

Sea Link

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Contents

1.	Extended Phase 1 Habitat Survey	1
1.1	Introduction	1
1.2	Legislation, Policy and Guidance	2
1.3	Methodology	4
1.4	Ecological Baseline	10

References	89
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Annex 2.A.1 Species Data Records Summary	91
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Table of Tables

Table 1.1 Desk study data sources	5
Table 1.2 Threshold scores for assessing the nature conservation importance of arable plant assemblages with reference to prevailing soil type (Byfield & Wilson, 2005)	8
Table 1.3 Statutory designated sites for nature conservation	11
Table 1.4 Non-statutory designated sites for nature conservation	15
Table 1.5 Hedgerow assessment results	31
Table 1.6 Important hedgerow summary	42
Table 1.7 Detailed arable flora results	49
Table 1.8 Habitat types summary within Order Limits by land parcel	53
Table 1.9 Target notes	61

Table of Plates

Plate 1.1 A1.1.1 - Broadleaved woodland - semi-natural (TM394622)	19
Plate 1.2 A1.1.2 – Broadleaved woodland – plantation (TM388621)	19
Plate 1.3 A1.2.2 – Coniferous woodland – plantation (TM404623)	20
Plate 1.4 A1.2.2 – A1.3.1 - Mixed woodland - semi-natural (TM425595)	21
Plate 1.5 A1.2.2 – A3.1 – Broadleaved parkland/scattered trees (TM399621)	22
Plate 1.6 A3.2 – Coniferous parkland/scattered trees (TM461585)	23
Plate 1.7 B1.2 - Acid grassland - semi-improved (TM462585)	24
Plate 1.8 B2.2 – Neutral grassland – semi-improved (TM398619)	25
Plate 1.9 B5 - Marsh/marshy grassland (TM465584)	25
Plate 1.10 B6 – Poor semi-improved grassland (TM397619)	26
Plate 1.11 G1 - Standing water (TM432591)	27
Plate 1.12 Coastal habitats (TM468582)	28
Plate 1.13 J1.3 - Cultivated/disturbed land - ephemeral/short perennial (TM467582)	29
Plate 1.14 J3.6 – Buildings (TM460583)	30
Plate 1.15 Hedge 3	44
Plate 1.16 Hedge 5	44
Plate 1.17 Hedge 12	44
Plate 1.18 Hedge 23	45
Plate 1.19 Hedge 24	45
Plate 1.20 Hedge 26	45
Plate 1.21 Hedge 31	46
Plate 1.22 Hedge 35	46
Plate 1.23 Hedge 40	46
Plate 1.24 Hedge 48	47
Plate 1.25 Hedge 56	47

Version History

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March 2025	A	Final	For DCO submission
May 2025	B	Final	Update to redact information so that it is not Confidential

1. Extended Phase 1 Habitat Survey

1.1 Introduction

Background

- 1.1.1 The Sea Link Project (hereafter referred to as the 'Proposed Project') is a proposal by National Grid Electricity Transmission plc (hereafter referred to as National Grid) to reinforce the transmission network in the Southeast and East Anglia. The Proposed Project is required to accommodate additional power flows generated from renewable and low carbon generation, as well as accommodating additional new interconnection with mainland Europe. This would be achieved by reinforcing the network with a High Voltage Direct Current (HVDC) Link between the proposed Friston substation in the Sizewell area of Suffolk and the existing Richborough to Canterbury 400kV overhead line close to Richborough in Kent.
- 1.1.2 The purpose of this extended Phase 1 habitat survey report is to:
- Detail the results of the extended Phase 1 Habitat Survey undertaking for the Suffolk Onshore Scheme from 2022 to 2025. The Suffolk Onshore Scheme is located on the east coast of Suffolk, as shown by **Application Document 6.4.2.2.A.1 Suffolk Phase 1 Survey Results**.
 - Assess the ecological constraints in connection with the Suffolk Onshore Scheme with reference to current good practice (CIEEM, 2017).
 - Identify relevant wildlife legislation and planning policy as summarised in **Application Document 6.2.2.2 Part 2 Suffolk Chapter 2 Ecology and Biodiversity** and is consistent with the requirements of *British Standard 42020:2013 Biodiversity. Code of Practice for Planning and Development*.
 - Establish baseline conditions and determine the presence of Important Ecological Features (IEF)¹ (or those that could be present).
 - Establish any requirements for more detailed ecological surveys.
- 1.1.3 The baseline findings of this report provide information on any potential ecological constraints associated with habitats, for incorporation into **Application Document 6.2.2.2 Part 2 Suffolk Chapter 2 Ecology and Biodiversity** for the Suffolk Onshore Scheme.
- 1.1.4 Details of avoidance, mitigation, compensation and enhancement measures relating to habitats are not included in this report and are instead reported within **Application Document 6.2.2.2 Part 2 Suffolk Chapter 2 Ecology and Biodiversity**.
- 1.1.5 This appendix should be read in conjunction with the following figures:
- **Application Document 6.4.2.2.A Extended Phase 1 Habitat Survey Report.**

¹ Important Ecological Features are habitats, species, ecosystems and their functions and processes that are of conservation importance and could potentially be affected by the Proposed Project.

Scope

- 1.1.6 This report details the results of surveys undertaken within the Suffolk Onshore Scheme Order Limits through appropriate surveys of:
- Phase 1 habitats;
 - Arable Flora;
 - Important Hedgerows; and
 - Badger presence.

1.2 Legislation, Policy and Guidance

Legislation

The Natural Environment and Rural Communities Act 2006 (HM Government, 2006)

- 1.2.1 Section 41 of the Natural Environment and Rural Communities Act 2006 ('the NERC Act') requires the listing of habitats and species that are of principal importance for the conservation of biodiversity, including those that have been identified as priorities within the UK Biodiversity Action Plan (UK BAP).
- 1.2.2 The NERC Act requires that the Section 41 list be used to guide decision-makers such as public bodies, including local and regional authorities, in implementing their duty under Section 40 of the NERC Act 'to have due regard' to the conservation of biodiversity when carrying out their normal functions.

The Hedgerow Regulations 1997 (HM Government, 1997)

- 1.2.1 These regulations prevent the removal of most countryside hedgerows without first submitting a hedgerow removal notice to the local planning authority.
- 1.2.2 The regulations specify the criteria to be used to determine which hedgerows are important. The criteria relate to the value of the hedgerows from an archaeological, historical, landscape or ecological perspective. Hedgerows that are younger than 30 years old are excluded if supportive evidence of age can be provided, as are any hedgerows that mark the boundary of a house.
- 1.2.3 In addition, the regulations only apply to hedgerows that are of a certain length. The regulations apply to any stretch of hedgerow within:
- hedgerows that are 20 metres or more long; or
 - hedgerows that are less than 20 metres long, if they are connected at each end to another hedgerow – thereby forming a continuous network of hedgerows. The length of the adjoining hedgerows is immaterial, the significant factor being the connection.
- 1.2.4 The regulations also apply to any hedgerows that are over 30 years old and qualify under any one of the criteria would be termed 'important'.

Protection of Badgers Act 1992 (HM Government, 1992)

- 1.2.5 This Act protects Badgers (*Meles meles*) and their setts. In England and Wales, this makes it an offence to:

- wilfully kill, injure or take a badger (or attempt to do so);
- cruelly ill-treat a badger;
- dig for a badger, intentionally or recklessly damage or destroy a badger sett, or obstruct access to it; cause a dog to enter a badger sett; and
- disturb a badger while it is occupying a sett.

Invasive Alien Species (Enforcement and Permitting) Order 2019 (as amended) (HM Government, 2019)

- 1.2.6 These regulations set out to address the problems concerned with invasive alien species (IASs) in order to protect native biodiversity and ecosystem services and minimize and mitigate the human health and/or economic impacts that IASs can have. It sets out rules to prevent and manage the introduction and spread of IASs through prevention, early detection and rapid eradication, and management.

Wild Mammals (Protection) Act 1996 (HM Government, 1996)

- 1.2.7 This Act makes it an offence to intentionally cause all wild mammals unnecessary suffering by certain methods (e.g. crushing, suffocation).

Regional/Local Planning and Guidance

Suffolk Local Wildlife Site Selection Criteria

- 1.2.8 In Suffolk, Local Wildlife Sites (LWS) and County Wildlife Sites (CWS) are selected based on certain selection criteria. The CWS panel is made up of representatives from Suffolk County Council, Suffolk Wildlife trust and Natural England and criteria is summarised below based on information from Suffolk Biodiversity Information Service (Suffolk Biodiversity Information Service, 2024).
- 1.2.9 The selection criteria are based on Radcliffe's habitat attributes that evaluate sites on the basis of their biological interest being of substantive nature conservation value. Meeting just one of the Habitat Primary Criteria can be sufficient to warrant designation as a CWS. These primary criteria are:
- Size – the importance and value of a site usually increases with size. Larger sites are more able to resist change and therefore remain as a viable unit. While a site's size may affect its sustainability this does not preclude selection of small sites of high quality.
 - Diversity – sites that have a variety of habitats are often of high wildlife value, particularly where they include a range of successional stages and/or ecological gradients. Individually, none of the habitats may meet the selection criteria for CWS status, but their combined value may be high enough for selection.
 - Naturalness – it is generally considered that the more natural a site is, the higher its value. However, in Suffolk, as with most of the UK, very few sites with the exception of dynamic coastal habitats are truly natural and the most important habitats are either semi-natural e.g. hay meadows and ancient woods, or even man-made e.g. urban sites. In many cases, this attribute therefore relates to a site's state under traditional management.

- **Rarity** – all habitats that are nationally/internationally rare should be considered. Suffolk is a stronghold for some habitats e.g. vegetated shingle, and these habitats may be locally frequent, but their wider importance should not be overlooked. Other habitats may be rare in Suffolk e.g. chalk grassland and should be considered in the context of their local significance.
- **Fragility** – some sites may be very susceptible to damage by interference e.g. urban sites where development of surrounding land may isolate or encroach on the site. Other sites may be fragile due to rapid succession e.g. waste ground that rapidly scrubs up. The first is really an assessment of threat and would not be used as a sole selection criterion. The second suggests that the value of a site may be short lived. While both factors may affect selection, sites should be generally be designated according to their current wildlife value.
- **Typicalness** – some habitats are intrinsically species-poor but are locally distinctive e.g. windblown coastal scrub, nutrient rich flushes associated with red crag and dry grassland associated with sands and gravels. These habitats are characteristic of the county's natural areas and are therefore included in the CWS system.

1.2.10 Secondary criteria are only considered once the primary criteria have been applied. They can provide additional information on the value of sites but will not be used for selection in their own right. These comprise:

- **Recorded history** – the value of a site can be more accurately assessed if there has been a history of biological recording and evidence of site continuity.
- **Position in ecological unit** – sites that are linked to or near other wildlife areas are generally more valuable and can play an important role in creating wildlife corridors and buffers.
- **Potential value** – the use of potential value as a criterion for site selection can cause problems, as it can be argued that with appropriate management any site potentially has high wildlife value. However, in some cases it may be useful, especially where there is an opportunity to enhance existing semi-natural habitats.
- **Intrinsic appeal** – some sites may have high-perceived intrinsic appeal and/or recreational value. In addition, sites may have a high education value. While the importance of these values should not be under-estimated they should always be considered as supplementary to the site's nature conservation value.

1.2.11 Following assessment of sites against primary and secondary habitat criteria, sites are considered against appropriate specific habitat criteria. Qualifying sites will have at least one of the attributes.

1.3 Methodology

Desk Study

1.3.1 A desk study has been undertaken to obtain background records relevant to the Suffolk Onshore Scheme Order Limits. The data obtained provides contextual information and has informed the scope of field surveys and aid with the evaluation of field survey results. The desk study data sources are presented in Table 1.1.

1.3.2 The desk-study was undertaken on 6 June 2022 and updated on 4 October 2024 to obtain records of designated sites, notable habitats (HM Government, 1997; HM

Government, 2006), and protected and notable species (Joint Nature Conservation Committee, 2023; HM Government, 2006; Suffolk Biodiversity Planning Group, 2012), within the 2 km of the Suffolk Onshore Scheme Order Limits (5 km for bats).

- 1.3.3 High-definition aerial drone imagery was used to undertake initial assessments of habitats. Flights for the drone imagery were undertaken in November 2022 and the land was comprehensively ground-truthed during 2023, 2024 and 2025.

Table 1.1 Desk study data sources

Data source	Date	Purpose
Multi-Agency Geographic Information for the Countryside (MAGIC) website (Department for Environment Food and Rural Affairs, 2024)	July 2022 and October 2024	Designated sites of nature conservation importance (statutory sites only) within 5 km of the proposed Suffolk Onshore Scheme Order Limits. This was extended to 10 km for internationally designated sites: Special Protection Areas (SPAs), Wetlands of International Importance (Ramsar sites) and Special Areas of Conservation (SACs); and, Notable habitats within 1 km of the Suffolk Onshore Scheme, these being areas of ancient woodland and 'Habitats of Principal Importance for the Conservation of Biodiversity' included in the England Biodiversity List ² .
Suffolk Biodiversity Information Centre	June 2022, updated July 2023 and October 2024	Records of non-statutory designated sites (Local Wildlife Sites) within 2 km of the proposed Suffolk Onshore Scheme Order Limits; Records of legally protected and notable species (fauna and flora) within 2 km (5 km for bats) of the proposed Suffolk Onshore Scheme Order Limits, including Species of Principal Importance for the Conservation of Biodiversity listed under Section 41 of the Natural Environment & Rural Communities Act 2006 in the England Biodiversity List.
Where's the Path website (https://wtp2.appspot.com/wheresthepath.htm)	July 2022	To identify the presence of water bodies within 500 m of the proposed Suffolk Onshore Scheme Order Limits, in order to help establish if the land within and

² Section 40 of the Natural Environment & Rural Communities (NERC) Act 2006 requires that The Secretary of State has drawn up, in accordance with Section 41 of the Act and in consultation with Natural England, a list of habitats and species of principal importance for the conservation of biodiversity in England that is known as the England Biodiversity List

Data source	Date	Purpose
		immediately surrounding the Suffolk Onshore Scheme could be used by great crested newts.
Ordnance Survey 1:2500 Pathfinder maps and aerial photography	July 2022	Information on habitats and habitat connections (based on aerial photography) relevant to interpretation of planning policy and assessment of potential protected and notable species constraints.

Field Survey

Extended Phase 1 habitat survey

- 1.3.4 Walkover surveys of accessible land were undertaken throughout 2022 and 2023 and updated during 2024 and 2025 to reflect changes to Order Limits as a result of design development.
- 1.3.5 The Extended Phase 1 habitat survey was undertaken in accordance with the standard survey method (Joint Nature Conservation Committee, 2010). Phase 1 habitat survey is a standard method of environmental audit. It involves categorising different habitat types and habitat features within the area surveyed. The information gained from the survey can be used to determine the likely ecological value of a site, and to direct any more specific survey work which may need to be carried out to inform the Ecological Impact Assessment (EclA). The standard Phase 1 habitat survey method can be “extended” to record target notes on protected, notable and invasive species.
- 1.3.6 The extended Phase 1 habitat surveys, important hedgerow assessments and habitat conditions assessments were undertaken by pairs of suitably qualified ecologists who recorded and mapped all habitat types present within the Suffolk Onshore Scheme Order Limits, along with any associated relevant ecological receptors observed. The survey area encompassed all areas which could be safely accessed within the Suffolk Onshore Scheme Order Limits and adjacent habitats. Habitat condition assessments were not conducted for habitats where a trenchless technique will be used for the proposed cable installation as there will be no direct impact on these habitats.
- 1.3.7 Where relevant ecological receptors were present, target notes were recorded and the position of these is shown on the Phase 1 habitat map (**Application Document 6.4.2.2.A.3 Suffolk Target Notes**). Typical and notable plant species were recorded for different habitat types and reflect the conditions at the time of survey. The survey was not intended to be a detailed inventory of the plant species present in the Suffolk Onshore Scheme Order Limits as this is not required for the purposes of the extended Phase 1 habitat survey.

Badger surveys

- 1.3.8 Two suitably qualified ecologists performed a walk over survey of all habitats within each land parcel where it was safe to do so. Surveys were undertaken in line with the standard approach detailed in the Mammal Society Publication Surveying Badgers

(Harris, 1989). All signs of badgers or badger activity (which includes recent digging, snuffle holes, latrines, hair, footprints and bedding) were recorded and photographed where possible. Setts were categorized by type (main, annex, subsidiary or outlier) and were then assessed as being either “in use” or “disused”, taking account of The Protection of Badgers Act (HM Government, 1992) which defines a sett as “*any structure or place which displays signs indicating current use by a badger*”).

Important hedgerow surveys

- 1.3.9 Important Hedgerow Surveys were undertaken in-line with the Hedgerow Survey Handbook (Department for Environment Food and Rural Affairs, 2007) to assess hedgerows against the Hedgerow Registrations (HM Government, 1997). Hedgerows for assessment were identified by the extended Phase 1 habitat survey habitat type mappings. Identified hedgerows were then assessed by suitably qualified ecologists who visited, assessed and recorded details for all identified hedgerows.

