained. The grassland habitats in the wider survey area are too small, fragmented and heavily managed to support a population of reptiles.

No reptiles or suitable hibernacula were noted during the field survey. Therefore, reptiles have not been considered further in this assessment.

3.3.5 Nesting Birds

The field survey also did not find any notable bird species within the development site or the wider survey area.

⁸ English Nature (2001)- *Great crested newt mitigation guidelines*



The hedgerows, mature trees and woodland areas in the wider survey area have the potential to support nesting birds, however these habitats are being retained. It is unlikely that any nesting birds in these habitats will be disturbed as they are at least 5m from the development site boundary.

The Site itself offers no suitable habitat for most nesting birds. However, depending on when agricultural management activities cease and construction starts within the Site, the possibility exists that rough or long grassland may develop if the Site is left unmanaged. In this event, ground nesting bird species, such as skylark (*Alauda arvensis*) and pheasants (*Phasianus colchicus*) may use the development site during the breeding season.

Therefore, ground-nesting birds have been considered further in this assessment.




3.3.6 Mammals

Bats

The hedgerows and woodland areas in the wider survey area offer commuting and foraging opportunities for bats. During the field survey it was noted that mature trees in the western hedgerow and in Bullen Wood may offer suitable roosting potential for bats (all of which are being retained). Details of these mature trees can be found in Table 3-4 below.



Table 3-4: Trees with Bat Roosting Potential

Tree Reference and Location	Bat Roost Potential and Description	Photograph
<p>T1 TM10120 45989</p>	<p>Moderate- A large dead mature tree located an estimated 40m north of the southern woodland boundary, in the western hedgerow.</p> <p>The tree has several features including multiple sections of hanging bark, and small knot holes on the northern aspect, approximately 5m from ground level. These features are only suitable for day roosts or transitional roosts.</p>	
<p>T2 TM 10144 45959</p>	<p>High- A Large dead mature tree located along the woodland edge.</p> <p>The tree has multiple features such as cracks and fissures around the circumference of the trunk, with some of the features measuring 2-3 meters in length up the tree. There are also numerous knot and woodpecker holes. This tree is suitable for day roosts and transitional roosts.</p>	
<p>T3 TM 10159 45963</p>	<p>High- A large, mature tree located along the woodland edge.</p> <p>The features on the tree comprise of large areas of hanging bark, running from the bottom of the trunk up to canopy height, various cracks and fissures along the trunk, and woodpecker holes located approximately 5-6m from ground level.</p>	



There were no suitable roosting habitat/opportunities noted in the Site itself and the habitat that does offer commuting and foraging opportunities for bats will be retained. There will be no artificial illumination associated with the proposed development. Therefore, bats have not been considered further in this assessment.

Otter and Water Vole

A ditch runs along the southern boundary of the field, under the canopy of Bullen Wood. The bank sides of this ditch were deemed too shallow for water vole burrowing, there was a lack of food sources, and at the time of survey the ditch was dry. No field signs for either species were found either. Therefore, otter and water vole have not been considered further in this assessment.

Other Mammals

Habitats such as the hedgerows and woodland area are suitable for hedgehog use, however these habitats are being retained and therefore hedgehogs are unlikely to be impacted by the development. The retained habitats will continue to provide good connectivity for all mammal species utilising them. No other mammal species have been considered further in this assessment.

⁹ Natural England (2009)- *Badgers and Development, a Guide to Best Practice and Licencing*



4.0 Ecological Constraints and Opportunities

4.1 Recommendations for Further Surveys

Nesting Birds

Should the commencement of works occur during bird nesting season (March-August inclusive), the area of works should be subject to inspection from a suitably qualified ecologist to determine the presence or absence of ground nesting birds in the working area. Should any nests be found, a buffer zone around the nests should be established, where no works occur until any eggs have hatched and subsequently fledged. The size of the buffer zone will be dependent on the species that created the nest and will be determined by the ecologist undertaking the inspection.

4.2 Potential Opportunities for Biodiversity Enhancements

No biodiversity enhancements are recommended at this time as the red line boundary has limited space to include enhancement features and the surrounding land is under third party ownership.



Drawing 1

UKHab Plan



08525_000115_0002.0 UK Habitat Map

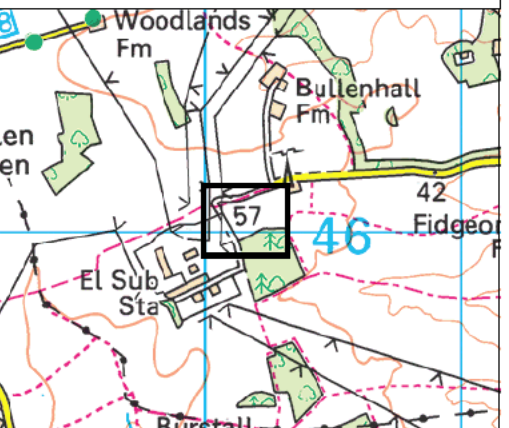
LEGEND

- Drainage Basin Planning Application Boundary
- Survey Area
- Trees With Bat Roosting Potential

UK Habitat Classification

- h2a - Hedgerow (Priority Habitat)
- r1 - Standing Open Water and Canals
- c1c - Cereal Crops
- g4 - Modified Grassland
- w1g - Other Woodland, Broadleaved

- Secondary Habitats**
- 10 - Scattered Scrub
 - 73 - Bare ground
 - 115 - Track
 - 190 - Hedgerow with Trees
 - 191 - Ditch



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BRAMFORD BATTERY DRAINAGE SCHEME

ECOLOGY

UKHAB CLASSIFICATION PLAN

FIGURE 1

Scale 1:1,000 @ A3	Date JULY 2023
--------------------	----------------



Appendix A

Relevant Legislation and Planning Policy

Relevant Legislation and Planning Policy

Legislation

A summary of legislation relevant to (onshore) biodiversity in England and Wales is provided below. Note that the summary provided here is intended for general guidance only and the original legislation should be consulted for definitive information.

Environment Act (2021)

The Environment Act has wide ranging provisions including those around:

- Environmental governance;
- Environmental regulation;
- Waste and resource efficiency;
- Air quality and environmental recall;
- Water;
- Nature and biodiversity;
- Conservation covenants.

Of particular relevance is Part 6 of the Act which introduces “biodiversity gain in planning” and will apply in England to planning applications under the Town & Countryside Act and the Planning Act. These changes will be enacted through subsequent secondary legislation or regulations. This part of the Act also changes the responsibilities that Government or public bodies have by strengthening the existing NERC Act biodiversity duty. Public authorities are now required to seek to conserve and enhance biodiversity in the exercise of their functions.

Conservation of Habitats and Species Regulations 2017 (as amended)

The Conservation of Habitats and Species Regulations 2017 (as amended) (the Habitats Regulations) consolidate the Conservation of Habitats and Species Regulations 2010 with subsequent amendments. The Regulations transpose Council Directive 92/43/EEC, on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive), into national law. Under the Habitats Regulations it is an offence to deliberately capture, kill or disturb¹ wild animals listed under Schedule 2 of the Regulations. It is also an offence to damage or destroy a breeding site or resting place of such an animal (even if the animal is not present at the time).