Arable flora surveys

Field survey

- 1.3.10 The survey area for the arable flora surveys, comprised all arable margins within the Suffolk Onshore Scheme Order Limits.
- 1.3.11 All suitable and accessible arable fields within the Suffolk Onshore Scheme were assessed for their potential to support arable flora, with surveys for important arable plant species undertaken on 28 June 2023, 10 to 11 July 2023, 24 August 2023 and 22 May 2024, within the optimal time of year for recording flora species. Given that the distribution of scarce arable plant species in the modern agricultural landscape is largely confined to arable field margins and similar areas of less intensive management, the survey only involved walking field boundaries and comparable areas of marginal habitat.
- 1.3.12 Lists of rare or scarce arable plant species were recorded during each field surveyed based on Criterion B of the Plantlife Important Arable Plant Areas (Plantlife, 2024). Criterion B for outstanding assemblages utilises the same methodology for identifying sites of Regional, National and European Importance. This scoring system tallies the weighted individual score for each species present according to their rarity and decline across Britain. The basic listing of arable species is drawn from PLANTATT: Attributes of British and Irish Plants (Hill, Preston, & Roy, 2004), which provides the most comprehensive listing of species characteristic of arable land currently available. The survey recorded arable plant species present, listed in Great Britain (Cheffings, et al., 2005) and England (Stroh, et al., 2014) Red Data Lists as Critically Endangered, Endangered, Vulnerable and Near Threatened, and those listed by Byfield and Wilson as locally, regionally or nationally scarce (Byfield & Wilson, 2005). As such, data were only collected for fields with scarce flora.
- 1.3.13 The survey results were used to determine the relative notability and importance of any scarce arable plant assemblages present. Byfield and Wilson (Byfield & Wilson, 2005) set thresholds to support this and subsequent nature conservation evaluation. Thresholds have been defined based on the cumulative total of the weighted scores of species present at each discrete location (in this case, per field location). The scoring system recognises that arable communities on a particular geological substrate may consistently score either more or less than equally valued communities on a different substrate.

Ecological importance

- 1.3.14 An essential step when undertaking the ecological impact assessment of the Suffolk Onshore Scheme was an evaluation of the relative biodiversity importance of the survey area for arable flora. This is necessary to set the terms of reference for the subsequent ecological impact assessment.
- 1.3.15 The method of evaluation has been developed with reference to the Chartered Institute of Ecology and Environmental Management (CIEEM) Guidelines (Chartered Institute of Ecology and Environmental Management, 2018). This guides scoping and carrying out environmental assessments and places appraisal in the context of relevant policies and at a geographical scale at which feature matters (i.e. international, national, regional, county, district, local or site). Data received through desk study and field-based surveys were used to identify the importance of the habitats and species addressed in this report. Professional judgement was also applied, where necessary. Relevant published national and local guidance and criteria have been used, where available, to inform the assessment of biodiversity importance and to assist consistency in evaluation.
- 1.3.16 Habitats and their component plant species can be of biodiversity importance for various reasons, and their relative importance should always be determined on a case-by-case basis. Importance may relate, for example, to the uniqueness of the assemblage, or to the extent to which species are threatened throughout their range, or to their rate of decline. (Criteria for each geographical level of importance are detailed in Table 2.7 of **Application Document 6.2.2.2 Part 2 Suffolk Chapter 2 Ecology and Biodiversity**).
- 1.3.17 No criteria are available for identifying flora assemblages of lower value/biodiversity importance than of Regional (the County of Suffolk) (see Table 1.2). Professional judgement has been applied to the flora within the Suffolk Onshore Scheme Order Limits, based on the nature of the species assemblage recorded. As such District importance assemblages have a species score between 10 and 14 or have the presence of a high-scoring species (7+), and Site/Local importance assemblages have a score between 1 and 9.

Table 1.2 Threshold scores for assessing the nature conservation importance of arable plant assemblages with reference to prevailing soil type (Byfield & Wilson, 2005)

Geographic scale of nature conservation importance	Chalk and limestone derived free draining calcareous soils (excluding clay)	Clay and slowly impermeable soils (inc. calcareous)	Sand loams, shale and free-draining soils
European	45+	40+	45+
National	25-44	25-39	30-44
Regional	15-24	15-24	15-29

Appraisal of potential suitability of habitats to support protected and notable species

- 1.3.18 An appraisal has been made of the potential suitability of the habitats present within the Suffolk Onshore Scheme Order Limits to support protected and notable species of plants or animals. Field signs, habitat features with potential to support protected species and any sightings or auditory evidence were recorded when encountered and are shown in **Application Document 6.4.2.2.A.3 Suffolk Target Notes**.
- 1.3.19 Detailed surveys for a number of species/taxons were undertaken and are reported as follows:
- **Application Document 6.3.2.2.B Appendix 2.2.B Wintering Bird Survey Report;**
 - **Application Document 6.3.2.2.C Appendix 2.2.C Breeding Bird Survey Report;**
 - **Application Document 6.3.2.2.D Appendix 2.2.D Riparian Mammals Survey Report;**
 - **Application Document 6.3.2.2.E Appendix 2.2.E Reptile Survey Report;**
 - **Application Document 6.3.2.2.F Appendix 2.2.F Aquatic Ecology Survey Report;**
 - **Application Document 6.3.2.2.G Appendix 2.2.G Terrestrial Invertebrate Survey Report;**
 - **Application Document 6.3.2.2.H Appendix 2.2.H Bat Tree Survey Report;**
 - **Application Document 6.3.2.2.I Appendix 2.2.I Nighttime Bat Walkover and Static Detector Report; and**
 - **Application Document 6.3.2.2.J Appendix 2.2.J Hazel Dormouse Survey Report.**
- 1.3.20 Evidence of badger presence is recorded in this report and in **Application Document 6.4.2.2.A.4 Suffolk Badger Evidence Locations**.

Invasive non-native species

- 1.3.21 Where any invasive non-native species were observed during the extended phase 1 habitat survey, they were recorded as target notes and are shown in **Application Document 6.4.2.2.A.3 Suffolk Target Notes**, but no detailed survey was carried out for any particular species.

Limitations

Desk study

- 1.3.22 Information obtained during the course of a desk study is dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for particular habitats or species does not necessarily mean that the habitats or species do not occur in the area for which data was reviewed. Likewise, the presence of records for particular habitats and species does not automatically mean that these still occur within the area of interest or are relevant in the context of the Suffolk Onshore Scheme. Since desk study records represent a snapshot in time, the data request of July 2022 and updated in October 2024 is considered sufficiently recent to inform this report.

Field survey

- 1.3.23 Much of the initial Extended Phase 1 Habitat Survey was undertaken through the desk-based mapping of high-definition aerial drone photography.
- 1.3.24 Initial ground truthing of the aerial photography was undertaken in 2023, further surveys were undertaken throughout 2023, 2024 and 2025, information for all parcels **Application Document 6.4.2.2.A.2 Suffolk Phase 1 Land Parcels** has been provided in Section 1.4.11. An ecological survey represents a ‘snapshot’ in time of the ecological condition of a site. The ecological character of a site can change substantially throughout both the course of a year, and from year to year impacting on the extent and quality of habitats with potential to support protected species.
- 1.3.25 It should be noted that ecosystems are dynamic and constantly changing, and therefore species may move, or new species may be recorded in subsequent years. For this reason, and in accordance with current guidance, the field survey data detailed in this report are valid for a period of two years from the date of survey (The Chartered Institute of Ecology and Environmental Management, 2019). After this date, updated surveys may be required, and advice should be sought from an appropriately qualified ecologist to determine the survey scope and methods.

Arable flora survey

- 1.3.26 The initial surveys were undertaken from May to mid-July, which is the optimum time for recording scarce arable flora. However, not all arable plant species and populations may be apparent or identifiable during this period. Due to a lack of arable plant species evidence earlier in the year, some fields with crops sown later in the year, such as beet and pumpkin, were revisited in August 2023. Areas inaccessible in 2023 were surveyed in May 2024.
- 1.3.27 Use of selective herbicides on crops observed throughout the year will have restricted the occurrence of scarce arable flora, to areas unaffected by spray, such as field entrances/turning areas.
- 1.3.28 Not all crops are of equal value for scarce arable flora. Crops of the same type are not grown in the same fields year after year; they are rotated on a regular cycle. Some crop types are more compatible than others with arable flora, depending upon the specific inputs required to maintain the crop (e.g., herbicides and fertilisers) and how closely the cultivation requirements of the crop match the ecological requirements of the scarce flora present.

1.4 Ecological Baseline

Introduction

- 1.4.1 The following sections detail the results of the desk and field-based studies undertaken to inform this extended Phase 1 habitat survey report.
- 1.4.2 With regards to background data, ‘recent’ records are considered to be those no older than ten years from the date of the most recent desk study (October 2024).

Statutory Sites

- 1.4.3 Sixteen statutory sites designated for nature conservation have been identified within the following distances from the Suffolk Onshore Scheme Order Limits

- 10 km for international sites; and
- 5 km for national sites.

1.4.4 Table 1.3 summarises the statutory designated sites situated within the study area. These are shown on **Application Document 6.4.2.2.A.5 Suffolk Designated Sites**. Note that for data confidentiality reasons, the locations of non-statutory wildlife sites (County Wildlife Sites and Roadside Nature Reserves) are not shown.

Table 1.3 Statutory designated sites for nature conservation

Designated Site	Reason for Designation	Distance from Suffolk Onshore Scheme ³
Southern North Sea Special Area of Conservation (SAC) (3,695,100 ha)	The Southern North Sea site is located in the North Sea and has been recognised as an area with predicted persistent high densities of harbour porpoise.	Adjacent to the Suffolk Onshore Scheme Order Limits
Alde-Ore and Butley Estuaries SAC (1,633 ha)	The site is designated as an SAC for its coastal lagoons, perennial and annual shingle vegetation features. The SAC boundary includes Orfordness and Shingle Street.	Approximately 300 m south of the Suffolk Onshore Scheme Order Limits
Alde-Ore and Butley Estuary Ramsar (1,633 ha)	The site is designated as a Ramsar site for its nationally-scarce plant species, assemblages of breeding and wintering wetland birds, and internationally important numbers of breeding lesser black-backed gull (<i>Larus fuscus</i>), and wintering avocet (<i>Recurvirostra avosetta</i>) and common redshank (<i>Tringa totanus</i>).	Approximately 300 m south of the Suffolk Onshore Scheme Order Limits
Alde-Ore and Butley Estuaries Special Protection Area (SPA) (1,633 ha)	The site is designated for its breeding and wintering birds, plus waterbird and seabird assemblages. The SPA boundary includes the Alde, Ore and Butley Estuaries, Hazelwood Marshes, Havergate Island, Orfordness and Shingle Street	Approximately 300 m south of the Suffolk Onshore Scheme Order Limits
Minsmere to Walberswick Heaths and Marshes SPA	There are nationally important numbers of breeding and wintering	Approximately 5.5 km northeast of

³ Where designated sites are situated outside of the Suffolk Onshore Scheme Order Limits, the distance and direction is given at the closest point of the designated site from the Order Limits.

Designated Site	Reason for Designation	Distance from Suffolk Onshore Scheme ³
(1,257 ha)	birds. In particular, the reedbeds are of major importance for breeding bittern (<i>Botaurus stellaris</i>) and marsh harrier (<i>Circus aeruginosus</i>). A range of breeding waders (e.g. Avocets (<i>Recurvirostra avosetta</i>)) and heathland birds occur in other areas of the SPA. The shingle beaches support important numbers of breeding little tern (<i>Sterna albifrons</i>), which feed substantially outside the SPA in adjacent marine waters. The site is also important for wintering bitterns and raptors.	the Suffolk Onshore Scheme Order Limits
Sandlings SPA (3,391 ha)	The site is designated for internationally important populations of breeding nightjar (<i>Caprimulgus europaeus</i>) and woodlark (<i>Lullula arborea</i>).	Within Suffolk Onshore Scheme Order Limits
Minsmere to Walberswick Heaths and Marshes SAC (1,257 ha)	The site is designated are (European dry) heathland and vegetated annual and perennial shingle habitats.	Approximately 5.5 km northeast of Suffolk Onshore Scheme Order Limits
Minsmere to Walberswick Heaths and Marshes Ramsar site (1,257 ha)	<p>The site contains a mosaic of marine, freshwater, marshland and associated habitats, complete with transition areas in between. It contains the largest continuous stand of reedbeds in England and Wales and rare transition in grazing marsh ditch plants from brackish to fresh water.</p> <p>This site supports nine nationally scarce plants and at least 26 red data book invertebrates. It supports a population of the mollusc <i>Vertigo angustior</i> recently discovered on the Blyth estuary river walls.</p> <p>An important assemblage of rare breeding birds associated with marshland and reedbeds is present including: <i>Botaurus stellaris</i>, <i>Anas</i></p>	Approximately 5.5 km northeast of Suffolk Onshore Scheme Order Limits

Designated Site	Reason for Designation	Distance from Suffolk Onshore Scheme ³
	<i>strepera</i> , <i>Anas crecca</i> , <i>Anas clypeata</i> , <i>Circus aeruginosus</i> , <i>Recurvirostra avosetta</i> , <i>Panurus biarmicus</i>	
Minsmere to Walberswick Heaths and Marshes SPA (1,257 ha)	There are nationally important numbers of breeding and wintering birds. In particular, the reedbeds are of major importance for breeding bittern (<i>Botaurus stellaris</i>) and marsh harrier (<i>Circus aeruginosus</i>). A range of breeding waders (e.g. Avocets (<i>Recurvirostra avosetta</i>)) and heathland birds occur in other areas of the SPA. The shingle beaches support important numbers of breeding little tern (<i>Sterna albifrons</i>), which feed substantially outside the SPA in adjacent marine waters. The site is also important for wintering bitterns and raptors.	Approximately 5.5 km northeast of the Suffolk Onshore Scheme Order Limits
Snape Warren SSSI (47.2 ha)	The site is a fine example of the lowland heathland of eastern England, which has been subject to considerable loss in the last 40 years. The vegetation is characterised by extensive areas of <i>Calluna</i> heath interspersed with acid grassland dominated by common bent (<i>Agrostis capillaris</i>).	Approximately 1.3 km south of the Suffolk Onshore Scheme Order Limits
Leiston-Aldeburgh SSSI (535 ha)	Leiston-Aldeburgh is designated for a rich mosaic of habitats including acid grassland, heath, scrub, woodland, fen, open water and vegetated shingle. A diverse and abundant community of breeding and overwintering birds, a high number of dragonfly species and many scarce plants.	Within Suffolk Onshore Scheme Suffolk Onshore Scheme Order Limits
Gromford Meadow SSSI (1.6 ha)	Gromford Meadow is a good example of an unimproved base-rich marsh on an alluvial soil with a high organic content. It borders the River Alde and is fed by springs. It	Approximately 2 km southwest of Suffolk Onshore Scheme Order Limits

Designated Site	Reason for Designation	Distance from Suffolk Onshore Scheme ³
	is species-rich and contains a variety of characteristic fen meadow and marshland plants.	
Alde-Ore Estuary SSSI (2,534 ha)	The site also contains a number of coastal formations and estuarine features including mudflats, saltmarsh, vegetated shingle and coastal lagoons which are of special botanical and ornithological value.	Approximately 300 m south of the Suffolk Onshore Scheme Order Limits
Sizewell Marshes SSSI (104 ha)	Sizewell Marshes are important for their large area of lowland, unimproved wet meadows which support outstanding assemblages of invertebrates and breeding birds.	Approximately 3.3 km north of Suffolk Onshore Scheme Order Limits
Sandlings Forest SSSI (2,486 ha)	This site is notified for its coniferous woodland which supports internationally important populations of woodlark (<i>Lullula arborea</i>) and nightjar (<i>Caprimulgus europaeus</i>).	Approximately 3.6 km south of the Suffolk Onshore Scheme Order Limits
Iken Wood (SSSI) (5.4 ha).	Iken Wood lies close to the banks of the River Alde and may well be the only ancient coppice wood on blown sand in Britain. It is the most interesting example of lowland coppice oakwood in Suffolk and has a distinctive flora typical of woods on light soils.	Approximately 3.6 km southwest of Suffolk Onshore Scheme Order Limits
The Haven, Aldeburgh Local Nature Reserve (LNR) (20 ha)	The site is designated for an area of lagoons and reedbeds.	Within Suffolk Onshore Scheme Order Limits
Orfordness-Havergate National Nature Reserve (NNR) (909 ha)	The site is a large shingle spit separated from the mainland by the River Alde. The shingle supports a number of rare and scarce invertebrates, particularly beetles and spiders. and the site is also an important breeding place for many bird species.	Approximately 3.2 km south of Suffolk Onshore Scheme Order Limits

Non-Statutory Sites

1.4.5 Seventeen non-statutory sites designated for nature conservation have been identified within 2 km of the Suffolk Onshore Scheme Order Limits. These are shown in Table 1.4.

Table 1.4 Non-statutory designated sites for nature conservation

Designated Site	Reason for designation	Distance from site
Aldeburgh Golf Course CWS (89 ha)	Aldeburgh Golf Course is a large site of considerable importance for wildlife with a number of biodiversity priority habitats (e.g. lowland heathland) typical of the Suffolk Sandlings. It consists of two distinct areas; the main course north of the A1094 and the river course south of the road.	Within Suffolk Onshore Scheme Order Limits
Disused Railway Line (Aldringham – Aldeburgh) CWS (1.8 ha)	This section of disused railway line which serves as a public footpath supports a species-diverse flora both on the line of the old track and on the gently sloping embankments.	Within Suffolk Onshore Scheme Order Limits
Benhall Green Meadows CWS (8.8 ha)	This series of meadows forms one of the largest remaining areas of flower-rich marsh in the Alde catchment. They contain a wide range of notable wet meadow plants.	Approximately 60 m southwest of Suffolk Onshore Scheme Order Limits
Great Wood CWS (5.9 ha)	Great Wood is included in the Inventory of Ancient Woodland compiled by Natural England.	Approximately 88 m north of the Suffolk Onshore Scheme Order Limits
Knodishall Common CWS (11 ha)	The Common supports a mosaic of valuable of lowland heathland habitat including areas of birch (<i>Betula sp.</i>) and sycamore (<i>Acer pseudoplatanus</i>) woodland, gorse (<i>Ulex europaeus</i>) scrub, bracken (<i>Pteridium aquilinum</i>) open acid grassland, heather (<i>Calluna sp.</i>), lichen heath and bare ground. The woodland and areas of dense gorse scrub provide opportunities for a range of both common and migratory bird species, as well as notable species including linnet (<i>Linaria cannabina</i>) and turtle dove (<i>Streptopelia turtur</i>) and nightingale (<i>Luscinia megarhynchos</i>).	Approximately 252 m northeast of Suffolk Onshore Scheme Order Limits
Knodishall Whin CWS (1.6 ha)	The Whin consists of a mosaic of heathland habitats including acid grassland, lichen heath and gorse/bramble scrub. A linear strip of scrub lies at the southwestern end of the site, providing habitat opportunities for invertebrates and birds.	Approximately 535 m southwest of the Suffolk Onshore Scheme Order Limits

Designated Site	Reason for designation	Distance from site
Kelsale Morio Meadow CWS (1 ha)	A species rich grassland.	Approximately 1 km north of the Suffolk Onshore Scheme Order Limits
Suffolk Shingle Beaches CWS (39 ha)	The stretches of shingle beach along the Suffolk coast are of a national conservation importance for the range of shingle plants that grow there. All of the shingle beaches are of high conservation value, and most are already covered as SSSIs the remaining areas have been designated as CWS.	Approximately 1.1 km north of Suffolk Onshore Scheme Order Limits
Church Common CWS (2.2 ha)	This site includes an area of remnant heathland, a large area of short-grazed acid grassland. A number of nationally rare species have been recorded on this site and is also noted for its unusual population of white harebells (<i>Campanula rotundifolia</i>).	Approximately 1.2 km southwest of Suffolk Onshore Scheme Order Limits
Benhall Churchyard CWS (0.5 ha)	A species rich grassland.	Approximately 1.3 km west of the Suffolk Onshore Scheme Order Limits
Manor Farm Meadows CWS (1.4 ha)	A species rich grassland.	Approximately 1.3 km southwest of the Suffolk Onshore Scheme Order Limits
Grove Wood County Wildlife Site (CWS) (10 ha)	Grove Wood can be divided into two parts. To the east and west of a minor road is a hazel (<i>Corylus avellana</i>), ash (<i>Fraxinus excelsior</i>), field maple (<i>Acer campestre</i>) and elm (<i>Ulmus sp.</i>) coppice wood with English oak (<i>Quercus robur</i>) and ash standards. The northern boundary is formed by a very good example of an ancient ditch and bank with a large mixed hedge. There is a diversity of ground flora on this hedge bank including abundant primrose (<i>Primula vulgaris</i>). This site is classified as Ancient Replanted Woodland.	Adjacent to Suffolk Onshore Scheme Order Limits
Aldeburgh Old Allotments CWS (0.5 ha)	This site is an area of disused allotments situated to the west of Aldeburgh town, adjacent to Aldeburgh Marshes. The site is a mosaic of habitats that attracts a wide range of wildlife.	Approximately 1.6 km south of the Suffolk Onshore Scheme Order Limits
Buckleswood CWS (4.6 ha)	Buckle's Wood has a good coppice with standard structure and several rides. The coppice stools are old, mainly hazel, with ash, field maple and hornbeam (<i>Carpinus sp.</i>) also present. The standards are oak and even-aged. There is a good ditch and bank boundary with a mixed species	Approximately 1.9 km northeast of Suffolk Onshore Scheme Order Limits

Designated Site	Reason for designation	Distance from site
	hedge, which together with the old coppice stools, indicates a woodland of some considerable age.	
Lonely Wood CWS (5.6 ha)	An ancient woodland	Approximately 2.4 km northwest of the Suffolk Onshore Scheme Order Limits
Roadside Nature Reserve (RNR) 216 (<0.1ha)	The RNR contains a legally protected rare fungus - sandy stiltball (<i>Battarrea phalloides</i>).	Approximately 1.9 km north of the Suffolk Onshore Scheme Order Limits
Tiggins Lane RNR 209 (0.3 ha)	Roadside grassland, species of boulder clay flora including sulphur clover (<i>Trifolium ochroleucum</i>), yellow rattle (<i>Rhinanthus minor</i>), field scabious (<i>Knautia arvensis</i>), sneezewort (<i>Achillea ptarmica</i>), pepper saxifrage (<i>Silene silaus</i>), wild basil (<i>Clinopodium vulgare</i>), red bartsia (<i>Odontites vernus</i>), cowslips (<i>Primula veris</i>), false oxlip (<i>Primula x polyantha</i>), ramsons (<i>Allium ursinum</i>) and Primrose (<i>Primula vulgaris</i>).	Approximately 2.7 km north of the Suffolk Onshore Scheme Order Limits

Habitats

Desk study

Ancient woodland

- 1.4.6 There are two blocks of woodland listed as ancient woodland on the National Forest Inventory 2014 (likely Habitat of Principal Importance or HoPI, listed on Section 41 of the Natural Environment and Rural Communities Act 2006 (HM Government, 2006)) within 500 m of the Suffolk Onshore Scheme Order Limits (**Application Document 6.4.2.2.A.5 Suffolk Designated Sites**).
- 1.4.7 Great Wood is approximately 88 m to the north of the Suffolk Onshore Scheme Order Limits (TM437594), is classified as Ancient and Semi-Natural Woodland (Department for Environment Food and Rural Affairs, 2024) and is included in the inventory of ancient woodland.
- 1.4.8 Grove Wood is adjacent to and largely surrounded by the Suffolk Onshore Scheme Order Limits (TM417610), it is classified as Ancient Replanted Woodland.

Notable habitats and protected and notable flora

- 1.4.9 The data search indicated that Priority Habitats (HM Government, 2006) are located either within or adjacent to (i.e., up to 500 m from) the Suffolk Onshore Scheme Order Limits (**Application Document 6.4.2.2.A.1 Suffolk Phase 1 Survey Results**) as follows:

- Coastal Saltmarsh (Improved Grassland) – present along the shore of the Alde-Ore Estuary;
- Coastal sand dunes (Supralittoral Sediments) – present within the Suffolk Onshore Scheme along the coast;
- Mudflats (Littoral Sediments) – present along the shore of the Alde-Ore Estuary;
- Coastal and Floodplain Grazing Marsh (Improved Grassland) – present within the Suffolk Onshore Scheme Order Limits along the coast;
- Lowland Dry Acid Grassland (Acid Grassland) – present within the Suffolk Onshore Scheme Order Limits between Saxmundham Road and Aldeburgh Road;
- Lowland Heathland (Dwarf Shrub Heath) – Adjacent to the Suffolk Onshore Scheme Order Limits in the eastern section to the north of Saxmundham Road;
- Traditional Orchards (Broadleaved, Mixed and Yew Woodland) – at Park Farm; and
- Hedgerows/arable field margins (Boundary and Linear Features) – present throughout the arable areas of the Suffolk Onshore Scheme Order Limits.

Field survey

1.4.10 Summary of classifications and area of the habitats types by parcel within the Suffolk Onshore Scheme Order Limits are provided in Table 1.8 and shown on **Application Document 6.4.2.2.A.2 Suffolk Phase 1 Land Parcels**, with specific features highlighted by target notes (TNs) provided in Table 1.9 and shown in **Application Document 6.4.2.2.A.3 Suffolk Target Notes**.

1.4.11 A summary of habitats follows.

A1.1.1 - Broadleaved woodland - semi-natural

1.4.12 There were multiple small woodland blocks across the Suffolk Onshore Scheme Order Limits, the majority of which were outside of the Suffolk Onshore Scheme Order Limits. This includes two parcels of ancient woodland, Great Wood and Grove Wood.

1.4.13 Approximately 1.2 ha of semi-natural cricket bat willows (*Salix alba* 'Caerulea') woodland (effectively a plantation, which could also be considered as grassland) is present in land parcel 468 with a ground flora with trees including by *Geranium* spp., common nettle (*Urtica dioica*) and cleaver spp.. Associated target notes include 468-1.

1.4.14 Approximately 2.00 ha of woodland is located within land parcel 91. This small copse includes field maple, sweet chestnut (*Castanea sativa*) and ash species, with an understory of bluebell (*Hyacinthoides non-scripta*), hogweed (*Heracleum sphondylium*), cow parsley (*Anthriscus sylvestris*), common nettle.

1.4.15 Approximately 3.9 ha of woodland is located in the mitigation area to the south of Parcel 66. This area is predominantly English Oak and Birch with an understory of bracken and bramble scrub.

1.4.16 Other minor areas of woodland exist in land parcels 3, 7, 18, 28, 58, 86, 162, 187, 192, 205, 421, 592, 593, 605, 622, 623 and 626 within the Suffolk Onshore Scheme Order Limits.



Plate 1.1 A1.1.1 - Broadleaved woodland - semi-natural (TM394622)

A1.1.2 - Broadleaved woodland – plantation

- 1.4.17 As with semi-natural, there were several woodland blocks of plantation woodland. Approximately 0.4 ha strip of woodland in a u-shape was present within land parcel 91 and contains mature oaks close to the pond also situated within the land parcel and young oak plantation with silver birch (*Betula pendula*) further east and south. This block of woodland contained a large number of young saplings, with a ground cover dominated by bramble (*Rubus fruticosus*). The woodland also contained ash, field maple, hazel, dog rose (*Rosa canina*), hawthorn, plum (*Prunus sp.*), large-leaved lime (*Tilia platyphyllos*), and elm (*Ulmus sp.*). Associated target notes include 421-3 to 421-5 and 91-7 to 91-11.
- 1.4.18 A large area of plantation woodland (approximately 4.6 ha) was also present within land parcel 468. This plantation woodland contains cricket bat willows (*Salix alba* 'Caerulea') to the west of the River Fromus. Associated target notes 468-1.
- 1.4.19 Additionally, a small woodland block of hybrid black poplars (approximately 0.03 ha) is present within land parcel 137. Associated target notes 137-1. Other small areas exist in land parcels 152 and 421 of negligible size (<0.01 ha).



Plate 1.2 A1.1.2 – Broadleaved woodland – plantation (TM388621)

A1.2.2 – Coniferous woodland – plantation

- 1.4.20 There were several stands of coniferous woodland plantation within and adjacent to the Suffolk Onshore Scheme Order Limits. Approximately 1.2 ha of land within land parcel 89 was planted as a Christmas tree plantation. There was also an area of mature coniferous plantation within land parcel 152 north of the Aldeburgh golf course and immediately adjacent to the Suffolk Onshore Scheme Order Limits.



Plate 1.3 A1.2.2 – Coniferous woodland – plantation (TM404623)

A1.3.1 – Mixed woodland – semi-natural

- 1.4.21 The majority of the woodland blocks across the Suffolk Onshore Scheme Order Limits and adjacent to it were broadleaved woodlands. However, there were a few parcels of woodland that were recorded as mixed woodland. The woodland in land parcel 152 north of the Aldeburgh golf course immediately adjacent to the Suffolk Onshore Scheme Order Limits was recorded with species including sycamore, Scot's pine (*Pinus sylvestris*) and elm.
- 1.4.22 Further west within land parcel 58 and immediately south of the Suffolk Onshore Scheme Order Limits was located a second block of mixed woodland recorded with species including sweet chestnut, Scot's pine, silver birch, sycamore, hawthorn and elm.
- 1.4.23 A small block of coniferous woodland is found immediately adjacent to land parcel 88 and in the mitigation area to the south of Parcel 66.



Plate 1.4 A1.2.2 – A1.3.1 - Mixed woodland - semi-natural (TM425595)

A2.1 - Scrub - dense/continuous

- 1.4.24 Areas of dense scrub were present in small areas within and adjacent to the Suffolk Onshore Scheme Order Limits. These areas are minimal. Small areas were present within land parcels 28, 152, 162, 192, 205, 212, 214, 468 and 516. The majority of scrub was present within land parcel 205 within the North Warren RSPB and SSSI and was gorse scrub, which bordered the road to the east of the reserve.

A2.2 - Scrub – scattered

- 1.4.25 Scattered scrub was present in small areas within and adjacent to the Suffolk Onshore Scheme Order Limits. These areas were minimal. A negligible amount of scattered scrub was present within land parcel 58. Approximately 0.2 ha of this habitat was present in the mitigation area to the south of Parcel 66.

A3.1 – Broadleaved parkland/scattered trees

- 1.4.26 Scattered and lines of broadleaved trees were present across the whole Suffolk Onshore Scheme Order Limits. A line of broadleaved parkland/scattered trees was present bisecting two fields in land parcel 193, with species including oak and silver birch. Individual broadleaved trees were also recorded within the land parcel 152 along the access track off Leiston Road into the main acid grassland fields north of the golf course. These trees contain suitability for roosting bats.
- 1.4.27 A line of oak trees separates arable fields in parcel 626.
- 1.4.28 Small areas of scattered lines of trees are also found in land parcels 7, 13, 89, 91, and 192.



Plate 1.5 A1.2.2 – A3.1 – Broadleaved parkland/scattered trees (TM399621)

A3.2 – Coniferous parkland/scattered trees

- 1.4.29 A line of mature Corsican pine (*Pinus nigra subsp. Laricio*) was present along the boundary of North Warren RSBP Reserve and SSSI (land parcel 205) and the abandoned railway (land parcel 192). Associated target notes 192-2. Negligible habitat of this type was also present in land parcels 152 and 162.



Plate 1.6 A3.2 – Coniferous parkland/scattered trees (TM461585)

B1.2 - Acid grassland - semi-improved

- 1.4.30 The areas of semi-improved acid grassland were found in the east of the Suffolk Onshore Scheme Order Limits along the coastline and west to the Aldeburgh golf course. These habitats were found over the sandier soils present in this area. Areas of semi-improved acid grassland included land parcel 152 north of Aldeburgh golf course (approximately 4.46 ha), land parcel 193 (approximately 4.2 ha) and 188 (approximately 0.14 ha) south of Sandlings SPA and 205 (approximately 1.1 ha) within the North Warren RSPB Reserve and SSSI. Species found within these areas of semi-improved acid grassland included common bent, early hair-grass (*Aira praecox*), sweet vernal-grass (*Anthoxanthum odoratum*), Yorkshire fog (*Holcus lanatus*), common cat's-ear (*Hypochaeris radicata*), smooth cat's-ear (*Hypochaeris glabra*), common fiddleneck (*Amsinckia micrantha*), lesser swine-cress (*Lepidium didymum*) and tree lupin (*Lupinus arboreus*), ribwort plantain (*Plantago lanceolata*), sheep's sorrel (*Rumex acetosella*), broom (*Cytisus scoparius*), common stork's-bill (*Erodium cicutarium*), smooth hawk's-beard (*Crepis capillaris*), bastard toadflax (*Rapistrum rugosum*), sand sedge (*Carex arenaria*), as well as some small stands of dense common gorse scrub (*Ulex europaeus*). Associated target notes 188-1 and 205-1. Small areas of this habitat were also present in land parcels 162 and 187.
- 1.4.31 A further 3.75 ha of semi-improved acid grassland is located in the mitigation area to the south of Parcel 66. This is species poor acid grassland U1b *Festuca ovina*-*Agrostis capillaris*-*Rumex acetosella* grassland, more improved to the east and north-east with invading bracken.