The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

Part 3 of the regulations provide for the protection of areas of habitats or species where maintenance of the status of water is an important factor. Under the regulations additional consideration may need to be given to sites in the form of a Water Framework Directive (WFD) assessment where a project lies in proximity to a water body or to linked water bodies which could be affected. This includes consideration of whether water bodies are WFD receptors in particular those of high status or have high status morphology.

¹ Disturbance, as defined by the Conservation of Habitats and Species Regulations 2010, includes in particular any action which impairs the ability of animals to survive, breed, rear their young, hibernate or migrate (where relevant); or which affects significantly the local distribution or abundance of the species.

Natural Environment & Rural Communities (NERC) Act 2006

Section 40 of the NERC Act 2006 places a duty on public authorities to have regard to the purpose of conserving biodiversity in the exercise of their functions. Public authorities include government departments, local authorities and statutory undertakers.

Section 41 of the Act (Section 42 in Wales) requires the publication of a list of habitats and species which are of principal importance for the purpose of conserving biodiversity. The Section 41 list is used to guide authorities in implementing their duty to have regard to the conservation of biodiversity.

Note that Sections 40 and 42 were superseded in Wales by the Environment (Wales) Act 2016 (see below).

Wildlife & Countryside Act 1981

The Wildlife and Countryside Act 1981, as amended by the Countryside and Rights of Way (CROW) Act 2000 and the Natural Environment and Rural Communities (NERC) Act 2006, consolidates and amends existing national legislation to implement the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention) and Council Directive 79/409/EEC on the Conservation of Wild Birds (Birds Directive), making it an offence to:

- Intentionally kill, injure or take any wild bird or their eggs or nests (with certain exceptions) and disturb any bird species listed under Schedule 1 to the Act, or its dependent young while it is nesting;
- Intentionally kill, injure or take any wild animal listed under Schedule 5 to the Act;
- intentionally or recklessly damage, destroy or obstruct any place used for shelter or protection by any wild animal listed under Schedule 5 to the Act;
- intentionally or recklessly disturb certain Schedule 5 animal species while they occupy a place used for shelter or protection;
- Pick or uproot any wild plant listed under Schedule 8 of the Act; or
- Plant or cause to grow in the wild any plant species listed under Schedule 9 of the Act.

Planning Policy

A summary of national planning policy relevant to (onshore) biodiversity in England and Wales is provided below. Note that the summary provided here is intended for general guidance only and the original policy documents should be consulted for definitive information. For local planning policy relevant to biodiversity the relevant local plans should be consulted.

National Planning Policy (England)

The National Planning Policy Framework (NPPF)² sets out guidance for local planning authorities and decision-makers in how to apply planning policies when drawing up plans and making decisions about planning applications. Along with Government Circular 06/05², the broad policy objectives in relation to the protection of biodiversity and geological conservation in England through the planning system are set out. Specific policies relating to habitats and biodiversity are set out in paragraphs 174 and 179-182 of the NPPF.

² Ministry of Housing, Communities & Local Government (2021). [National Planning Policy Framework](#).

Paragraph 174 states that:

“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 f) 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”.*

Paragraph 179 states that:

“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; wildlife corridors and stepping stones that connect them; and areas identified by national and local partnerships for habitat management, enhancement, restoration or creation; 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.”*

Paragraph 180 of the NPPF states that:

“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.”*

Paragraphs 181-182 relate to European sites (referred to as habitats sites) and state:

“The following should be given the same protection as habitats sites:

- a) potential Special Protection Areas and possible Special Areas of Conservation;*
- b) listed or proposed Ramsar sites; and*

c) sites identified, or required, as compensatory measures for adverse effects on habitats sites, potential Special Protection Areas, possible Special Areas of Conservation, and listed or proposed Ramsar sites.

The presumption in favour of sustainable development does not apply where the plan or project is likely to have a significant effect on a habitats site (either alone or in combination with other plans or projects), unless an appropriate assessment has concluded that the plan or project will not adversely affect the integrity of the habitats site.”



Appendix B

Ecological Appraisal – WYG (Tetra Tech



Bullen Farm, Bramford, Ipswich

Ecological Appraisal



Pivot Power May 2019

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Document Control

Project: Bullen Farm, Bramford, Ipswich
 Client: Pivot Power
 Job Number: A109352
 File Origin: <\\lds-dc-vm-002\Group Ecology\Projects\Projects A109000\A109352 Bramford, Ipswich\REPORTS\EA Report>

Issue 1	May 2019	FINAL
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Rev:	Date:	Updated by:	Verified by:	Description of changes:

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FIGURES

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Figure 2 – Phase 1 Habitat Plan

Appendix A – Report Conditions

Appendix B – Target Notes

Appendix C – Planning Policy and Wildlife Legislation



Executive Summary

Contents	Summary
Site Location	<p>The survey area is shown on Figure 1 (blue line) and is located to the northwest of the Bramford 400KV Substation, Bullen Lane, Bramford, Ipswich, IP8 4JL.</p> <p>The application boundary is referred to as the 'Site' in this report and is centred on National Grid Reference: TM 10156 46045 (red-lined on Figure 1). The Site is located to the south of Bullen Lane, adjacent to a parcel of broadleaved woodland to its south and is surrounded by agricultural fields to its east and north.</p>
Proposals	<p>The proposals comprise the construction and operation of an electricity storage facility within the application Site.</p>
Existing Site Information	<p>There are no known ecological reports associated with the Site. Aerial photography showed that the Site supported grassland, scrub and woodland habitats with hedgerows surrounding the Site.</p>
Scope of this Survey(s)	<p>To undertake an EA of the Site, on behalf of Pivot Power in support of its application for full planning permission for the construction and operation of a 49.9MW battery storage facility on land adjacent to the existing Bramford 400kV transmission grid substation West of Ipswich.</p> <p>The scope of this survey was to record broad habitat types in accordance with the Joint Nature Conservation Committee (JNCC) Phase 1 habitat handbook. The scope of the survey also included a search for evidence of notable and protected species, and to record the potential for habitats recorded to support notable and protected species. The information gathered during the survey was supported by information from the Local Environmental Records Centre (LERC) and Department for the Environmental, Food and Rural Affairs (DEFRA), to contextualise the results.</p>
Results	<p>The Site predominately comprises arable land with small areas of bare ground and improved grassland.</p> <p>There is some potential for the Site to support nesting birds, reptiles, hedgehog and brown hare. There is potential for amphibians, invertebrates, bats and hazel dormice within the survey area.</p>
Recommendations	<p>No further surveys are recommended. This is due to the very small area of habitat with the potential to support reptiles and nesting birds within the site. However, it is recommended that precautionary measures of work are in place to protect them from harm during the construction phase of works. This should be set out in a Protected Species Compliance Report. This document will provide details regarding mitigation methods such as supervision of works and phased cutting during vegetation removal..</p> <p>A CEMP should be produced which includes measures to prevent runoff and fugitive dust from adversely affecting Bullen Wood CWS to the south.</p>



1.0 Project Details

The details for the project are provided in Table 1, the conditions relevant to this report are provided in Appendix A.