Plate 1.7 B1.2 - Acid grassland - semi-improved (TM462585)

B2.2 - Neutral grassland - semi-improved

- 1.4.32 Neutral semi-improved grassland was present throughout the Suffolk Onshore Scheme as grassland margins to arable fields of varying widths (land parcels 2, 20, 28, 58, 67, 86, 89, 91 (2 ha), 192, 421, 422, 424, 625 and 626).
- 1.4.33 A large strip (3.6 ha) of neutral semi-improved grassland, approximately 15 to 75 m in width and situated east of an arable field within land parcel 468 (west of the River Fromus) was of moderate species diversity and contained some pyramidal orchids (*Anacamptis pyramidalis*) and southern marsh orchids (*Dactylorhiza pratermissa*). Associated targets notes 468-1.
- 1.4.34 An area of neutral semi-improved grassland around the reservoir in land parcel 58 and within the Suffolk Onshore Scheme Order Limits, was approximately 5 m in width and was again of moderate diversity including species such as dandelion (*Taraxacum officinalis*), hedge bedstraw (*Galium mollugo*), false oat grass (*Arrhenatherum elatius*), cocks foot (*Dactylus glomerata*), brome (*Bromus sp.*), common bent (*Agrostis capillaris*), timothy (*Phleum pratense*), shining cranesbill (*Geranium lucidum*), cut-leaved cranesbill (*Geranium dissectum*), creeping thistle (*Cirsium arvense*), perforate St. John's wort (*Hypericum perforatum*), nipplewort (*Lapsana communis*), bramble, spear thistle (*Cirsium vulgare*), common mallow (*Malva sylvestris*), yarrow (*Achillea millefolium*), common vetch (*Vicia sativa*), red fescue (*Festuca rubra*), sow thistle (*Sonchus oleraceus*) and crested dogs-tail (*Cynosurus cristatus*). Approximately 2.36 ha of neutral semi-improved grassland is present within the North Warren RSPB Reserve and SSSI (land parcel 205).



Plate 1.8 B2.2 – Neutral grassland – semi-improved (TM398619)

B4 - Improved grassland

- 1.4.35 Areas of improved grassland were recorded within the Suffolk Onshore Scheme Order Limits within land parcels including 7, 18, 187, 192, 467, and 603.

B5 - Marsh/marshy grassland

- 1.4.36 Areas (approximately 6.5 ha) of the North Warren RSPB Reserve and SSSI in land parcel 205 were recorded as marsh/marshy grassland. These areas were surveyed from PRow due to the marshy nature of the habitat. The marsh was grazed by cattle and horses. Areas of marshy grassland were framed by reedbeds (*Phragmites australis*) and standing water. In the winter the areas of standing water increase. Associated target notes 205-2. This habitat (approximately 0.4 ha) was also found in the mitigation area to the south of Parcel 66.



Plate 1.9 B5 - Marsh/marshy grassland (TM465584)

B6 – Poor semi-improved grassland

- 1.4.37 There were several small areas within and immediately adjacent to the Suffolk Onshore Scheme Order Limits in land parcels 1, 91, 152, 162 and 421. The area within the Suffolk Onshore Scheme Order Limits in land parcel 152 was the largest of these areas (approximately 1 ha) and included a newly planted plantation of Scots pine (24 trees in

total 50 cm – 1 m height). Other flora recorded consisted of field sorrel (*Rumex acetosella*), dandelion, small flowered cranesbill, common thistle (*Cirsium vulgare*), ribwort plantain, bramble, meadow buttercup (*Ranunculus acris*), common vetch, western gorse (*Ulex gallii*), common nettle, heath groundsel (*Senecio sylvaticus*), spear thistle, bracken, sweet vernal grass (90%), brome (*Bromus spp.*).



Plate 1.10 B6 – Poor semi-improved grassland (TM397619)

C1.1 - Bracken – continuous

- 1.4.38 Areas of bracken were present in small areas within and adjacent to the Suffolk Onshore Scheme Order Limits. These areas were minimal. Small areas were present within land parcel 192 and 193.

C3.1 - Other tall herb and fern - ruderal

- 1.4.39 Areas of tall ruderals were present in small areas within and adjacent to the Suffolk Onshore Scheme Order Limits. These areas were minimal and in the majority bracken. Small areas were present within land parcel 58 and 205.

F1 – Swamp

- 1.4.40 Areas of swamp were recorded within land parcel 205 and 212 these areas were located around the standing water and the majority of macrophytes were reed. This was a transition habitat between the marshy grassland and open water within the North Warren RSPB Reserve and SSSI. Another small area of swamp is located in land parcel 516.

G1 - Standing water

- 1.4.41 Standing water was present within and immediately adjacent to the Suffolk Onshore Scheme Order Limits in the form of ponds, wet ditches across the length of the Suffolk Onshore Scheme Order Limits as well as drainage ditches and open water within the

North Warren RSPB Reserve and SSSI (land parcel 205). Standing water is present in land parcels 13, 91, 205, 421, 468 and 516.



Plate 1.11 G1 - Standing water (TM432591)

G2 - Running water

- 1.4.42 The River Fromus runs north-south through land parcel 468 in the west of the Suffolk Onshore Scheme Order Limits. A small section (<100 m) of the Hundred River was present within the Suffolk Onshore Scheme Order Limits and was located adjacent to the boundary of land parcel 28. Other running water was present within land parcels 3, 89, 468 and the mitigation area to the south of Parcel 66.

H8.4 - Coastal grassland, H1.1 - Intertidal - mud/sand, H3 - Shingle above high tide mark, H6.5 - Dune grassland, H6.6 - Dune heath

- 1.4.43 Various important coastal/shingle vegetation communities including dune heath, coastal grassland and strandline shingle were present along the beach at the eastern extent of the Suffolk Onshore Scheme Order Limits. Species recorded within these areas included biting stonecrop (*Sedum acre*), curled dock (*Rumex crispus*), false oat grass, crested hair-grass (*Koeleria macrantha*), sea beet (*Beta vulgaris subsp. maritima*), sea kale (*Crambe maritima*), bittersweet (*Solanum dulcamara*), sea sandwort (*Honckenya peploides*), sea bindweed (*Calystegia soldanella*), yellow-horned poppy (*Glaucium flavum*), sea pea (*Lathyrus japonicus*), sea campion (*Silene uniflorae*), common restharrow (*Ononis repens*) and, mouse-ear hawkweed (*Pilosella officinarum*). Associated target notes 214-1. These areas were within the Suffolk Onshore Scheme Order Limits.
- 1.4.44 These habitats were found in land parcels 214 and 215.



Plate 1.12 Coastal habitats (TM468582)

J1.1 – Cultivated/disturbed land – arable

- 1.4.45 Arable crop was the main habitat present within the Suffolk Onshore Scheme Order Limits west of Alburgh golf course, to the east there was little agricultural land. Crops recorded present included barley (*Hordeum vulgare*).
- 1.4.46 Arable crop is found in land parcels 1, 2, 3, 4, 5, 7, 11, 12, 13, 20, 25, 28, 58, 66, 86, 89, 91, 421, 422, 423, 468, 604 and 626.

J1.2 - Cultivated/disturbed land - amenity grassland

- 1.4.47 Fields of amenity grassland were present within land parcel 28 and 58 within and adjacent to the Suffolk Onshore Scheme Order Limits. These fields were utilised as turf farms for the growing and harvesting of rolls of turf. Other areas of this habitat were present in land parcels 7, 14, 20, 88, 91 (approximately 4 ha), 422, 623 and 626 (approximately 4.8 ha).



Plate 1.13 J1.3 - Cultivated/disturbed land - ephemeral/short perennial (TM467582)

J2.1.2 - Intact hedge - species-poor

- 1.4.48 Hedgerows within this category did not present gaps. A hedgerow within land parcel 58 was described to be hawthorn dominant and leggy, overgrown into the poplar woodland to the east.

J2.2.1 - Defunct hedge - native species-rich

- 1.4.49 A single hedgerow within land parcel 152 north of the Aldeburgh golf course, was recorded as defunct and species rich. This hedgerow runs north south across the cable corridor.

J2.2.2 - Defunct hedge - species-poor

- 1.4.50 Defunct hedgerows were recorded to be gappy and no longer functioning as a hedge. A hedgerow within land parcel 58 was described to be gappy hawthorn with a ground flora of hogweed, nettle and dock. Another species poor hedgerow within land parcel 58 was recorded as gappy hawthorn with lots of bracken and some elm, the ground flora was recorded as ragwort, red deadnettle (*Lamium purpureum*), vipers bugloss (*Echium vulgare*), and bramble.

J2.3.2 - Hedge with trees - species-poor

- 1.4.51 An example of a defunct and gappy hedgerow was recorded in land parcel 58 this hedgerow was again hawthorn, with blackthorn (*Prunus spinosa*), dogwood (*Cornus sanguinea*), nettle, mallow, hogweed, red deadnettle, rose, oak, field maple, white bryony (*Bryonia dioica*).

J2.3.1 - Hedge with trees – native species-rich

- 1.4.52 A species rich hedgerow with trees was recorded separating land parcel 421 and 91 north of the proposed Saxmundham Converter Station site. The hedgerow species included field maple, hazel, hawthorn, elder, spindle, and dog wood. A second hedgerow recorded as species rich with trees was located within land parcel 91 south of the proposed Saxmundham Converter Station site. This hedgerow had recorded species including field maple, hawthorn, oak, laurel (*Laurus sp.*), rose, sycamore and

ash. Mature trees of oak and ash were present within the hedgerow every few metres. Part of this hedgerow is within the Suffolk Onshore Scheme Order Limits.

J2.6 – Dry ditch

- 1.4.53 Dry ditches were present along some field margins within (land parcel 468) and adjacent to the Suffolk Onshore Scheme Order Limits.

J3.6 – Buildings

- 1.4.54 Buildings were present within and adjacent to the Suffolk Onshore Scheme Order Limits (land parcels 58, 91, 212, 516 and 626). The majority of buildings have not been fully assessed as they are not due for demolition. A disused tower adjacent to the scheme and present within land parcel 193 showed signs of barn owl roosting.



Plate 1.14 J3.6 – Buildings (TM460583)

J4 - Bare ground

- 1.4.55 Bare ground was present throughout the Suffolk Onshore Scheme Order Limits as farmland tracks between fields.

Z99 – Hardstanding

- 1.4.56 Hardstanding within and adjacent to the Suffolk Onshore Scheme Order Limits include farmland tracks and yards, main and side roads and car parks.

Hedgerows Condition Assessment

- 1.4.57 The hedgerows within and immediately adjacent to the Suffolk Onshore Scheme Order Limits typically acted as the margins for the arable fields present. Using the criteria set out in the Hedgerow Regulations 1997 (HM Government, 1997) the protected status of these hedgerows as well as their significance to the landscape were determined. Note that in addition to these criteria, Suffolk Council also regard hedgerows with over 200 bat passes as “*important hedgerows*” where the main criteria of being older than 30 years is also met⁴. Table 1.5 below contains the results of these condition assessments

⁴ Suffolk Council personal correspondence / statutory consultee response.

and **Application Document 6.4.2.2.A.1 Suffolk Phase 1 Survey Results** shows the location of the hedgerows.

Table 1.5 Hedgerow assessment results

Parcel	Hedgerow ID	Hedgerow type (Phase 1 Habitat Description)	Description
468a	Hedge 1	J2.1.2 - Intact hedge - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 4 scoring woody species by section including common hawthorn, European ash, blackthorn, Field maple. Ground flora included cuckoo-pint (<i>Arum maculatum</i>).
424	Hedge 2	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 3-4 scoring woody species by section including English oak, European crab apple (<i>Malus sylvestris</i>), blackthorn, and field maple. Ground flora included cuckoo-pint, false broome (<i>Brachypodium sylvaticum</i>) and dog's mercury (<i>Mercurialis perennis</i>).
91	Hedge 3	J2.3.1 - Hedge with trees - native species-rich	Hedgerow is > 30 years old and includes four key features and is therefore classified as an important hedgerow . Hedgerow averaged 5+ scoring woody species by section including common hazel, English oak, blackthorn, elm, goat willow (<i>Salix caprea</i>) and field maple. Ground flora included false broome, English bluebell and dog's mercury.
91	Hedge 4	J2.3.1 - Hedge with trees - native species-rich	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 5+ scoring woody species by section including field maple, common dogwood, blackthorn, and English oak. Ground flora included cuckoo-pint.
91	Hedge 5	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old and includes 4 key features and is therefore classified as an important hedgerow . Hedgerow averaged 5 scoring woody species by section including field maple,

Parcel	Hedgerow ID	Hedgerow type (Phase 1 Habitat Description)	Description
			common hawthorn, blackthorn, English oak, and elm. Ground flora included false broome, English bluebell and dog's mercury.
91	Hedge 6	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 4 scoring woody species by section including field maple, common hawthorn, European ash and blackthorn. Ground flora included cuckoo-pint.
91	Hedge 7	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 4 scoring woody species by section including field maple, common hazel, common hawthorn, blackthorn. Ground flora included cuckoo-pint, false broome, wood spurge (<i>euphorbia amygdaloides</i>), dog's mercury and primrose (<i>Primula vulgaris</i>).
91	Hedge 8	J2.3.1 - Hedge with trees - native species-rich	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 5 scoring woody species by section including field maple, common hazel, common hawthorn and blackthorn. Ground flora included cuckoo-pint, false broome, dog's mercury, and cowslip (<i>Primula elatior</i>).
91e	Hedge 9	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 5 scoring woody species by section including field maple, common hawthorn, blackthorn, and elm. Ground flora included cuckoo-pint, false broome, and dog's mercury.
91e	Hedge 10	J2.3.1 - Hedge with trees - native species-rich	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow.

Parcel	Hedgerow ID	Hedgerow type (Phase 1 Habitat Description)	Description
			Hedgerow averaged 4 scoring woody species by section including field maple, common hawthorn, European ash, English oak. Ground flora included cuckoo-pint, false broome, English bluebell, dog's mercury, and cowslip.
422	Hedge 11	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 3 scoring woody species by section including field maple and common hawthorn. Ground flora included false broome and dog's mercury.
89	Hedge 12	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features. More than 200 bat passes and more than 5 passes by barbastelle bats were recorded in a single evening and it is therefore classified as an important hedgerow. Hedgerow averaged 5 scoring woody species by section including field maple, common hawthorn, European ash, blackthorn, and elm. Ground flora included cuckoo-pint. and dog's mercury.
89	Hedge 13	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 5.5 scoring woody species by section including field maple, common hawthorn, common hazel , European ash, blackthorn, and English oak. Ground flora included cuckoo-pint, and dog's mercury.
13c	Hedge 14	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 7 scoring woody species by section including field maple, common hawthorn, European ash , European crab apple, blackthorn, and English oak. Ground flora included cuckoo-pint and herb robert (<i>Geranium robertianum</i>).

Parcel	Hedgerow ID	Hedgerow type (Phase 1 Habitat Description)	Description
13c	Hedge 15	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 4.5 scoring woody species by section including field maple, common hawthorn, European ash, European crab apple, blackthorn, and English oak. Ground flora included cuckoo-pin. and herb robert.
13	Hedge 16	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 3 scoring woody species by section including field maple and blackthorn. Ground flora included cuckoo-pint, false broome and dog's mercury.
28a	Hedge 17	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 4 scoring woody species by section including common hawthorn, blackthorn, and English oak. Ground flora included cuckoo-pint, herb robert, Primrose, and common dog violet (<i>viola riviniana</i>).
13	Hedge 18	J2.1.2 - Intact hedge - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 3.5 scoring woody species by section including field maple, common dogwood, common hawthorn, and blackthorn. Ground flora included cuckoo-pint, false broome and dog's mercury.
13	Hedge 19	J2.3.2 - Hedge with trees - species-poor	Newly planted hedgerow is < 30 years old is therefore not an important hedgerow. Hedgerow averaged 6 scoring woody species by section including field maple, common hawthorn, holly (<i>Ilex aquifolium</i>), blackthorn and elm. Ground flora included cuckoo-pint and English bluebell.
13	Hedge 20	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed

Parcel	Hedgerow ID	Hedgerow type (Phase 1 Habitat Description)	Description
			features and is therefore not an important hedgerow. Hedgerow averaged 4 scoring woody species by section including European ash, blackthorn, English oak and elm. Ground flora included cuckoo-pint, English bluebell, and wood speedwell (<i>Veronica montana</i>).
2	Hedge 21	J2.1.2 - Intact hedge - species-poor	Hedgerow is < 30 years old is therefore not an important hedgerow. Hedgerow averaged 2 scoring woody species by section including common hawthorn, and blackthorn. No significant ground flora was recorded.
4	Hedge 22	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have sufficient other features and is therefore not an important hedgerow. Hedgerow averaged 2 scoring woody species by section including blackthorn and English oak. Ground flora included cuckoo-pint.
13	Hedge 23	J2.2.2 - Defunct hedge - species-poor (previous)	Newly planted hedgerow is < 30 years. More than 200 bat passes and more than 5 passes by barbastelle bats were recorded in a single evening and it is therefore classified as an important hedgerow . Hedgerow averaged 4 scoring woody species by section including field maple, common hazel, common hawthorn, and elm. No significant ground flora was recorded.
3a	Hedge 24	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old, runs alongside a PRow and includes 2 other listed features and is therefore classified as an important hedgerow . Hedgerow averaged 4 scoring woody species by section including field maple, common hazel, common hawthorn, European ash, blackthorn and English oak. Ground flora included English bluebell.
1/3a	Hedge 25	J2.3.1 - Hedge with trees - native species-rich	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 5+ scoring woody species by section including field maple, common hazel, common hawthorn,

Parcel	Hedgerow ID	Hedgerow type (Phase 1 Habitat Description)	Description
			European ash, blackthorn, English oak, and elm. Ground flora included cuckoo-pint and English bluebell.
1/3a	Hedge 26	J2.3.1 - Hedge with trees - native species-rich	Hedgerow is > 30 years old and includes 3 listed features and is therefore classified as an important hedgerow . Hedgerow averaged 6 scoring woody species by section including field maple, common hazel, European crab apple, blackthorn, and elm. Ground flora included cuckoo-pint.
89	Hedge 27	J2.1.2 - Intact hedge - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 7 scoring woody species by section including field maple, common hawthorn, spindle, blackthorn, elm and elder. Ground flora included cuckoo-pint.
1/89b	Hedge 28	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 4.5 scoring woody species by section including field maple, common hawthorn, blackthorn, English Oak and elm (<i>Ulmus spp.</i>). Ground flora included cuckoo-pint.
1/89	Hedge 29	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 4+ scoring woody species by section including field maple, common hawthorn, blackthorn, English Oak and Elm. Ground flora included cuckoo-pint.
1	Hedge 30	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 3 scoring woody species by section including field maple, blackthorn and Elm. Ground flora included cuckoo-pint.
3	Hedge 31	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old, runs alongside a PRoW and includes 2 listed

Parcel	Hedgerow ID	Hedgerow type (Phase 1 Habitat Description)	Description
			features and is therefore classified as an important hedgerow . Hedgerow averaged 5.5 scoring woody species by section including field maple, blackthorn and elm. Ground flora included cuckoo-pint.
152	Hedge 32	J2.1.2 - Intact hedge - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 1 scoring woody species by section including common gorse (<i>Ulex europaeus</i>). No significant ground flora was recorded. Hedgerow mainly lilac managed as a hedge.
152	Hedge 33	J2.2.2 - Defunct hedge - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 2 scoring woody species by section including common hawthorn and Elder (<i>Sambucus nigra</i>). No significant ground flora was recorded.
152	Hedge 34	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 3 scoring woody species by section including common hawthorn, elm and Elder. No significant ground flora was recorded.
137	Hedge 35	J2.1.2 - Intact hedge - species-poor	Recently planted hedgerow is < 30 years. More than 200 bat passes and more than 5 passes by barbastelle bats were recorded in a single evening and is therefore classified as an important hedgerow . Hedgerow averaged 2.5 scoring woody species by section including common hawthorn, sweet cherry and blackthorn. Ground flora included English bluebell.
137	Hedge 36	J2.1.2 - Intact hedge - species-poor	Recently planted hedgerow is < 30 years and is therefore not an important hedgerow. Hedgerow averaged 2 scoring woody species by section including field maple, common hawthorn, European ash. No significant ground flora was recorded.

Parcel	Hedgerow ID	Hedgerow type (Phase 1 Habitat Description)	Description
58	Hedge 37	J2.1.1 - Intact hedge - native species-rich	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not protected. Hedgerow averaged 6 scoring woody species by section including field maple, common hazel, dog wood, common hawthorn, blackthorn, willow and elm. Ground flora included cuckoo-pint.
58	Hedge 38	J2.2.2 - Defunct hedge - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 3.5 scoring woody species by section including field maple, common hazel, common hawthorn, blackthorn, and elm. No significant ground flora was recorded.
58	Hedge 39	J2.3.1 - Hedge with trees - native species-rich	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 5+ scoring woody species by section including field maple, black alder (<i>Alnus glutinosa</i>), common hawthorn, sweet cherry, blackthorn, and elm. No significant ground flora was recorded.
58	Hedge 40	J2.3.1 - Hedge with trees - native species-rich	Hedgerow is > 30 years old, runs alongside a PRoW and includes 3 listed features and is therefore classified as an important hedgerow . Hedgerow averaged 5 scoring woody species by section including field maple, hazel, common hawthorn, blackthorn, Englis oak, elder. Ground flora included English bluebell.
58	Hedge 41	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 2+ scoring woody species by section including field maple, common hawthorn, English Oak. Ground flora included English bluebell.
58	Hedge 42	J2.2.2 - Defunct hedge - species-poor	Newly planted hedgerow is < 30 years and is therefore not an important hedgerow. Hedgerow averaged 5 scoring woody species by section including field maple,

Parcel	Hedgerow ID	Hedgerow type (Phase 1 Habitat Description)	Description
			common hazel, common hawthorn, blackthorn, elder. No significant ground flora was recorded.
58	Hedge 43	J2.2.2 - Defunct hedge - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 3 scoring woody species by section including field maple, European ash, and elm. Ground flora included English bluebell.
58	Hedge 44	J2.2.2 - Defunct hedge - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 2 scoring woody species by section including common hawthorn and blackthorn. No significant ground flora was recorded.
58	Hedge 45	J2.2.2 - Defunct hedge - species-poor	Defunct hedge with gaps replanted therefore hedgerow is < 30 years old and is therefore not an important hedgerow. Hedgerow averaged 5 scoring woody species by section including field maple, common dogwood, common hawthorn, blackthorn, and English oak. Ground flora included English bluebell.
58	Hedge 46	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed. More than 200 bat passes and more than 5 passes by barbastelle bats were recorded in a single evening and it is therefore classified as an important hedgerow . Hedgerow averaged 2+ scoring woody species by section including field maple, common hawthorn, and blackthorn. Ground flora included English bluebell.
58	Hedge 47	J2.3.2 - Hedge with trees - species-poor (defunct)	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Large gaps in hedgerow filled with ruderal vegetation. Hedgerow averaged 5 scoring woody species by section including common hazel, common hawthorn, blackthorn, English oak, and elder. No significant ground flora was recorded.

Parcel	Hedgerow ID	Hedgerow type (Phase 1 Habitat Description)	Description
58	Hedge 48	J2.3.2 - Hedge with trees - species-poor	<p>Hedgerow is > 30 years old but does not have a significant number of other listed features. More than 200 bat passes were recorded in a single evening and it is therefore classified as an important hedgerow.</p> <p>Hedgerow averaged 3+ scoring woody species by section including field maple, common hawthorn, English oak, elm and elder.</p> <p>Nesting Linnet were recorded in the hedgerow.</p> <p>No significant ground flora was recorded.</p>
25	Hedge 49	J2.3.2 - Hedge with trees - species-poor	<p>Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow.</p> <p>Hedgerow averaged 4 scoring woody species by section including common hawthorn, blackthorn, English oak and elder.</p> <p>No significant ground flora was recorded.</p>
25	Hedge 50	J2.1.2 - Intact hedge - species-poor	<p>This recently planting in this hedgerow is less than 30 years old and is therefore not an important hedgerow.</p> <p>Hedgerow averaged 2 scoring woody species by section including field maple and common hawthorn.</p> <p>No significant ground flora was recorded.</p>
25	Hedge 51	J2.1.2 - Intact hedge - species-poor	<p>This recently planting in this hedgerow is less than 30 years old and is therefore not an important hedgerow.</p> <p>Hedgerow averaged 5 scoring woody species by section including field maple, common hazel, common hawthorn, holly, and blackthorn.</p> <p>No significant ground flora was recorded.</p>
	Hedge 52	J2.1.2 - Intact hedge - species-poor	<p>Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow.</p> <p>Hedgerow averaged 3+ scoring woody species, field maple, hazel, holly and willow.</p> <p>No significant ground flora was recorded.</p>
	Hedge 53	J2.3.2 - Hedge with trees - species-poor	<p>Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow.</p>

Parcel	Hedgerow ID	Hedgerow type (Phase 1 Habitat Description)	Description
25			Hedgerow averaged 3 scoring woody species, field maple, hazel and common hawthorn. No significant ground flora was recorded.
	Hedge 54	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 4 scoring woody species by section including common hazel, common hawthorn, and blackthorn. Ground flora included cuckoo-pint.
	Hedge 55	J2.3.2 - Hedge with trees - species-poor (Defunct)	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 4 scoring woody species by section including ash, dog wood, common hawthorn, and elm. Ground flora included cuckoo-pint.
28	Hedge 56	J2.2.2 - Defunct hedge - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 2+ scoring woody species by section including common hawthorn, and elm. No significant ground flora was recorded. Nesting Linnet were recorded in the hedgerow and is therefore classified as an important hedgerow.
89	Hedge 60	J2.3.2 - Hedge with trees - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 5 scoring woody species by section including field maple, common dogwood, common hawthorn, and elm. Ground flora included cuckoo-pint, and dog's mercury.
468	Hedge 61	J2.3.1 - Hedge with trees - native species-rich	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not an important hedgerow. Hedgerow averaged 3+ scoring woody species by section including ash, English elm, hawthorn, hazel, English oak, holly and hornbeam. No significant ground flora was recorded.

Parcel	Hedgerow ID	Hedgerow type (Phase 1 Habitat Description)	Description
468	Hedge 62	J2.1.1 - Intact hedge - native species-rich	Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not protected. Hedgerow averaged 5+ scoring woody species by section including ash, blackthorn, elm, hawthorn, hazel, English oak, hornbeam and wayfaring tree. No significant ground flora was recorded.
28	Hedge 63	J2.1.2 - Intact hedge - species-poor	Hedgerow is > 30 years old but does not have a significant number of other listed feature. Hedgerow was mainly elm. No significant ground flora was recorded. Nesting Linnet were recorded in the hedgerow and is therefore classified as an important hedgerow.

- 1.4.58 Table 1.6 summarises the important hedgerows within the Suffolk Onshore Scheme Order Limits. It provides the reasons for a hedge being classified as an important hedgerow.
- 1.4.59 It should be noted that there will be no impact to important hedgerows in the areas where HDD will be used.

Table 1.6 Important hedgerow summary

ID	Reason for classification as an Important Hedgerow	Within Cable LoD?
Hedge 3	Hedgerow is > 30 years old, contains 5+ woody species and includes 4 key ecological features: <ul style="list-style-type: none"> • Ditch for > 50% of length. • Gaps of < 10% of hedgerow. • 6 standard trees. • Connection score 4. 	N
Hedge 5	Hedgerow is > 30 years old, contains 5 woody species and includes 4 key ecological features: <ul style="list-style-type: none"> • Ditch > 50% of length. • Gaps of < 10% of hedgerow. • 3 standard trees. • Connection score 4. 	N
Hedge 12	More than 200 bat passes, and more than 5 passes by Barbastelle bats were recorded in a	Y

ID	Reason for classification as an Important Hedgerow	Within Cable LoD?
	single evening.	
Hedge 23	More than 200 bat passes, and more than 5 passes by Barbastelle bats were recorded in a single evening. (Note that this hedgerow is < 30 years old).	N
Hedge 26	Hedgerow is > 30 years old, contains 6 woody species and includes 3 key ecological features: <ul style="list-style-type: none"> • Ditch > 50% of length. • Gaps of < 10% of hedgerow. • 14 standard trees. 	N
Hedge 31	Hedgerow is > 30 years old, contains more than 5 woody species, runs alongside a PRow and includes 3 other key ecological features. <ul style="list-style-type: none"> • Ditch > 50% of length. • Gaps of < 10% of hedgerow. • 15 standard trees. 	Y
Hedge 35	More than 200 bat passes, and more than 5 passes by Barbastelle bats were recorded in a single evening. (Note that this hedgerow is < 30 years old).	Y
Hedge 40	Hedgerow is > 30 years old, contains more than 5 woody species, runs alongside a PRow and includes 3 other key ecological features: <ul style="list-style-type: none"> • Bank > 50% of length. • Gaps of < 10% of hedgerow. • Parallel hedge within 15 m. 	Y
Hedge 48	More than 200 bat passes, and more than 5 passes by Barbastelle bats were recorded in a single evening.	Y
Hedge 56	More than 200 bat passes, and more than 5 passes by Barbastelle bats were recorded in a single evening.	Y
Hedge 63	Nesting linnet (red list) detected in breeding bird survey.	Y

1.4.60 Pictures of these important hedgerows are provided below in Plate 1.15 to Plate 1.25.



Plate 1.15 Hedge 3



Plate 1.16 Hedge 5



Plate 1.17 Hedge 12



Plate 1.18 Hedge 23



Plate 1.19 Hedge 24



Plate 1.20 Hedge 26



Plate 1.21 Hedge 31



Plate 1.22 Hedge 35



Plate 1.23 Hedge 40



Plate 1.24 Hedge 48



Plate 1.25 Hedge 56

Arable Floral Assessment

Phase 1 assessment

- 1.4.61 A desk study and Phase 1 habitat survey were undertaken to identify any previous records of notable flora within the study area, areas within the Order Limits suitable for notable flora or any notable floral species present at the time of the Phase 1 habitat survey. This data then provided information to select areas for the arable floral assessment. The desk study data and Phase 1 habitat survey notes are provided in the section below.

Desk study

- 1.4.62 The data search returned records of one plant species; bluebell, which are listed on Schedule 8 of the Wildlife and Countryside Act (1981) as amended (HM Government, 1981). Additionally records of mossy stonecrop (*Crassula tilleae*), which is a national scarce plant, were also returned from within approximately 2 km of the Suffolk Onshore Scheme Order Limits, within the last ten years.

- 1.4.63 The closest record of mossy stonecrop was located approximately 200 m north of the Suffolk Onshore Scheme Order Limits in 2014. The closest record of bluebell was located approximately 1 km south of the Suffolk Onshore Scheme Order Limits in 2023.
- 1.4.64 A further 10 species of nationally scarce plants are present (See Annex 2.A.1) within approximately 2 km of the Suffolk Onshore Scheme Order Limits within the last ten years.

Field survey

- 1.4.65 The margins of arable fields within the Suffolk Onshore Scheme have been identified to be of good suitability for rare arable plants. Several grasslands within land, 91 and 468 have identified the presence of pyramidal (58-6, 468-1), southern marsh (468-1) and bee orchids (91-9). The shingle beach areas within the Suffolk Onshore Scheme have been identified to have nationally rare and scarce coastal plant species. Within land parcel 205, there is a large area of mossy stonecrop a nationally scarce plant.

Arable floral assessment

The margins of all accessible arable fields within the Suffolk Onshore Scheme Order Limits were subject to an initial walkover assessment for species of important arable plants. 33 arable fields, marked as AF1 to 33 as presented on **Application Document 6.4.2.2.A.6 Suffolk Arable flora**, were noted to contain instances of scarce arable flora in their margins. The results are presented in Table 1.7 Detailed arable flora results. All other accessible fields within Suffolk Onshore Scheme Order Limits were either not in cultivation (e.g., improved grassland), or had no potential or visible arable plants, (e.g., sown field margins that are not included in the method), or sprayed margins.