Table 1: Project details

Project Details	
Site Name:	Bullen Farm, Bramford, Ipswich
Central Grid Reference:	TM 10156 46045
Site Area:	Survey area: approximately 1.9 ha Site: approximately 0.66 ha
Brief Site Description:	The Site supports hedgerows, arable, grassland, bare ground, a small portion of ancient woodland and grass verges.
Brief Project Description	The proposals comprise the construction and operation of an electricity battery storage facility.

The purpose of this report is to establish whether there are any ecological constraints to the proposed development, and to make recommendations for any further surveys or avoidance, mitigation, compensation and/or enhancement measures as necessary.

Note that scientific names are provided at the first mention of each species and common names (where appropriate) are then used throughout the rest of the report for ease of reading.



2.0 Methodology

2.1 Desk Study

2.1.1 Previous Reports

There are no known ecological reports available for the Site.

2.1.2 Local Ecological Records Centre

Information was requested from the Suffolk Biodiversity Information Centre (SBIC) for information on any nature conservation designations and protected or notable species records within 2 km of the Site.

The data search covers:

- Non-statutory designated sites for nature conservation, such as LWS;
- Legally protected species, such as great crested newts, bats ;
- Notable habitats and species, such as those listed as Habitats or Species of Principal Importance; and
- Priority habitats or species within the Suffolk LBAP.

The data search did not cover:

- Tree Preservation Orders (TPOs); or
- Conservation Areas designated for their special architectural and historic interest.

2.1.3 Online Resources

A search for relevant information was also made on the following websites:

- MAGIC www.magic.gov.uk - DEFRA's interactive, web-based database for statutory designations and information on any EPSL applications that have been granted in the local area since 2015.
- NBN Atlas <https://nbnatlas.org/> - for records of protected and notable species.

The study area was extended to include any Natura 2000 sites for which the Site falls within the zone of influence (which varies between sites). Note that the use of some NBN Atlas data is limited (e.g. commercial use of data provided under a CC BY-NC licence is not possible) therefore we may not be able to report full details of those records in such cases.

2.2 Field Survey

The following methodologies were used to identify the ecological receptors present on or near the Site, which are relevant to the proposed development. The details for the survey are provided in Table 2.



Table 2: Survey details

Survey Details	
Survey Type:	Extended Phase 1 habitat survey
Surveyor (including qualifications):	Georgia Alfreds BSc MSc ACIEEM Rob Sinclair BSc
Survey Date:	13 th May 2019
Weather:	13°C, dry, light breeze, no cloud

2.2.1 Habitats

The vegetation and broad habitat types within the Site were noted during the survey in accordance with the categories specified for a Phase 1 Vegetation and Habitat Survey (JNCC, 2010). Dominant plant species were recorded for each habitat present using nomenclature according to Stace (2019). The Site was also appraised for its suitability to support notable flora, with regard to the *CIEEM Guidelines for Preliminary Ecological Appraisal* (CIEEM, 2017). Target Notes were used to identify the location of notable habitat features or species recorded during the survey. These are provided in Appendix B.

2.2.2 Protected & Notable Species

The following guidance was used for establishing the potential for habitats on sites to support protected species:

- Great crested newts and Reptiles – *Herpetofauna Workers' Manual* (Gent and Gibson, 2003);
- Badgers – *Surveying badgers* (Harris and Jefferies, 1989);
- Bats – *Bat Conservation Trust Good Practice Guidelines* (Collins, 2016);
- Birds – The assessment focussed on records and evidence of protected and notable birds that are listed on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) (The National Archives, 2018b) and/or are Red or Amber Birds of Conservation Concern (Eaton *et al.*, 2015);
- Dormice – *Dormouse Conservation Handbook* (Bright, Morris and Mitchell-Jones, 2006);
- Otter – *Monitoring the Otter* (Chanin, 2003); and
- Water vole – *Water Vole Conservation Handbook* (Strachan, Moorhouse and Gelling, 2016).

2.2.3 Invasive Species

The Site was searched for evidence of invasive plant species, such as Japanese knotweed *Fallopia japonica*, Indian (Himalayan) balsam *Impatiens glandulifera*, giant hogweed *Heracleum mantegazzianum*, wall cotoneaster *Cotoneaster horizontalis* and rhododendron *Rhododendron ponticum* × *Rhododendron maximum* (see legislation.gov.uk for full list (The National Archives, 2018a)).



2.3 Limitations

To determine presence or likely absence of protected species usually requires multiple visits at suitable times of the year. As a result, this survey focuses on assessing the potential of the Site to support species of note, which are considered to be of principal importance for the conservation of biodiversity with reference to those given protection under UK or European wildlife legislation. This report cannot therefore be considered a comprehensive assessment of the ecological interest of the Site. However, it does provide an assessment of the ecological interest present on the day the Site was visited and highlights areas where further survey work may be recommended.

The details of this report will remain valid for a period of **two years** from the date of the survey, after which the validity of this assessment should be reviewed to determine whether further updates are necessary. Note that the recommendations within this report should be reviewed (and reassessed if necessary) should there be any changes to the red line boundary or development proposals which this report was based on.



3.0 Baseline Conditions

3.1 Designated Sites

The data search did not return any designated sites of ecological importance within 2km of the Site. However, seven County Wildlife Sites were identified within 2km, which are detailed in the table below.

Table 3: Designated sites for nature conservation with 2km of the boundary of the Site

Site Name and Designation	Distance and Direction From the Site	Summary of Designation Criteria
Bullen Wood CWS 4.88 ha	15m south of the Site	Bullen Wood is listed in English Nature's Ancient Woodland Inventory. The construction of an electricity sub-station on the western side has resulted in the clearance of part of Bullen Wood. The remaining area of woodland consists of hazel, ash and field maple coppice with numerous mature oak standards. Small areas dominated by aspen and wild cherry are also present. Hazel coppice together with patches of bramble and occasional hawthorn, holly, dogwood, elder and blackthorn comprise the shrub layer. Bullen Wood supports a fair diversity of plant species; a total of fifty one was recorded on one visit to the wood. Dog's mercury and bluebell are in the ground layer. Twayblade and early-purple orchids, spurge laurel, primrose and moschatel are amongst the less common woodland plants which are also on the species list. Although some areas of diseased elm particularly in the north eastern part of the wood have been cleared, the dead timber which remains provides valuable habitat for hole-nesting birds and dead wood invertebrates. Numerous holes in the dead trees are clear evidence of the importance of dead standing timber for woodpeckers.
Miller's Wood CWS 7.97 ha	0.4km east of the Site	This long, sinuous shaped woodland is one of several ancient woods situated in the parish of Bramford and listed in English Nature's Inventory of Ancient Woodland. The entire wood is enclosed by a woodbank, parts of which are probably medieval in origin.
Round Wood and Elms Grove CWS 4.32 ha	0.5km south of the Site	Round Wood is one of a number of ancient woodlands in the parish of Bramford which are listed in English Nature's Ancient Woodland Inventory.
Fore and Bushey Groves CWS 4.63 ha	0.6km north-west of the Site	It is considered that Fore and Bushey Groves, which are now two small woods separated by a track and an area of dense scrub, were at one time joined together to form one larger woodland.



Site Name and Designation	Distance and Direction From the Site	Summary of Designation Criteria
Burstal Long Wood CWS 3.82 ha	0.9km south of the Site	Burstal Long Wood is one of a group of ancient woodlands listed on English Nature's Inventory of Ancient Woodland, situated amidst arable fields to the west of Ipswich.
RNR 92 CWS 0.08 ha	1.7km north-west of the Site	Sulphur Clover on the North-West side & Man Orchid on the South-East side. This Site is also a Roadside Nature Reserve.
Flowton Grove CWS 2.16 ha	1.8km north-west of the Site	This small ancient woodland is surrounded by arable fields and is situated to the south of the village of Flowton. It is listed in English Nature's Inventory of Ancient Woodland and a rather overgrown green lane leads to the north-eastern corner of the wood. Flowtonhall Grove is composed almost entirely of oak, field maple and hazel coppice with scattered oak and ash standards throughout. Two glades created by the felling of diseased elm are present in the northern half of the wood.

There are three veteran trees within 2km of the Site, the closest of which is a pedunculate oak located 0.4km north of the Site.

3.2 Habitats

The JNCC Phase 1 habitats recorded within the Site and survey area are shown in Table 4, with a brief description of the location and dominant plant species provided. Figure 2 shows the location of the habitats recorded within the Site and the location of Target Notes (included in Appendix C).

Table 4: Habitats recorded during the survey

JNCC Phase 1 Habitat Name	Habitat Description
Broadleaved semi-natural woodland (Bullen Wood CWS)	<p>No broadleaved semi-natural woodland was located on site. It was present within the survey area in the form of one isolated block immediately to the south of the Site boundary (TN4), encroaching into the field.</p> <p>Vegetation height: ~10m</p> <p>Dominant: Herb Robert (<i>Geranium robertianum</i>); Wych elm (<i>Ulmus glabra</i>); Sessile oak (<i>Quercus petraea</i>); Hazel (<i>Corylus avellana</i>)</p> <p>Abundant: Wall speedwell (<i>Veronica arvensis</i>) Wood speedwell (<i>Veronica montana</i>)</p> <p>Frequent: Bluebell (<i>Hyacinthoides non-scripta</i>); Lords-and-ladies (<i>Arum maculatum</i>)</p>



JNCC Phase 1 Habitat Name	Habitat Description
	<p>Occasional: Himalayan honeysuckle (<i>Leycesteria formosa</i>); Bugle (<i>Ajuga reptans</i>)</p> <p>Rare: Cowslip (<i>Primula veris</i>); Common spotted-orchid (<i>Dactylorhiza fuchsii</i>)</p>
Improved grassland	<p>Improved grassland was present along all boundaries of the survey area forming unmanaged field margins (TN5). Improved grassland was not located within the site, with the exception of a small area around the existing (and proposed) access to the field.</p> <p>Vegetation height: ~1m (6.5m wide)</p> <p>Dominant: Perennial rye-grass (<i>Lolium perenne</i>)</p> <p>Abundant: Greater plantain (<i>Plantago major</i>); Creeping buttercup (<i>Ranunculus repens</i>); Curled dock (<i>Rumex crispus</i>)</p> <p>Frequent: Red Clover (<i>Trifolium pratense</i>)</p> <p>Occasional: Prickly sowthistle (<i>Sonchus asper</i>)</p>
Arable	<p>Arable habitat formed the majority of the Site and survey area (TN7).</p> <p>Vegetation height: ~20cm</p> <p>Dominant: Wheat</p>
Bare ground	<p>Bare ground was present in the Site and survey area in the form of dry muddy earth tracks around the perimeter of the field. They are of negligible ecological value in themselves, offer no suitability for protected species and form a small proportion of the Site.</p>
Dense scrub	<p>No dense scrub was located on site. It was present within the survey area along the north and west boundaries where hedgerows had grown to become linear scrub belts, likely due to a lack of management (TN1,2, 3).</p> <p>Vegetation height: 1-3m</p> <p>Dominant: Nettles, bramble and cleavers.</p> <p>Occasional: Teasel, ground ivy and hogweed.</p> <p>Rare: Field Maple and Sycamore (see below)</p>

3.3 Protected & Notable Species

The results from the desk study and survey relating to protected and notable species are provided in Table 5. This lists what species the Site has the potential to support and what evidence of species was found. Figure 2 shows the location of Target Notes described in the text.



Table 5: Protected or notable species desk study and survey results

Species or Species Group	Summary of Desk Study Results	Summary of Field Survey Results
Invertebrates	Twelve species were returned, comprising ten species listed in accordance with Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, all of which are listed as Suffolk BAP species.	The Site was considered likely to support a common and widespread assemblage of invertebrate species.
Amphibians	Five records of GCN were returned, located 0.4km north-east of the Site from 2012 (although the closest pond to this location is a further 150m to the north east). Two common toads and one common frog were also recorded within 2km of the Site. The MAGIC website provided details of one EPSL for GCN within 2km of the Site. This was located 1.4km west and was granted for damage and the destruction of a resting place (2016-24231-EPS-MIT).	There is one pond located approximately 470m north of the Site. This pond is poorly connected to the survey area but there are no significant barriers to dispersal. Suitable terrestrial habitat for amphibians on site is limited to a small area of improved grassland around the site access. Larger areas of suitable habitat are present within the survey area in the form of dense scrub and woodland.
Reptiles	No records of reptiles were returned.	The grassland within the Site around the field access was considered suitable to support reptile species (grass snake <i>Natrix helvetica</i> , common lizard <i>Zootoca vivipara</i> and slow worm <i>Anguis fragilis</i>). Further habitat including potential basking habitat is present within the survey area in the form of the grassland and woodland interface along the southern boundary and scrub along the north and west boundaries of the survey area. Brash and fallen dead wood within the southern woodland provide potential refuge and hibernation sites.
Bats	There were records of common pipistrelle <i>Pipistrellus pipistrellus</i> , soprano pipistrelle <i>Pipistrellus pygmaeus</i> , noctule <i>Nyctalus noctula</i> , serotine <i>Eptesicus seotinus</i> ,	The woodland edge, scrub and hedgerow habitats within the survey area were considered to have the potential to support commuting bats. The woodland, hedgerows, scrub and



Species or Species Group	Summary of Desk Study Results	Summary of Field Survey Results
	<p>and several bats that were not identified to species level.</p> <p>The MAGIC website provided no details of any EPSL for bats within 2km of the Site.</p>	<p>grassland habitats had the potential to provide resources for foraging bats.</p> <p>No trees are located on site. An assessment of the trees present within the survey area found that some were mature with potential roost features. One mature oak tree within the southern woodland was assessed as having high suitability to support roosting bats.</p> <p>Other trees within the survey area are of a size and age such that features suitable for roosting bats may be present, but none were observed during the survey.</p> <p>The survey area has some connectivity to other areas of suitable habitat in the surrounding landscape. The survey area is assessed as having low suitability for foraging/commuting bats and the Site has negligible suitability.</p>
Hazel dormice	No records of dormice were returned.	The woodland, hedgerows and scrub within the survey area provide suitable habitat to support dormice. No suitable habitat is located on site.
Otter and Water Vole	<p>One record of otter <i>Lutra lutra</i> was returned, located approximately 2km west of the Site, however the NGR provided is of low resolution.</p> <p>There were no records of water vole <i>Arvicola amphibius</i> returned.</p>	There were no waterbodies present on or adjacent to the Site. Therefore the Site was considered to offer negligible potential to support otter or water vole.
Birds	There were records of nine NERC Act species, 16 Suffolk BAP species, and 21 Birds of Conservation	Woodland and scrub within the survey area was considered to be highly suitable for nesting birds. The use of the survey