Table 1.7 Detailed arable flora results

Date	Land Parcel	Reference	Crop	Soil	Species, DAFOR Abundance, Score & Grid Ref (if required)	Total Score	Biodiversity Importance
28/06/2023	468	AF1	Set-aside	Sandy	<i>Filago germanica</i> (F) (6), <i>Lycopsis arvensis</i> (A) (1)	7	Site/Local
28/06/2023	468	AF2	Wheat	Sandy	<i>Geranium pusillum</i> (R) (2), <i>Lycopsis arvensis</i> (F) (1)	3	Site/Local
28/06/2023	468	AF3	Wheat	Sandy	<i>Lycopsis arvensis</i> (O) (1)	1	Site/Local
28/06/2023	137	AF4	Potato	Sandy	<i>Spergula arvensis</i> (A) (7) (c.120 plants TM44785865, TM44815890), <i>Anthriscus caucalis</i> (O) (3), <i>Papaver rhoeas</i> (O) (1)	11	District
28/06/2023	137	AF5	Beet	Sandy	<i>Spergula arvensis</i> (F) (7) (c.10 plants TM44615929), <i>Glebionis segetum</i> (R) (7) (5 plants, TM44615926), <i>Hypochaeris glabra</i> (O) (7) (20 plants TM44815919), <i>Filago germanica</i> (F) (6), <i>Lycopsis arvensis</i> (O) (1) <i>Erodium cicutarium</i> (O) (1), <i>Papaver rhoeas</i> (R) (1)	30	National
10/07/2023	58	AF6	Potato	Sandy	<i>Lycopsis arvensis</i> (R) (1), <i>Papaver rhoeas</i> (O) (1)	2	Site/Local
10/07/2023	58	AF7	Maize	Sandy	<i>Lycopsis arvensis</i> (R) (1), <i>Papaver rhoeas</i> (O) (1)	2	Site/Local
10/07/2023	58	AF8	Barley	Sandy	<i>Papaver rheos</i> (R) (1)	1	Site/Local
10/07/2023	58	AF9	Potato	Sandy	<i>Spergula arvensis</i> (O) (7) (c.15 plants TM42845981), <i>Lamium hybridum</i> (O) (1), <i>Lycopsis arvensis</i> (O) (1)	9	Site/Local

Date	Land Parcel	Reference	Crop	Soil	Species, DAFOR Abundance, Score & Grid Ref (if required)	Total Score	Biodiversity Importance
10/07/2023	58	AF10	Potato	Sandy	<i>Lycopsis arvensis</i> (O) (1), <i>Papaver rhoeas</i> (R) (1)	1	Site/Local
10/07/2023	58	AF11	Beet	Sandy	<i>Spergula arvensis</i> (O) (7) (6 plants TM43375990), <i>Papaver rhoeas</i> (O) (1)	8	Site/Local
10/07/2023	58	AF12	Carrot	Sandy	<i>Descurainia sophia</i> (R) (3), <i>Papaver rhoeas</i> (F) (1)	4	Site/Local
10/07/2023	58	AF13	Beet	Sandy	<i>Filago germanica</i> (F) (6), <i>Papaver rhoeas</i> (O) (1)	7	Site/Local
10/07/2023	58	AF14	Potato	Sandy	<i>Lycopsis arvensis</i> (O) (1), <i>Erodium cicutarium</i> (R) (1), <i>Papaver rhoeas</i> (F) (1)	3	Site/Local
10/07/2023	58	AF15	Potato	Sandy	<i>Spergula arvensis</i> (O) (7) (5 plants TM44026007), <i>Filago germanica</i> (F) (6), <i>Thlaspi arvensis</i> (R) (1)	14	District
10/07/2023	58	AF16	Barley	Sandy	<i>Spergula arvensis</i> (O) (7) (4 plants TM43945943), <i>Papaver rhoeas</i> (O) (1)	8	Site/Local
10/07/2023	58	AF17	Barley	Sandy	<i>Spergula arvensis</i> (O) (7) (c.10 plants TM44435917), <i>Glebionis segetum</i> (O) (7) (20 plants, TM44025920, TM44025914), <i>Papaver rhoeas</i> (O) (1)	15	Regional
10/07/2023	58	AF18	Onion	Sandy	<i>Spergula arvensis</i> (O) (7) (16 plants TM44405905, TM44395896, TM44335876), <i>Filago germanica</i> (O) (6)	13	District
11/07/2023	58	AF19	Carrot	Sandy	<i>Filago germanica</i> (O) (6), <i>Descurainia sophia</i> (R) (3), <i>Lycopsis arvensis</i> (R) (1), <i>Papaver rhoeas</i> (F) (1)	11	District
11/07/2023	58	AF20	Wheat	Sandy	<i>Papaver rhoeas</i> (R) (1)	1	Site/Local

Date	Land Parcel	Reference	Crop	Soil	Species, DAFOR Abundance, Score & Grid Ref (if required)	Total Score	Biodiversity Importance
11/07/2023	58	AF21	Beet	Sandy	<i>Papaver rhoeas</i> (F) (1)	1	Site/Local
11/07/2023	58	AF22	Beet	Sandy	<i>Papaver rhoeas</i> (O) (1)	1	Site/Local
11/07/2023	91	AF23	Wheat	Clay/loam	<i>Papaver rhoeas</i> (O) (1)	1	Site/Local
24/08/2023	58	AF24	Pumpkins	Sandy	<i>Papaver rhoeas</i> (O) (1)	1	Site/Local
24/08/2023	58	AF25	Peas	Sandy	<i>Spergula arvensis</i> (O) (7) (10) plants TM43105930, <i>Lamium amplexicaule</i> (R) (1), <i>Papaver rhoeas</i> (O) (1)	9	Site/Local
22/05/2024	91	AF26	Wheat	Clay/loam	<i>Alopecurus myosuroides</i> (O) (2)	2	Site/Local
22/05/2024	91	AF27	Wheat	Clay/loam	<i>Alopecurus myosuroides</i> (R) (2), <i>Geranium pusillum</i> (R) (2), <i>Papaver rhoeas</i> (O) (1)	5	Site/Local
22/05/2024	91	AF28	Wheat	Clay/loam	<i>Papaver rhoeas</i> (R) (1)	1	Site/Local
22/05/2024	28	AF29	Turf	Sandy	<i>Anthriscus caucalis</i> (O) (3), <i>Erodium cicutarium</i> (R) (1), <i>Lamium hybridum</i> (R) (1), <i>Lycopsis arvensis</i> (O) (1), <i>Spergula arvensis</i> (F) (7) (c.60 plants TM42616160, TM42756147, TM42776142),	13	District
22/05/2024	28	AF30	Turf	Sandy	<i>Erodium cicutarium</i> (R) (1), <i>Lycopsis arvensis</i> (R) (1), <i>Sherardia arvensis</i> (O) (1), <i>Spergula arvensis</i> (A) (7) (c.500 to 600 plants from TM42706134 to TM42536134, TM42496122)	10	District
22/05/2024	28	AF31	Set-aside/radish	Sandy	<i>Alopecurus myosuroides</i> (F) (2)	2	Site/Local

Date	Land Parcel	Reference	Crop	Soil	Species, DAFOR Abundance, Score & Grid Ref (if required)	Total Score	Biodiversity Importance
22/05/2024	28	AF32	Temporary grassland/Ley	Sandy	<i>Lycopsis arvensis</i> (R) (1), <i>Papaver rhoeas</i> (O) (1), <i>Sherardia arvensis</i> (R) (1), <i>Spergula arvensis</i> (O) (7) (c.50 plants from TM42146067 to TM41866054)	10	District
22/05/2024	86	AF33	Beet	Sandy	<i>Anthriscus caucalis</i> (R) (3)	3	Site/Local

Summary of Habitats by Land Parcel

1.4.66 Table 1.8 below highlights the habitats types recorded during the field survey that are within each land parcel within the Suffolk Onshore Scheme Order Limits.

Table 1.8 Habitat types summary within Order Limits by land parcel

Parcel (approximate area)	Habitat Type	Approximate Area (Ha)
1 (1.6 ha)	B6 - Poor semi-improved grassland	0.9
	J1.1 - Cultivated/disturbed land - arable	0.7
2 (3.5 ha)	B2.2 - Neutral grassland - semi-improved	0.1
	J1.1 - Cultivated/disturbed land – arable	3.3
	Z99 - Hardstanding	<0.1
3 (10.6 ha)	A1.1.1 - Broadleaved woodland - semi-natural	<0.1
	G2 - Running water	<0.1
	J1.1 - Cultivated/disturbed land - arable	10.6
4 (0.8 ha)	J1.1 - Cultivated/disturbed land - arable	6.4
	Z99 - Hardstanding	0.1
5 (1.7 ha)	J1.1 - Cultivated/disturbed land – arable	1.69
7 (8.94 ha)	A1.1.1 - Broadleaved woodland - semi-natural	0.1
	A3.1 - Broadleaved parkland/scattered trees	<0.1
	B4 - Improved grassland	0.1
	J1.1 - Cultivated/disturbed land - arable	7.5
	Z99 - Hardstanding	0.2
11 (0.3 ha)	J1.1 - Cultivated/disturbed land - arable	<0.1
	Z99 - Hardstanding	<0.1
12 (0.5 ha)	J1.1 - Cultivated/disturbed land - arable	0.5
13 (33.9 ha)	A3.1 - Broadleaved parkland/scattered trees	0.1
	G1 - Standing water	<0.1
	J1.1 - Cultivated/disturbed land - arable	33.6
	Z99 - Hardstanding	0.2

Parcel (approximate area)	Habitat Type	Approximate Area (Ha)
14 (0.2 ha)	J1.2 - Cultivated/disturbed land - amenity grassland	0.2
	Z99 – Hardstanding	<0.1
18 (0.40 ha)	A1.1.1 - Broadleaved woodland - semi-natural	0.3
	B4 - Improved grassland	1.3
20 (3.9 ha)	B2.2 - Neutral grassland - semi-improved	<0.1
	J1.1 - Cultivated/disturbed land – arable	3.6
	J1.2 - Cultivated/disturbed land - amenity grassland	<0.1
	J4 - Bare ground	0.3
25 (6.6 ha)	J1.1 - Cultivated/disturbed land – arable	6.6
	Z99 - Hardstanding	0.1
28 (15 ha)	A1.1.1 - Broadleaved woodland - semi-natural	0.1
	A2.1 - Scrub - dense/continuous	0.1
	B2.2 - Neutral grassland - semi-improved	<0.1
	G2 - Running water	<0.1
	J1.1 - Cultivated/disturbed land - arable	11.7
	J1.2 - Cultivated/disturbed land - amenity grassland	2.4
	J3.6 – Buildings	<0.1
	J4 - Bare ground	0.2
	Z99 - Hardstanding	0.5
35 (<0.01 ha)	J4 - Bare ground	<0.1
58 (16.8 ha)	A1.1.1 - Broadleaved woodland - semi-natural	0.1
	A2.2 - Scrub – scattered	<0.1
	B2.2 - Neutral grassland - semi-improved	0.7
	C3.1 - Other tall herb and fern – ruderal	0.1
	J1.1 - Cultivated/disturbed land – arable	14.8
	J1.2 - Cultivated/disturbed land - amenity grassland	2.4
	J3.6 – Buildings	<0.1
	J4 - Bare ground	0.6

Parcel (approximate area)	Habitat Type	Approximate Area (Ha)
	Z99 - Hardstanding	0.2
66 (0.6 ha)	J1.1 - Cultivated/disturbed land - arable	0.5
	Z99 – Hardstanding	0.1
67 (<0.01 ha)	B2.2 - Neutral grassland - semi-improved	<0.1
86 (1.27 ha)	A1.1.1 - Broadleaved woodland - semi-natural	0.1
	B2.2 - Neutral grassland - semi-improved	0.2
	J1.1 - Cultivated/disturbed land - arable	1.1
89 (6.5 ha)	A1.2.2 - Coniferous woodland - plantation	1.2
	A3.1 - Broadleaved parkland/scattered trees	<0.1
	B2.2 - Neutral grassland - semi-improved	<0.1
	G2 - Running water	<0.1
	J1.1 - Cultivated/disturbed land – arable	4.7
	J4 - Bare ground	0.2
	Z99 – Hardstanding	0.4
91 (21.4 ha)	A1.1.1 - Broadleaved woodland - semi-natural	2.0
	A1.1.2 - Broadleaved woodland - plantation	0.4
	A3.1 - Broadleaved parkland/scattered trees	<0.1
	B2.2 - Neutral grassland - semi-improved	2.1
	B6 - Poor semi-improved grassland	0.6
	G1 - Standing water	0.1
	J1.1 - Cultivated/disturbed land – arable	12.0
	J1.2 - Cultivated/disturbed land - amenity grassland	4.1
	J3.6 – Buildings	<0.1
	J4 - Bare ground	0.1
	Z99 – Hardstanding	0.1
137 (<0.1 ha)	A1.1.2 - Broadleaved woodland – plantation	<0.1
	B1.2 - Acid grassland - semi-improved	<0.1
152 (5.6 ha)	A1.1.2 - Broadleaved woodland – plantation	<0.1

Parcel (approximate area)	Habitat Type	Approximate Area (Ha)
	A1.3.1 - Mixed woodland - semi-natural	<0.1
	A2.1 - Scrub - dense/continuous	<0.1
	A3.1 - Broadleaved parkland/scattered trees	<0.1
	A3.2 - Coniferous parkland/scattered trees	<0.1
	B1.2 - Acid grassland - semi-improved	4.5
	B6 - Poor semi-improved grassland	1.0
	J4 - Bare ground	<0.1
	Z99 – Hardstanding	<0.1
162 (0.3 ha)	A1.1.1 - Broadleaved woodland - semi-natural	<0.1
	A2.1 - Scrub - dense/continuous	0.3
	A3.2 - Coniferous parkland/scattered trees	<0.1
	B1.2 - Acid grassland - semi-improved	<0.1
	B6 - Poor semi-improved grassland	<0.1
187 (<0.01 ha)	A1.1.1 - Broadleaved woodland - semi-natural	<0.1
	B1.2 - Acid grassland - semi-improved	<0.1
	B4 - Improved grassland	<0.1
	J4 - Bare ground	<0.1
	Z99 – Hardstanding	<0.1
188 (0.1 ha)	B1.2 - Acid grassland - semi-improved	0.1
192 (0.4 ha)	A1.1.1 - Broadleaved woodland - semi-natural	<0.1
	A2.1 - Scrub - dense/continuous	<0.1
	A3.1 - Broadleaved parkland/scattered trees	<0.1
	B2.2 - Neutral grassland - semi-improved	0.1
	B4 - Improved grassland	<0.1
	C1.1 - Bracken - continuous	0.2
	J4 - Bare ground	<0.1
	Z99 – Hardstanding	<0.1
193 (4.4 ha)	A3.1 - Broadleaved parkland/scattered trees	0.11

Parcel (approximate area)	Habitat Type	Approximate Area (Ha)
	B1.2 - Acid grassland - semi-improved	4.2
	C1.1 - Bracken – continuous	0.1
	Z99 – Hardstanding	<0.1
205 (13.8 ha)	A1.1.1 - Broadleaved woodland - semi-natural	<0.1
	A2.1 - Scrub - dense/continuous	0.3
	A3.2 - Coniferous parkland/scattered trees	0.1
	B1.2 - Acid grassland - semi-improved	1.1
	B2.2 - Neutral grassland - semi-improved	2.4
	B5 - Marsh/marshy grassland	6.5
	C3.1 - Other tall herb and fern – ruderal	0.1
	F1 - Swamp	0.8
	G1 - Standing water	2.2
	J4 - Bare ground	0.3
212 (2.1 ha)	A2.1 - Scrub - dense/continuous	1.5
	F1 - Swamp	0.2
	H8.4 - Coastal grassland	0.3
	J3.6 - Buildings	<0.1
	J4 - Bare ground	<0.1
214 (4.3 ha)	A2.1 - Scrub - dense/continuous	0.1
	H1.1 - Intertidal - mud/sand	0.4
	H3 - Shingle above high tide mark	3.0
	H6.5 - Dune grassland	0.2
	0.06	0.3
	H8.4 - Coastal grassland	0.3
	J4 - Bare ground	0.3
215 (0.2 ha)	H1.1 - Intertidal - mud/sand	0.2
421 (30.2 ha)	A1.1.1 - Broadleaved woodland - semi-natural	<0.1
	A1.1.2 - Broadleaved woodland – plantation	<0.1

Parcel (approximate area)	Habitat Type	Approximate Area (Ha)
	B2.2 - Neutral grassland - semi-improved	0.5
	B6 - Poor semi-improved grassland	<0.1
	G1 - Standing water	<0.1
	J1.1 - Cultivated/disturbed land – arable	30.0
	J4 - Bare ground	<0.1
	Z99 - Hardstanding	0.7
212 (2.1 ha)	A2.1 - Scrub - dense/continuous	1.5
	F1 - Swamp	0.2
	H8.4 - Coastal grassland	0.3
	J3.6 – Buildings	<0.1
	J4 - Bare ground	<0.1
214 (4.3 ha)	A2.1 - Scrub - dense/continuous	0.1
	H1.1 - Intertidal - mud/sand	0.4
	H3 - Shingle above high tide mark	3.0
	H6.5 - Dune grassland	0.2
	0.06	0.3
	H8.4 - Coastal grassland	0.3
	J4 - Bare ground	0.3
215 (0.2 ha)	H1.1 - Intertidal - mud/sand	0.2
421 (30.2 ha)	A1.1.1 - Broadleaved woodland - semi-natural	<0.1
	A1.1.2 - Broadleaved woodland – plantation	<0.1
	B2.2 - Neutral grassland - semi-improved	0.5
	B6 - Poor semi-improved grassland	<0.1
	G1 - Standing water	<0.1
	J1.1 - Cultivated/disturbed land – arable	28.9
	J4 - Bare ground	<0.1
	Z99 - Hardstanding	0.7
422 (20.1 ha)	B2.2 - Neutral grassland - semi-improved	<0.1



Parcel (approximate area)	Habitat Type	Approximate Area (Ha)
	J1.2 - Cultivated/disturbed land - amenity grassland	<0.1
	J1.1 - Cultivated/disturbed land - arable	20.1
423 (<0.1 ha)	J1.1 - Cultivated/disturbed land – arable	<0.1
424 (<0.1 ha)	B2.2 - Neutral grassland - semi-improved	<0.1
467 (0.3 ha)	B4 - Improved grassland	0.2
	J4 - Bare ground	0.1
	Z99 – Hardstanding	<0.1
468 (27.3 ha)	A1.1.1 - Broadleaved woodland - semi-natural	1.3
	A1.1.2 - Broadleaved woodland - plantation	4.6
	A2.1 - Scrub - dense/continuous	0.1
	B2.2 - Neutral grassland - semi-improved	3.6
	G2 - Running water	0.2
	J1.1 - Cultivated/disturbed land - arable	17.1
	J2.6 - Dry ditch	0.1
	Z99 - Hardstanding	0.3
516 (0.1 ha)	A2.1 - Scrub - dense/continuous	0.1
	B5 - Marsh/marshy grassland	<0.1
	F1 – Swamp	<0.1
	G1 - Standing water	0.1
	J3.6 – Buildings	<0.1
623 (<0.1 ha)	A1.1.1 - Broadleaved woodland - semi-natural	<0.1
	J1.2 - Cultivated/disturbed land - amenity grassland	<0.1
625 (<0.1 ha)	B2.2 - Neutral grassland - semi-improved	<0.1
626 (5.4 ha)	A1.1.1 - Broadleaved woodland - semi-natural	<0.1
	A3.1 - Broadleaved parkland/scattered trees	0.4
	B2.2 - Neutral grassland - semi-improved	<0.1
	J1.1 - Cultivated/disturbed land – arable	<0.1
	J3.6 – Buildings	<0.1

Parcel (approximate area)	Habitat Type	Approximate Area (Ha)
	Z99 - Hardstanding	0.2
Mitigation Area – South of Parcel 66 (8.8 ha)	A1.1.1 - Broadleaved woodland - semi-natural	3.9
	B1.2 - Acid grassland - semi-improved	3.8
	A1.3.1 - Mixed woodland - semi-natural	0.5
	G2 - Running water	<0.1
	B5 - Marsh/marshy grassland	0.4
	A2.1 - Scrub - dense/continuous	0.2


Target Notes


- 1.4.67 Target notes to highlight specific habitat and species features are provided in Table 1.9 and shown in **Application Document 6.4.2.2.A.3 Suffolk Target Notes**.