Species or Species Group	Summary of Desk Study Results	Summary of Field Survey Results
	Concern (BoCC) Red listed species (Eaton et al., 2015).	area by breeding birds, including those afforded additional protection by Schedule 1 of the W&CA is unknown, but is considered likely.
Invertebrates	<p>A speckled wood butterfly <i>Pararge aegeria</i> was seen during the Site visit.</p> <p>Twelve species were returned, comprising ten species listed in accordance with Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006 all of which xxx are Suffolk BAP species (including Stag beetle <i>Lucanus cervus</i>, Wall <i>Lasiommata megera</i>, Small Heath <i>Coenonympha pamphilus</i>, White Admiral <i>Limenitis Camilla</i>, White-letter Hairstreak <i>Satyrrium w-album</i>, White Ermine <i>Spilosoma lubricipeda</i>, Cinnabar <i>Tyria jacobaeae</i>, Mottled Rustic <i>Caradrina Morpheus</i>, Large Nutmeg <i>Apamea anceps</i>, Small Square-spot <i>Diarsia rubi</i>).</p>	The site predominately comprises arable land and is considered to have negligible potential for notable invertebrates. The habitats within the survey area including grassland, scrub and broad-leaved woodland have the potential to support a wide variety of invertebrates including rare / notable species.
Protected or notable species of fungi, bryophyte or plant	There were records of 50 notable plant species. There were 2 records of moss species, <i>Tortula schimperi</i> .	The site predominately comprises managed arable land and is considered to have negligible potential for notable or protected flora. The native bluebell <i>Hyacinthoides non-scripta</i> was recorded during the survey within the woodland south of the Site. No other protected or notable species of fungi, bryophyte or plant were recorded during the survey.
Other species	There were records of hedgehogs <i>Erinaceus europaeus</i> and brown hare <i>Lepus europaeus</i> .	The long grassland and dense scrub areas within the survey area are considered suitable to support brown hares and hedgehogs. The arable habitat within the Site is less suitable but may support brown hare.
Invasive species	No records of invasive species were returned.	No invasive species were recorded during the survey.



4.0 Discussion

A summary of the importance of the habitats recorded on site is provided in Table 6. In line with the *CIEEM Guidelines for Preliminary Ecological Appraisal* (2017), and based on the above baseline information, each ecological feature recorded was given an importance rating based on a geographic scale:

- Either: International (incl. European)/National/Regional/County/Local/Negligible; or
- Unknown (i.e. further surveys/information needed).

Table 6: Importance of ecological features recorded

Feature	Importance	Additional Assessment/Surveys/Mitigation Required with Rationale	Scope of Additional Assessment/Surveys/Mitigation, including Timings
Broadleaved semi-natural woodland	County	No additional surveys required. The broadleaved semi-natural woodland to the south of the Site comprises Bullen Wood CWS, designated as Ancient Woodland. A Construction Environmental Management Plan (CEMP) should be prepared, setting out measures to avoid indirect adverse effects on the habitat.	The CEMP should include measures to control and treat runoff and avoid the release of fugitive dust.
Habitats (overall)	Local	No additional surveys required. The habitats on Site are considered to be of relatively low ecological value and are common and widespread in the wider landscape. No specific mitigation in regard to these habitats will be required.	The access route into the Site would use the existing opening and is not envisaged to require widening. This will minimise loss of hedgerow and is not predicted to be significant or require any compensation.
Invertebrates	Unknown	No additional surveys required. The Site is considered to have negligible suitability for notable invertebrates. No specific	None required.



Feature	Importance	Additional Assessment/Surveys/Mitigation Required with Rationale	Scope of Additional Assessment/Surveys/Mitigation, including Timings
		mitigation in regard to invertebrates will be required.	
Amphibian	Unknown	<p>No additional surveys required.</p> <p>Five records of GCN were returned, located 0.4km north-east of the Site, although the closest pond to this record is a further 150m to the north east.</p> <p>One pond is located approximately 470m north of the Site.</p> <p>The Site contains only a small amount of suitable habitat in the form of improved grassland at the site access. Therefore adverse effects upon amphibians are considered unlikely.</p>	None required.
Reptiles	Unknown	<p>No additional surveys required.</p> <p>The grassland and scrub habitats have potential to support reptiles, however only a very small area of suitable habitat is located on site. No further surveys are recommended due to the small habitat area, however, measures to protect reptiles must be in place during construction works.</p>	Measures to protect reptiles will need to be included within a Protected Species Compliance Report. This document will provide details regarding mitigation methods such as supervision of works and phased cutting during vegetation removal.
Birds	Unknown	<p>No additional surveys required.</p> <p>Clearance of vegetation is recommended to be undertaken outside of the bird nesting season (March – October inclusive). If this is not possible then measures will be required to protect birds during construction works.</p>	Similarly to reptiles, the measures to protect birds will be detailed within a Protected Species Compliance Report, and are likely to include supervision of works during the nest period (March to September inclusive).



Feature	Importance	Additional Assessment/Surveys/Mitigation Required with Rationale	Scope of Additional Assessment/Surveys/Mitigation, including Timings
Bats	Unknown	No additional surveys required. The Site is considered to have negligible suitability for bats. No trees with roosting suitability within the survey area will be affected and no artificial lighting is proposed.	None required.
Dormice	Unknown	No additional surveys required. Suitable habitat for hazel dormice was recorded within the survey area, however none is located on site and it is not envisaged that any suitable habitat will be lost as a result of the development.	None required.
Otter & Water vole	Unknown	No additional surveys required. The species is considered to be absent.	None required.
Brown hares and hedgehog	Local	No additional surveys required. Brown hare and hedgehog may be present within the Site.	Measures to protect brown hare and hedgehog will need to be included within a Protected Species Compliance Report. This document will provide details regarding mitigation methods such as supervision of works and phased cutting during vegetation removal.



4.1 Planning Policy and Legislation

Full details of the UK legislation and offences which are relevant to the ecological receptors identified are included in Appendix C. However, based on the findings of our assessment, it is considered that the proposals will need to consider the following policy and legal provisions:

- National Planning Policy Framework – avoid/mitigate/compensate significant harm to biodiversity;
- Conservation of Habitats and Species Regulations 2017 – avoid potential effects on EPS e.g. dormice.
- The W&CA 1981 (as amended) – avoid potential effects on reptiles, Schedule 1 birds.
-
- The NERC Act 2006 – avoid/mitigate/compensate potential effects on Species of Principal Importance (e.g. hedgehogs).
- The Hedgerow Regulations – avoid/mitigate/compensate potential effects on important hedgerows.



5.0 References

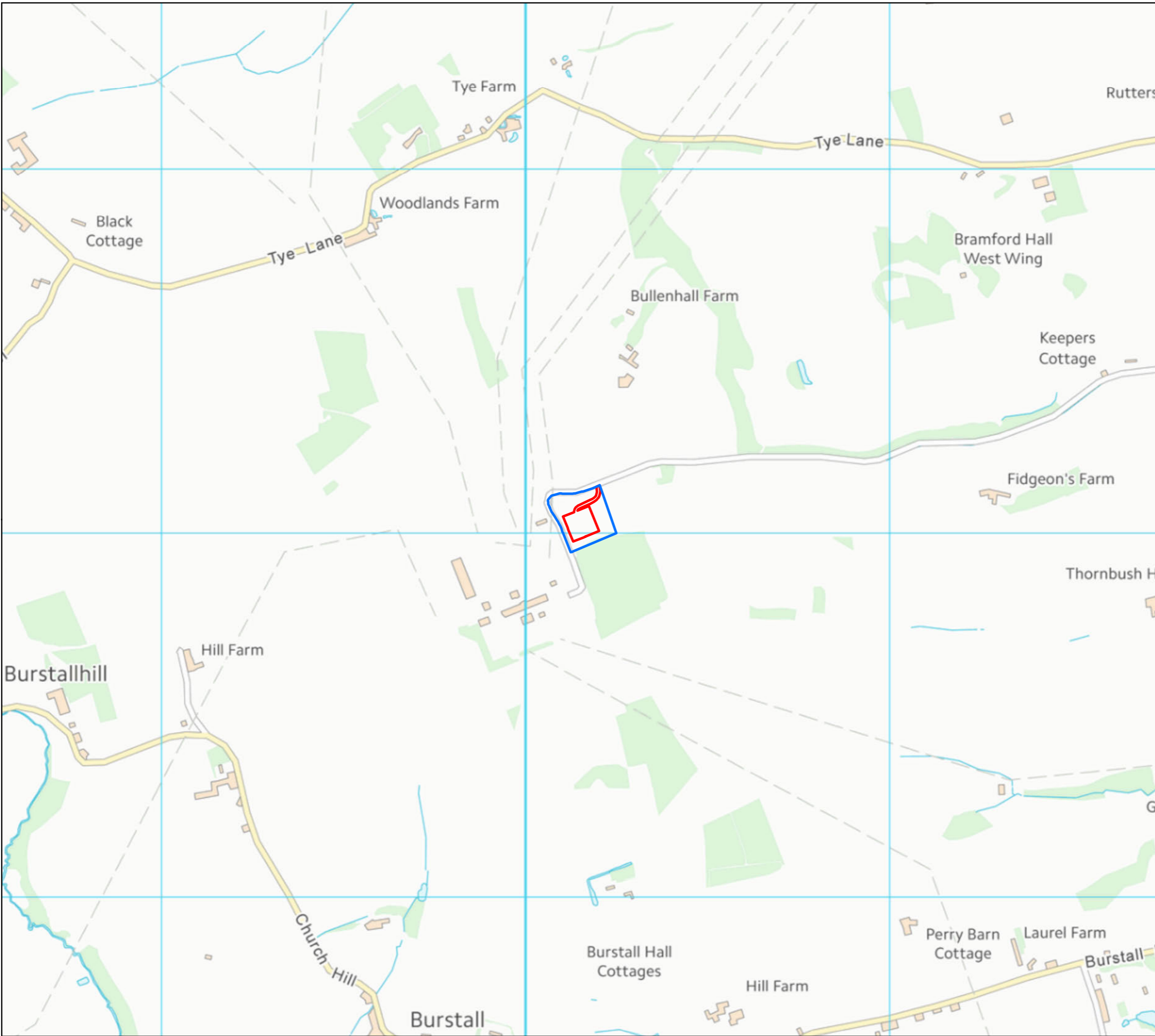
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FIGURES

Figure 1 – Site Location Plan

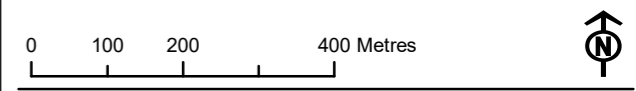
Figure 2 – Phase 1 Habitat Plan



Rev	Date	Notes
A	29/05/19	Initial map production

Legend

- Site boundary
- Survey boundary



Site Location Plan

**Bullen Lane, Bramford
Pivot Power**

Scale at A3: 1:10,000	Project No: A109352	Drawing No: Figure 1	Revision: A
Drawn by: Ben Blowers		Drawn date: 29/05/2019	Approved by: Georgia Alfreds

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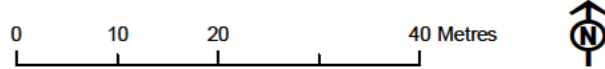
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Rev	Date	Notes
A	29/05/19	Initial map production

Legend

- Site boundary
- Survey boundary
- Broadleaved woodland - semi-natural
- Scrub - dense/continuous
- I Improved grassland
- A Arable
- Hardstanding
- Bare ground
- Defunct hedge - native species-rich
- Hedge with trees - native species-rich
- Fence
- Scattered tree
- Target note



Phase 1 Habitat Map

**Bullen Lane, Bramford
Pivot Power**

Scale at A3: 1:750	Project No: A109352	Drawing No: Figure 2	Revision: A
Drawn by: Ben Blowers	Drawn date: 29/05/2019	Approved by: Georgia Alfreds	

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Appendix A – Report Conditions

This Report has been prepared using reasonable skill and care for the sole benefit of [Pivot Power] ("the Client") for the proposed uses stated in the report by [WYG Environment Planning Transport Limited] ("WYG"). WYG exclude all liability for any other uses and to any other party. The report must not be relied on or reproduced in whole or in part by any other party without the copyright holder's permission.



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The report refers, within the limitations stated, to the environment of the Site in the context of the surrounding area at the time of the inspections'. Environmental conditions can vary and no warranty is given as to the possibility of changes in the environment of the Site and surrounding area at differing times. No investigative method can eliminate the possibility of obtaining partially imprecise, incomplete or not fully representative information. Any monitoring or survey work undertaken as part of the commission will have been subject to limitations, including for example timescale, seasonal and weather-related conditions. Actual environmental conditions are typically more complex and variable than the investigative, predictive and modelling approaches indicate in practice, and the output of such approaches cannot be relied upon as a comprehensive or accurate indicator of future conditions. The "shelf life" of the Report will be determined by a number of factors including; its original purpose, the Client's instructions, passage of time, advances in technology and techniques, changes in legislation etc. and therefore may require future re-assessment.

The whole of the report must be read as other sections of the report may contain information which puts into context the findings in any executive summary.