Table 1.9 Target notes


Target Note ID	Parcel ID	Description	Photograph
468-1	468	Section of the River Fromus with adjacent cricket bat willow (<i>Salix alba</i> 'Caerulea'), willow (<i>Salix sp.</i>), scrub, tall herbs and mature oak trees to the east. Himalayan balsam (<i>Impatiens glandulifera</i>) along river. Adjacent semi-improved grassland with moderate species diversity including some pyramidal orchids (<i>Anacamptis pyramidalis</i>) and southern marsh orchids (<i>Dactylorhiza praetermissa</i>).	
422-1	422	Mammal run	No picture
422-2	422	Farm buildings with roost features suitable for bats and barn owl, full roost assessment recommended.	

Target Note ID	Parcel ID	Description	Photograph
422-3	Woodland south of 422	Mammal run, likely deer, dry ditch along field boundary.	
422-4	Woodland south of 422	Mature broad-leaved woodland dominated by ash, oak and field maple, hazel dormouse record (National Biodiversity Network Atlas; (National Biodiversity Network Trust, 2024), possibly using hedge to north within Suffolk Onshore Scheme Order Limits, likely bat roosts and an important bat commuting route north-south along hedge in Suffolk Onshore Order Limits.	No picture



Target Note ID	Parcel ID	Description	Photograph
422-5	Woodland south of 422	Ash with multiple woodpecker holes, high bat roost potential.	



Target Note ID	Parcel ID	Description	Photograph
422-5	Woodland south of 422	Standing deadwood with hollow trunk, high bat roost potential.	


Target Note ID	Parcel ID	Description	Photograph
422-6	422	Grass field margin similar to before, half mown half long, false oat grass (<i>Arrhenatherum elatius</i>), perennial ryegrass (<i>Lolium perenne</i>), Yorkshire fog (<i>Holcus lanatus</i>), hogweed (<i>Heracleum sphondylium</i>), redshank (<i>Persicaria maculosa</i>), common nettle, meadow buttercup (<i>Ranunculus acris</i>), common bent (<i>Agrostis capillaris</i>).	

Target Note ID	Parcel ID	Description	Photograph
422-7	Woodland	Dry ditch in woodland south of 422	





Target Note ID	Parcel ID	Description	Photograph
421-1	421	G3c field margin approximately 5 m wide, dominated by rye grass, with cut-leaved cranesbill (<i>Geranium dissectum</i>) locally dominant.	
■■■■	■■■■	Disused badger set entrance	No photograph


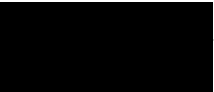

Target Note ID	Parcel ID	Description	Photograph
421-3	421	Standing deadwood, low bat roost potential with some cracks and small cavities.	
421-4	421	Established 5 m wide semi-improved grass strip, scattered scrub and plantation. Suitable for reptiles.	No picture
421-5	421	Grassland strip with scattered scrub, bare ground, and tall ruderals.	



Target Note ID	Parcel ID	Description	Photograph
421-6	421/91	Pond in woodland suitable for great crested newt, with macrophytes visible; reedmace (<i>Typha latifolia</i>) and duckweed (<i>Lemna species</i>).	
421-7	421/91	Defunct gappy hedge, short section. Mostly dog rose and field maple. Dry ditch at base	

Target Note ID	Parcel ID	Description	Photograph
421-8	421/91	Deadwood hibernacula	



Target Note ID	Parcel ID	Description	Photograph
421-9	421/91	Trac, neutral grassland with lots of bare ground	



Target Note ID	Parcel ID	Description	Photograph
91-1	91	Two ash trees in hedge with features, knot holes and lifted bark, high bat roost potential	
91-2	91	Young plantation woodland, mostly oak west of pond.	
		Large mammal run, likely badger.	[Photo removed]


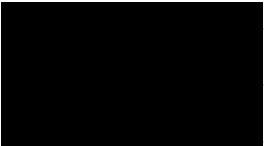

Target Note ID	Parcel ID	Description	Photograph
91-4	91	Ash tree with high bat roost potential. At least four knotholes or woodpecker holes.	
		Snuffle holes.	Photo removed
91-8	91	Brash area - trees thinned. Unsuitable for dormice.	




Target Note ID	Parcel ID	Description	Photograph
91-9	91	Bee orchids (<i>Ophrys apifera</i>) in grassland.	
91-10	91	Arable margin dominated by creeping buttercup (<i>Ranunculus repens</i>), common bent, perennial ryegrass.	

Target Note ID	Parcel ID	Description	Photograph
91-11	91	Neutral grass margin 5 m species same as 91-10 and ditch.	
91-12	91	Log piles suitable hibernacula reptiles and amphibians.	
89-1	89	Balancing pond seen from a distance and on aerial, not inspected as no access. Adjacent to the Suffolk Onshore Scheme Order Limits.	No picture
		Badger prints - recorded in March 2021.	[Photo removed]




Target Note ID	Parcel ID	Description	Photograph
3-1	3	Very large veteran oak along hedge with 'High' bat roost potential (no access).	
		Badger a scrape and path.	[Photo removed]
58-2	58	One ash tree with low bat roost potential, deep cracks in bark. Two ash trees with high bat roost potential, standing deadwood with large cavities, lifted bark and knotholes. One oak with low bat roost potential – some furled bark and knotholes.	



Target Note ID	Parcel ID	Description	Photograph
58-3	58	Four veteran oaks all precautionary mod bat roost potential due to dense ivy and foliage, numerous knotholes and lifted bark on all of them.	
58-4	58	Newly planted hedge.	
		Reservoir with semi-improved grass banks, and 5 m conservation margin along field which has reptile suitability. Suitable for bat foraging and there is a nearby badger sett (outside of Suffolk Onshore Scheme Order Limits).	No picture

Target Note ID	Parcel ID	Description	Photograph
58-6	58	Pyramidal orchids within neutral semi-improved grassland around the reservoir.	
		Badger latrine.	[Photo removed]
		A badger push under, also signs of deer going over the fence.	[Photo removed]
58-9	58	Veteran oak with moderate bat roost potential.	No picture
58-10	58	Two oaks and two ash with ivy and cracked, lifted bark all with moderate bat roost potential.	

Target Note ID	Parcel ID	Description	Photograph
58-11	58	Two Scot's pine, one beech and one ash tree. No bat roost features seen but the trees are mature specimens.	
58-12	58	Three veteran ash trees all with high bat roost potential. Features include woodpecker holes and splits in bark, with deadwood cavities.	
137-1	137	Semi-improved grassland, scattered scrub and poplar plantation to the north suitable for reptiles/bats. Border between land parcels 137 and 152.	No picture
137-2	137	Lake (not surveyed) with great crested newt potential.	No picture
137-3	137	Young planted hedgerow and poplar. Hedgerow single tree and fairly recent, there are some areas of older hedgerow trees, but this can be sporadic.	

Target Note ID	Parcel ID	Description	Photograph
152-2	152	Owl box within broadleaved woodland north of Aldeburgh golf course.	
152-3	152	Owl box behind hedgerow bisecting acid grassland.	
152-5	152/137	Non-native species buddleia within hedgerow bordering the Suffolk Onshore Scheme Order Limits.	

Target Note ID	Parcel ID	Description	Photograph
152-6	152	Owl box within broadleaved woodland north of the gold course.	
162-1	162	An area of semi-improved acid grassland including common bent (<i>Agrostis capillaris</i>), red fescue (<i>Festuca rubra</i> agg.), cock's-foot (<i>Dactylis glomerata</i>), yarrow (<i>Achillea millefolium</i>) and bugloss (<i>Lycopsis arvensis</i>) with dense gorse and bramble scrub, broad-leaved and coniferous trees. Suitable for reptiles. One mature false acacia (<i>Robinia pseudoacacia</i>) in the centre of Suffolk Onshore Scheme with high bat roost suitability.	
193-1	193	Disused tower/lookout building with signs of barn owl roost.	

Target Note ID	Parcel ID	Description	Photograph
188-1	188	Acid grassland and scattered gorse (<i>Ulex europaeus</i>) scrub suitable for reptiles. Large area of semi-improved acid grassland. Some rabbit grazing. Species include common bent (<i>Agrostis capillaris</i>), early hair-grass (<i>Aira praecox</i>), sweet vernal-grass (<i>Anthoxanthum odoratum</i>), Yorkshire fog (<i>Holcus lanatus</i>), common cat's-ear (<i>Hypochaeris radicata</i>), smooth cat's-ear (<i>Hypochaeris glabra</i>), ribwort plantain (<i>Plantago lanceolata</i>), sheep's sorrel (<i>Rumex acetosella</i>), broom (<i>Cytisus scoparius</i>), common stork's-bill (<i>Erodium cicutarium</i>), smooth hawk's-beard (<i>Crepis capillaris</i>), bastard toadflax (<i>Rapistrum rugosum</i>), sand sedge (<i>Carex arenaria</i>), common fiddleneck (<i>Amsinckia micrantha</i>), lesser swine-cress (<i>Lepidium didymum</i>) and tree lupin (<i>Lupinus arboreus</i>). Some small stands of dense common gorse (<i>Ulex europaeus</i>) scrub.	
192-1	192	Tall and short grassland, bracken and scrub on banks alongside path, suitable for reptiles, common lizard seen here.	

Target Note ID	Parcel ID	Description	Photograph
192-2	192/205	Line of mature Corsican pine (<i>Pinus nigra subsp. laricio</i>), suitable for bats and nesting birds. Ground flora with acid grassland and bracken suitable for reptiles.	
205-1	205	Acid grassland and scattered bracken and occasional common broom (<i>Cytisus scoparius</i>). Suitable for reptiles.	
205-2	205	Reedbed, with a bittern seen here. To the north and south grazing marsh, network of drains, fringed by reed, open water, gulls and wildfowl present, including white-fronted goose, pintail, teal, wigeon, lesser and greater black-back gull, black-headed gull. Suitable for reptiles.	

Target Note ID	Parcel ID	Description	Photograph
205-3	205b	Short perennial/ephemeral vegetation in carpark surrounded by dense scrub. Large area of Nationally Scarce Mossy stonecrop (<i>Crassula tillaea</i>) present. Potential for other rare/scarce species. Grassland and scrub habitats present to the south. Dartford warbler in scrub to the south. Reptile suitability.	
205-4	205a	Disused building, overgrown with scrub and inaccessible. Numerous slipped tiles, open windows, loft area. High bat roost suitability, no access closer to assess.	
214-1	214	Various important coastal/shingle vegetation communities, dune heath, coastal grassland, strandline, shingle with notable plants species. Species include sea sandwort (<i>Honckenya peploides</i>), sea bindweed (<i>Calystegia soldanella</i>), yellow-horned poppy (<i>Glaucium flavum</i>), sea pea (<i>Lathyrus japonicus</i>), sea campion (<i>Silene uniflora</i>), common restharrow (<i>Ononis repens</i>), mouse-ear hawkweed (<i>Pilosella officinarum</i>), biting stonecrop (<i>Sedum acre</i>), curled dock (<i>Rumex crispus</i>), false oat grass (<i>Arrhenatherum elatius</i>), crested hair-grass (<i>Koeleria macrantha</i>), sea beet (<i>Beta vulgaris subsp. maritima</i>), sea kale (<i>Crambe maritima</i>), bittersweet (<i>Solanum dulcamara</i>), sheep's sorrel (<i>Rumex</i>	

Target Note ID	Parcel ID	Description	Photograph
		<p><i>acetosella</i>), annual meadow-grass (<i>Poa annua</i>), yarrow (<i>Achillea millefolium</i>), lesser hawkbit (<i>Leontodon saxatilis</i>), Buck's-horn plantain (<i>Plantago coronopus</i>), sea fern grass (<i>Catapodium maritimum</i>), Inland closer to the road taller grassland with sea holly (<i>Eryngium maritimum</i>), crow garlic (<i>Allium vineale</i>), bird's-foot tre-foil (<i>Lotus corniculatus</i>), lady's bedstraw (<i>Galium verum</i>), Yorkshire fog (<i>Holcus lanatus</i>), red fescue (<i>Festuca rubra</i>). Lower plants are frequent with bryophytes including rough-stalked feather-moss (<i>Brachythecium rutabulum</i>), neat feather-moss (<i>Pseudoscleropodium purum</i>), great plait-moss (<i>Hypnum cuppressiforme var lacunosum</i>), broom forkmoss (<i>Dicranium scoparium</i>), juniper haircap (<i>Polytrichum juniperum</i>) and capillary thread-moss (<i>Ptychostomum capillare</i>) with lichens including reindeer moss (<i>Cladonia portentosa</i>). Suitable for reptiles in more permanent habitats (grassland/scrub) closer to the road.</p>	

Protected and Notable Species

Introduction

- 1.4.68 The following protected and notable species are reported separately and are not further discussed in this document:
- Bats – potential for roosting bats (**Application Document 6.3.2.2.H Appendix 2.2.H Bat Tree Survey Report**);
 - Bats – potential for foraging and commuting (**Application Document 6.3.2.2.I Appendix 2.2.I Nighttime Bat Walkover and Static Detector Survey Report**);
 - Hazel Dormouse (**Application Document 6.3.2.2.J Appendix 2.2.J Hazel Dormouse Survey Report**);
 - Birds – breeding (**Application Document 6.3.2.2.C Appendix 2.2.C Breeding Bird Survey Report**);
 - Birds – wintering (**Application Document 6.3.2.2.B Appendix 2.2.B Wintering Bird Survey Report**);
 - Reptiles (**Application Document 6.3.2.2.E Appendix 2.2.E Reptile Survey Report**);
 - Riparian mammals – otter, water vole and beaver (**Application Document 6.3.2.2.D Appendix 2.2.D Riparian Mammal Survey Report**);
 - Terrestrial invertebrates (**Application Document 6.3.2.2.G Appendix 2.2.G Terrestrial Invertebrate Survey Report**); and
 - Aquatic ecology – aquatic invertebrates, aquatic macrophytes, fish (**Application Document 6.3.2.2.F Appendix 2.2.F Aquatic Ecology Survey Report**).

Badger

Desk study

- 1.4.69 There are nine recent records of badger (*Meles meles*) within approximately 2 km of the Suffolk Onshore Scheme Order Limits. Badgers are protected under the Protection of Badgers Act 1992 (HM Government, 1992). The nearest of the records is from 2018 and is from within the Suffolk Onshore Scheme Order Limits. The desk study identified records of setts and latrines.
- 1.4.70 There is extensive suitable habitat for badger throughout the survey area, with habitat suitable for both foraging and excavation of setts and sufficient to support a number of social groups. Suitable habitats include woodlands and hedgerows, grasslands and arable margins.

Field survey

- 1.4.71 Signs of badger were present in the majority of accessible areas of the Suffolk Onshore Scheme Order Limits and inaccessible areas were also deemed to be suitable for badger based on habitats viewed via aerial mapping.