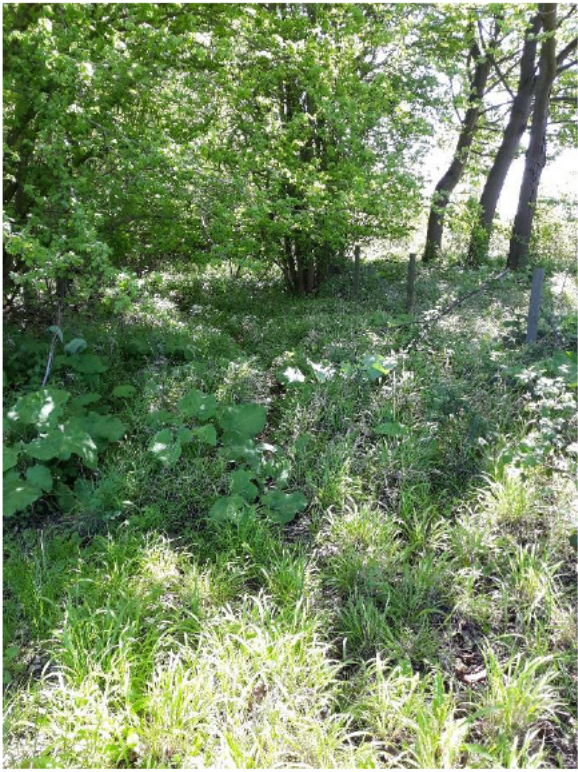

The performance of environmental protection measures and of buildings and other structures in relation to acoustics, vibration, noise mitigation and other environmental issues is influenced to a large extent by the degree to which the relevant environmental considerations are incorporated into the final design and specifications and the quality of workmanship and compliance with the specifications on site during construction. WYG accept no liability for issues with performance arising from such factors.



Appendix B – Target Notes



Target Note	Description	Photograph
1	<p>TM 10134 46108</p> <p>A species-rich intact hedgerow with trees was present along the northern boundary of the survey area.</p> <p>Bare ground earth track around entire perimeter of field.</p> <p>Locally significant hedgerow, slightly disconnected.</p> <p>Hedgerows species approximately 5m tall. Trees 25 m tall.</p> <p>Field maple (<i>Acer campestre</i>) Hazel (<i>Corylus avellana</i>) Ash (<i>Fraxinus excelsior</i>) Pedunculate oak (<i>Quercus robur</i>) Hawthorn (<i>Crataegus monogyna</i>) Blackthorn (<i>Prunus spinosa</i>) Dog-rose (<i>Rosa canina</i>) Bramble (<i>Rubus fruticosus agg.</i>)</p>	
2	<p>TM 10072 46097</p> <p>Large patch of dense scrub less than 5m tall and scattered trees was present in north-western corner of the survey area.</p> <p>Field maple (<i>Acer campestre</i>) Sycamore (<i>Acer pseudoplatanus</i>) Hedge bindweed (<i>Calystegia sepium</i>) Wild teasel (<i>Dipsacus fullonum</i>) Cleavers (<i>Galium aparine</i>) Ground-ivy (<i>Glechoma hederacea</i>) Hogweed (<i>Heracleum sphondylium</i>) White dead-nettle (<i>Lamium album</i>) Bramble (<i>Rubus fruticosus agg.</i>)</p>	

Target Note	Description	Photograph
	Common nettle (<i>Urtica dioica</i>)	
3	<p>TM 10097 46025</p> <p>Belt of dense scrub from unmanaged species-rich hedgerow 5m tall, up to 10m wide. Fence and improved narrow grass verge.</p> <p>Field maple (<i>Acer campestre</i>) English elm (<i>Ulmus procera</i>) Sessile oak (<i>Quercus petraea</i>) Cow parsley (<i>Anthriscus sylvestris</i>) Greater burdock (<i>Arctium lappa</i>) Cleavers (<i>Galium aparine</i>) Cut-leaved crane's-bill (<i>Geranium dissectum</i>) Hogweed (<i>Heracleum sphondylium</i>) Selfheal (<i>Prunella vulgaris</i>) Blackthorn (<i>Prunus spinosa</i>) Bramble (<i>Rubus fruticosus agg.</i>) Common nettle (<i>Urtica dioica</i>)</p>	



Target Note	Description	Photograph
4	<p>TM 10163 45950</p> <p>Broadleaved semi-natural woodland (Bullen Wood) partially included within the southern boundary of the survey area. Mammal paths in vegetation.</p> <p>Hazel (<i>Corylus avellana</i>) Sessile oak (<i>Quercus petraea</i>) Wych elm (<i>Ulmus glabra</i>) Bugle (<i>Ajuga reptans</i>) Lords-and-ladies (<i>Arum maculatum</i>) Common spotted-orchid (<i>Dactylorhiza fuchsii</i>) Herb Robert (<i>Geranium robertianum</i>) Bluebell (<i>Hyacinthoides non-scripta</i>) Himalayan honeysuckle (<i>Leycesteria formosa</i>) Cowslip (<i>Primula veris</i>) Wall speedwell (<i>Veronica arvensis</i>) Wood speedwell (<i>Veronica montana</i>)</p> <p>Well-connected canopy and understorey.</p>	 

Target Note	Description	Photograph
	<p>Cracks and fissures in mature dead oak tree. Assessed as having high suitability to support roosting bats.</p>	
<p>5</p>	<p>TM 10174 45980</p> <p>Improved grassland buffer strip to woodland in south of the Site. Grass verge measures approximately 6.5m wide.</p> <p>Perennial rye-grass (<i>Lolium perenne</i>) Greater plantain (<i>Plantago major</i>) Creeping buttercup (<i>Ranunculus repens</i>) Curled dock (<i>Rumex crispus</i>) Prickly sowthistle (<i>Sonchus asper</i>) Red Clover (<i>Trifolium pratense</i>)</p>	

Target Note	Description	Photograph
6	<p>TM 10221 46067</p> <p>Unmanaged, gappy species-rich defunct hedgerow with trees running along the eastern boundary of the survey area. 8m tall with taller trees and 4m wide. Dry ditch and grass verge 1.5m wide. Trees with gaps behind ivy cover assessed as having moderate suitability to support roosting bats.</p> <p>Pedunculate oak (<i>Quercus robur</i>) Elm (<i>Ulmus sp.</i>) Hawthorn (<i>Crataegus monogyna</i>) Creeping thistle (<i>Cirsium arvense</i>) Dogwood (<i>Cornus sanguinea</i>) Cleavers (<i>Galium aparine</i>) Ground-ivy (<i>Glechoma hederacea</i>) Hogweed (<i>Heracleum sphondylium</i>) Wild privet (<i>Ligustrum vulgare</i>) Curled dock (<i>Rumex crispus</i>)</p>	
7	<p>TM 10156 46044</p> <p>Arable– wheat crop</p>	



Appendix C – Planning Policy and Wildlife Legislation

Habitats Directive

The Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora, or the 'Habitats Directive', is a European Union directive adopted in 1992 in response to the Bern Convention. Its aims are to protect approximately 220 habitats and 1,000 species listed in its several Annexes.

In the UK, the Habitats Directive is transposed into national law via the Conservation of Habitats and Species Regulations 2017 (as amended) in England and Wales, and via the Conservation (Natural Habitats, etc.) Regulations (Northern Ireland) 1995 (as amended) in Northern Ireland.

Birds Directive

The EC Directive on the Conservation of Wild Birds (79/409/EEC) or 'Birds Directive' was introduced to achieve favourable conservation status of all wild bird species across their distribution range. In this context, the most important provision is the identification and classification of Special Protection Areas (SPAs) for rare or vulnerable species listed in Annex 1 of the Directive, as well as for all regularly occurring migratory species, paying particular attention to the protection of wetlands of international importance.

Conservation of Habitats and Species Regulations 2017

Regulations place a duty on the Secretary of State to propose a list of sites which are important for either habitats or species (listed in Annexes I or II of the Habitats Directive respectively) to the European Commission. These sites, if ratified by the European Commission, are then designated as Special Protection Areas (SPAs) within six years. Public bodies must also help preserve, maintain and re-establish habitats for wild birds.

The Regulations also make it an offence to deliberately capture, kill, disturb or trade in the animals listed in Schedule 2 (see The National Archives (2018c) for full list), or pick, uproot, destroy, or trade in the plants listed in Schedule 5 (see The National Archives (2018d) for full list).

Wildlife & Countryside Act 1981 (as amended)

This is the principal mechanism for the legislative protection of wildlife in the UK. This legislation is the chief means by which the 'Bern Convention' and the Birds Directive are implemented in the UK. Since it was first introduced, the Act has been amended several times.

The Act makes it an offence to (with exception to species listed in Schedule 2) intentionally:

- kill, injure, or take any wild bird;
- take, damage or destroy the nest of any wild bird while that nest is in use; or
- take or destroy an egg of any wild bird.

Or to intentionally do the following to a wild bird listed in Schedule 1:

- disturbs any wild bird while it is building a nest or is in, on or near a nest containing eggs or young; or



- disturbs dependent young of such a bird.

In addition, the Act makes it an offence (subject to exceptions) to:

- intentionally or recklessly kill, injure or take any wild animal listed on Schedule 5;
- interfere with places used for shelter or protection, or intentionally disturbing animals occupying such places; and
- The Act also prohibits certain methods of killing, injuring, or taking wild animals.

Finally, the Act also makes it an offence (subject to exceptions) to:

- intentionally pick, uproot or destroy any wild plant listed in Schedule 8, or any seed or spore attached to any such wild plant;
- unless an authorised person, intentionally uproot any wild plant not included in Schedule 8; or
- sell, offer or expose for sale, or possess (for the purposes of trade), any live or dead wild plant included in Schedule 8, or any part of, or anything derived from, such a plant.

Following all amendments to the Act, Schedule 5 'Animals which are Protected' contains a total of 154 species of animal, including several mammals, reptiles, amphibians, fish and invertebrates. Schedule 8 'Plants which are Protected' of the Act, contains 185 species, including higher plants, bryophytes and fungi and lichens. A comprehensive and up-to-date list of these species can be obtained from the JNCC website.

Part 14 of the Act makes unlawful to plant or otherwise cause to grow in the wild any plant which is listed in Part II of Schedule 9.

It is recommended that plant material of these species is disposed of as bio-hazardous waste, and these plants should not be used in planting schemes.

Protection of Badgers Act 1992

The main legislation protecting badgers in England and Wales is the Protection of Badgers Act 1992 (the 1992 Act). Under the 1992 Act it is an offence to: wilfully kill, injure, take or attempt to kill, injure or take a badger; dig for a badger; interfere with a badger sett by, damaging a sett or any part thereof, destroying a sett, obstructing access to a sett, causing a dog to enter a sett or disturbing a badger while occupying a sett.

The 1992 Act defines a badger sett as: "any structure or place which displays signs indicating current use by a badger"

Natural Environment and Rural Communities Act 2006

Section 41 (S41) of this Act requires the Secretary of State to publish a list (in consultation with Natural England) of Habitats and Species which are of Principal Importance for the conservation of biodiversity in England. The S41 list is used to guide decision-makers such as public bodies including local and regional authorities, in implementing their duty under Section 40 of the Natural Environment and Rural Communities (NERC) Act 2006, to have regard to the conservation of biodiversity in England, when carrying out their normal (e.g. planning) functions. The S41 list includes 65 Habitats of Principal Importance and 1,150 Species of Principal Importance.



Hedgerow Regulations 1997

The Hedgerow Regulations were made under Section 97 of the Environment Act 1995 and came into force in 1997. They introduced new arrangements for local planning authorities in England and Wales to protect important hedgerows in the countryside, by controlling their removal through a system of notification. Important hedgerows are defined by complex assessment criteria, which draw on biodiversity features, historical context and the landscape value of the hedgerow.

Global IUCN Red List

The International Union for Conservation of Nature (IUCN) Threatened Species was devised to provide a list of those species that are most at risk of becoming extinct globally. It provides taxonomic, conservation status and distribution information about threatened taxa around the globe.

The system catalogues threatened species into groups of varying levels of threat, which are: Extinct (EX), Extinct in the Wild (EW), Critically Endangered (CE), Endangered (EN), Vulnerable (VU), Near Threatened (NT), Least Concern (LC), Data Deficient (DD), Not Evaluated (NE). Criteria for designation into each of the categories is complex, and consider several principles.

Wild Mammals (Protection) Act 1996

This Act offers protects a form of protection to all wild species of mammals, irrespective of other legislation, and focussed on animal welfare, rather than conservation.

Unless covered by one of the exceptions, a person is guilty of an offence if he mutilates, kicks, beats, nails or otherwise impales, stabs, burns, stones, crushes, drowns, drags or asphyxiates any wild mammal with intent to inflict unnecessary suffering.

It's application is typically restricted to preventing deliberate harm to wildlife (in general) during construction works etc.

National Planning Policy Framework (2018)

The revised NPPF was issued on 24th July 2018 and currently supplements government Circular 06/2005, *Biodiversity and Geological Conservation: Statutory Obligations and their Impact within the Planning System*.

Circular 06/2005 states that the presence of protected species is a material consideration in the planning process. Paragraph 107 of the NPPF also states that '*Planning policies and decisions should contribute to and enhance the natural 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.*

The conservation and enhancement of wildlife is also specifically reference re: development within the National Parks or the Broads.

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

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

Regarding EcIA's and HRA's – any sites identified, or required, as compensatory measures for adverse effects on any Natura 2000/habitats site should also be given the same level as protection as the pSPA's and cSAC's themselves. In addition, when an application is being determined, " *The presumption in favour of sustainable development does not apply where development requiring appropriate assessment because of its potential impact on a habitats site*"

Planning policies and decisions should also ensure that new development is appropriate for its location taking into account the likely effects (including cumulative effects) of pollution on health, living conditions and the natural environment, as well as the potential sensitivity of the site or the wider area to impacts that could arise from the development. In doing so they should....:

- c) limit the impact of light pollution from artificial light on local amenity, intrinsically dark landscapes and nature conservation.*

Local Biodiversity Action Plan (LBAP)

Local Biodiversity Action Plans (LBAP) identify habitat and species conservation priorities at a local level (typically at the County level), and are usually drawn up by a consortium of local Government organisations and conservation charities.

Some LBAP's may also include Habitat Action Plans (HAP) and/or Species Action Plans (SAP), which are used to guide and inform the local decision making process.



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