- 1.4.72 Twenty-two setts (main, outlier, active and disused) were identified during walk over surveys between 2023 and 2024. Five setts (three active and two inactive) were recorded within the Order Limits.
- 1.4.73 Setts were identified in the following land parcels:
- [REDACTED] main (outside the Order Limits) and outlier (within the order limits) setts.
 - [REDACTED], disused outlier sett inside Order Limits, active outlier sett outside of Order Limits to south, main sett outside Order Limits to east.
 - [REDACTED], active and disused main setts outside of Order Limits.
 - [REDACTED], main sett inside Order Limits to southwest.
 - [REDACTED], two disused sett outside of Order Limits, active sett within Order Limits
 - [REDACTED] outlier sett outside of Order Limits.
 - [REDACTED] main and outlier sett outside of Order Limits to the west and main set (2 entrances) to the east.
 - [REDACTED] active sett outside of Order Limits, disused outlier sett inside Order Limits.
- 1.4.74 Further signs of badger were identified and recorded including latrines, push-unders, hair and footprints.
- 1.4.75 Locations of badger signs are provided in **Application Document 6.4.2.2.A.4 Suffolk Badger Evidence Locations**. (Note that the location of badger setts is confidential).

Great crested newt

Desk study

- 1.4.76 There are ten recent records of great crested newt (*Triturus cristatus*) within the Desk Study survey area, the closest of which was within 150 m of the Suffolk Onshore Scheme Order Limits in 2020.

Field survey

- 1.4.77 There are a number of ponds and suitable terrestrial habitat located within and adjacent to the Suffolk Onshore Scheme Order Limits. Species specific surveys for this species were not completed during this walk over, surveyors always remained 2 m from water courses, during the survey, and therefore field signs of this species are limited. Where field signs are seen they are recorded in target notes, however no field signs do not constitute absence. Great crested newts have not been considered further in this document as the Proposed Project will make use of the District Licensing Scheme.

Other notable fauna

Desk study

- 1.4.78 The Suffolk Biological Records Centre returned records of four notable species; polecat (*Mustela putorius*), west European hedgehog (*Erinaceus europaeus*), common frog (*Bufo bufo*) and smooth newt (*Lissotriton vulgaris*) within 2 km of the Suffolk Onshore Scheme Order Limits within the last ten years.

- 1.4.79 The closest record for polecat was located approximately 10 m northeast of the Suffolk Onshore Scheme Order Limits in 2020, with common toad recorded approximately 50 m north in 2014 and smooth newt within the Suffolk Onshore Scheme Order Limits in 2021. West European hedgehog was identified approximately 30 m North of the Suffolk Onshore Scheme Order Limits in 2017.

Field survey

- 1.4.80 The Suffolk Onshore Scheme Order Limits is suitable for all of the notable species recorded within the desk study. Where field signs were seen they were recorded in target notes, however no field signs do not constitute absence.

Invasive non-native species

Desk study

- 1.4.81 The data search returned records of ten plant species which are listed on Schedule 9 of the Wildlife and Countryside Act (1981) (HM Government, 1981) as amended from within 2 km of the Suffolk Onshore Scheme the last years. Invasive non-native plant species and their closest records are listed below:

- Water fern (*Azolla filiculoides*) – 1.5 km north of the Suffolk Onshore Scheme in 2020;
- Giant Hogweed (*Heracleum mantegazzianum*) – 400 m south in 2018;
- Three-cornered garlic (*Allium triquetrum*) – 300 m south in 2018;
- Japanese Knotweed (*Fallopia japonica*) – 450 m north of the Suffolk Onshore Scheme Order Limits approximately within 2014;
- Himalayan Balsam (*Impatiens glandulifera*) – approximately 360 m north in 2015;
- Rhododendron (*Rhododendron ponticum*) – approximately 1.3 km north in 2017;
- Yellow Archangel (*Lamium galeobdolon subsp. Argentatum*) – approximately 500 m south in 2014;
- Japanese Rose (*Rosa rugosa*) – approximately 300 m south in 2018;
- New Zealand Pigmyweed (*Crassula helmsii*) – approximately 1.3 km north in 2017; and
- Virginia Creeper (*Parthenocissus quinquefolia*) – approximately 2 km north in 2017.

Field survey

- 1.4.82 A full invasive non-native species survey was not undertaken during this walk over survey as part of the Phase 1 habitats survey. Where invasive species were identified as part of the walk over these were recorded as target notes. Buddleia was identified within a hedgerow bordering the Suffolk Onshore Scheme Order Limits in land parcel 152 (152-5), Giant hogweed was identified at (TM461584) and Himalayan balsam was identified along the River Fromus.

References

- Byfield, A. J., & Wilson, P. J. (2005). *Important Arable Plant Areas: Identifying priority sites for arable plant conservation in the United Kingdom*. Salisbury: Plantlife International.
- Chartered Institute of Ecology and Environmental Management. (2018). *Guidelines for Ecological Impact Assessment in the UK and Ireland*. Retrieved November 19, 2024, from CIEEM Resource Hub: [h \[REDACTED\]](#)
- Cheffings, C. M., Farrell, L., Dines, T. D., Jones, R. A., Leach, S. J., McKean, D. R., . . . Taylor, I. (2005). *The Vascular Plant Red Data List for Great Britain. Species Status No. 7*. Joint Nature Conservation Committee. Retrieved November 19, 2024, from <https://hub.jncc.gov.uk/assets/cc1e96f8-b105-4dd0-bd87-4a4f60449907>
- CIEEM. (2017). *Guidelines for Preliminary Ecological Appraisal, 2nd Edition*. Winchester: CIEEM.
- Department for Environment Food and Rural Affairs. (2007). *Hedgerow Survey Handbook - A standard procedure for local surveys in the UK (2nd Edition)*. Retrieved November 19, 2024, from gov.uk: <https://assets.publishing.service.gov.uk/media/5a7589a8ed915d6faf2b3c2a/pb11951-hedgerow-survey-handbook-070314.pdf>
- Department for Environment Food and Rural Affairs. (2024). *MAGIC Map*. Retrieved November 19, 2024, from [magic.defra.gov.uk: https://magic.defra.gov.uk/magicmap.aspx](https://magic.defra.gov.uk/magicmap.aspx)
- Harris, S. C. (1989). *Surveying Badgers*. London: Mammal Society.
- Hill, M. O., Preston, C. D., & Roy, D. B. (2004). *PLANTATT: Attributes of British and Irish Plants*. Monks Wood: NERC Centre of Ecology and Hydrology. Retrieved November 19, 2024, from <https://www.brc.ac.uk/biblio/plantatt-attributes-british-and-irish-plants-spreadsheet>
- HM Government. (1981). *Wildlife and Countryside Act 1981*. Retrieved July 11, 2024, from Legislation.gov.uk: <https://www.legislation.gov.uk/ukpga/1981/69/contents>
- HM Government. (1981). *Wildlife and Countryside Act 1981*. Retrieved August 04, 2023, from legislation.gov.uk: <https://www.legislation.gov.uk/ukpga/1981/69/contents>
- HM Government. (1992). *legislation.gov.uk*. Retrieved from Protection of Badgers Act 1992: <https://www.legislation.gov.uk/ukpga/1992/51/contents>
- HM Government. (1992). *Protection of Badgers Act*. Retrieved from legislation.co.uk: <https://www.legislation.gov.uk/ukpga/1992/51/contents>
- HM Government. (1996). *Wild Mammals (Protection) Act*. Retrieved from legislation.co.uk: <https://www.legislation.gov.uk/ukpga/1996/3/contents>
- HM Government. (1997). *The Hedgerows Regulations*. Retrieved from legislation.gov.uk: <https://www.legislation.gov.uk/uksi/1997/1160/contents/made>
- HM Government. (1997). *The Hedgerows Regulations 1997*. Retrieved from legislation.gov.uk: <https://www.legislation.gov.uk/uksi/1997/1160/contents/made>
- HM Government. (2006). *Natural Environment and Rural Communities Act 2006*. Retrieved July 11, 2024, from Legislation.gov.uk: <https://www.legislation.gov.uk/ukpga/2006/16/contents>
- HM Government. (2006). *Natural Environment and Rural Communities Act 2006*. Retrieved August 04, 2023, from legislation.gov.uk: <https://www.legislation.gov.uk/ukpga/2006/16/contents>
- HM Government. (2019). *The Invasive Alien Species (Enforcement and Permitting) Order 2019*. Retrieved from legislation.gov.uk: <https://www.legislation.gov.uk/uksi/2019/527/made>
- Joint Nature Conservation Committee. (2010). *Handbook for Phase 1 habitat survey - a technique for environmental audit (Revised Edition, 2016)*. Retrieved November 19, 2024, from jncc.gov.uk: <https://hub.jncc.gov.uk/assets/9578d07b-e018-4c66-9c1b-47110f14df2a>
- Joint Nature Conservation Committee. (2023). *Conservation Designations for UK Taxa*. Retrieved November 19, 2024, from jncc.gov.uk: <https://hub.jncc.gov.uk/assets/478f7160-967b-4366-acdf-8941fd33850b>
- National Biodiversity Network Trust. (2024). *National Biodiversity Atlas*. Retrieved from nbnatlas.org: [\[REDACTED\]](#)
- Plantlife. (2024). *Important Plant Area (IPA) Criteria*. Retrieved November 19, 2024, from Plantlife: [\[REDACTED\]](#)

Stroh, P. A., Leach, S. J., August, T. A., Walker, K. J., Pearman, D. A., Rumsey, F. J., . . . Taylor, I. (2014). *A Vascular Plant Red List for England*. Bristol: Botanical Society of Britain and Ireland. Retrieved November 19, 2024, [REDACTED]

Suffolk Biodiversity Information Service. (2024). *Identifying Protected Sites*. Retrieved from SuffolkBIS: [REDACTED]

Suffolk Biodiversity Planning Group. (2012). *Suffolk Biodiversity Action Plan and Planning*. Retrieved from [REDACTED]

The Chartered Institute of Ecology and Environmental Management. (2019). *Advice Note on the Lifespan of Ecological Reports and Surveys*. CIEEM. Retrieved October 08, 2024, from [REDACTED]

Annex 2.A.1 Species Data Records Summary

A.1.1 Table A.1 below contains a summary of the results of the desk study for the Suffolk Onshore Scheme showing records for protected and notable species of reptiles, birds, higher plants, invertebrates and mammals within 2 km of the Suffolk Onshore Scheme Order Limits 5 km for bats).

Table A.1 Summary of records of protected and notable species.

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
Amphibians								
Common frog	<i>Rana temporaria</i>	Y	-	-	-	Y	40 m, SW, 2020	40 m, SW, 2020
Common toad	<i>Bufo bufo</i>	Y	Y	-	-	Y	1.8 km, NE, 2018	50 m, N, 2014
Great crested newt	<i>Triturus cristatus</i>	Y	Y	-	Y	Y	Within Suffolk Onshore Scheme Order Limits, 2021	Within Suffolk Onshore Scheme Order Limits, 2021
Smooth newt	<i>Lissotriton vulgaris</i>	Y	-	-	Y	Y	450 m, NW, 2023	Within Suffolk Onshore

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
								Scheme, 2021
Birds								
Lesser redpoll	<i>Acanthis cabaret</i>	-	Y	-	-	Y	340 m, SW, 2017	340 m, SW, 2017
Common (mealy) redpoll	<i>Acanthis flammea</i>	-	-	Y	-	Y	340 m, SW, 2017	340 m, SW, 2017
Common sandpiper	<i>Actitis hypoleucos</i>	-	-	Y	-	Y	1 km, S, 2021	1 km, S, 2021
Eurasian skylark	<i>Alauda arvensis</i>	-	Y	-	-	Y	1.5 km, SW, 2023	230 m, SW, 2016
Razorbill	<i>Alca torda</i>	-	-	Y	-	Y	Within 2 km, 2022	Within 2 km, 2022
Kingfisher	<i>Alcedo atthis</i>	Y	-	-	-	Y	1.5 km, S, 2023	720 m, SW, 2015
Pintail	<i>Anas acuta</i>	Y	-	-	-	Y	230 m, SW, 2018	230 m, SW, 2018
Teal	<i>Anas crecca</i>	-	-	Y	-	Y	340 m, SW, 2022	Within Suffolk Onshore Scheme Order

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
								Limits, 2016
Mallard	<i>Anas platyrhynchos</i>	-	-	Y	-	Y	1.1 km, N, 2023	630 m, N, 2017
White-fronted goose	<i>Anser Albifrons</i>	-	-	Y	-	Y	100 m, NE, 2021	100 m, NE, 2021
Greylag goose	<i>Anser anser</i>	Y	-	-	Y	Y	Within Suffolk Onshore Scheme Order Limits, 2021	Within Suffolk Onshore Scheme Order Limits, 2021
Meadow pipit	<i>Anthus pratensis</i>	-	-	Y	-	Y	70 m, W, 2018	70 m, W, 2018
Swift	<i>Apus apus</i>	-	-	Y	-	Y	1.5 km, SW, 2023	20 m, E, 2019
Eurasian bittern	<i>Botaurus stellaris</i>	Y	Y	-	-	Y	1 km, NE, 2019	630 m, N, 2017
Dark-bellied brent goose	<i>Branta bernicla bernicla</i>	-	Y	-	-	Y	1.8 km, S, 2018	1.8 km, S, 2018
Barnacle goose	<i>Branta leucopsis</i>	-	-	Y	Y	Y	130 m, N, 2018	Within Suffolk Onshore

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
								Scheme Order Limits, 2015
Cetti's warbler	<i>Cettia cetti</i>	Y	-	-	-	Y	1.5 km, SW, 2023	380 m, S, 2017
Greenfinch	<i>Chloris chloris</i>	-	-	Y	-	Y	1.5 km, SW, 2023	1 km, N, 2017
Black-headed gull	<i>Chroicocephalus ridibundus</i>	-	-	Y	Y	Y	1.3 km, N, 2023	Within Suffolk Onshore Scheme Order Limits, 2021
Western marsh harrier	<i>Circus aeruginosus</i>	Y	-	-	-	Y	630 m, NW, 2017	630 m, NW, 2017
Stock Dove	<i>Columba oenas</i>	-	-	Y	-	Y	1.5 km, S, 2023	30 m, S, 2020
Cuckoo	<i>Cuculus canorus</i>	-	Y	-	-	Y	870 m, SW, 2023	870 m, SW, 2023
Mute swan	<i>Cygnus olor</i>	-	-	Y	-	Y	1.1 km, N, 2021	630 m, N, 2017

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
House martin	<i>Delichon urbicum</i>	-	-	Y	-	Y	150 m, SE, 2019	150 m, SE, 2019
Yellowhammer	<i>Emberiza citrinella</i>	-	Y	-	-	Y	1.6 km, SW, 2023	190 m, S, 2020
Common reed bunting	<i>Emberiza schoeniclus</i>	-	Y	-	-	Y	380 m, N, 2017	380 m, N, 2017
Merlin	<i>Falco columbarius</i>	Y	-	-	-	Y	70 m, SW, 2019	70 m, SW, 2019
Hobby	<i>Falco Subbuteo</i>	Y	-	-	-	Y	380 m, SW, 2023	70 m, SW, 2021
Kestrel	<i>Falcon tinnunculus</i>	-	-	Y	-	Y	1.5 km, S, 2023	380 m, N, 2017
Red-throated diver	<i>Gavia stellata</i>	Y	-	-	Y	Y	Within Suffolk Onshore Scheme, 2016	Within Suffolk Onshore Scheme Order Limits, 2016
Oystercatcher	<i>Haematopus ostralegus</i>	-	-	Y	-	Y	820 m, SW, 2023	820 m, SW, 2023
Mediterranean gull	<i>Ichthyaetus melanocephalus</i>	Y	-	-	-	Y	1 km, N, 2017	1 km, N, 2017

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
European herring gull	<i>Larus argentatus</i>	-	-	Y	-	Y	1.5 km, SW, 2023	230 m, SW, 2018
Caspian gull	<i>Larus cachinnans</i>	-	-	Y	-	Y	1.1 km, N, 2017	1.1 km, N, 2017
Common gull	<i>Larus canus</i>	-	-	Y	-	Y	50 m, NE, 2021	50 m, NE, 2021
Lesser black-backed gull	<i>Larus fuscus</i>	-	-	Y	-	Y	1.5 km, SW, 2023	230 m, SW, 2018
Glaucous gull	<i>Larus hyperboreus</i>	-	-	Y	-	Y	860 m, S, 2018	860 m, S, 2018
Great black-backed gull	<i>Larus marinus</i>	-	-	Y	-	Y	1.4 km, S, 2021	190 m, NW, 2018
Yellow-legged gull	<i>Larus michahellis</i>	-	-	Y	-	Y	1.1 km, N, 2017	90 m, W, 2015
Black-tailed godwit	<i>Limosa limosa</i>	Y	-	-	-	Y	1.9 km, S, 2018	1.9 km, S, 2018
Linnet	<i>Linaria cannabina</i>	-	-	Y	-	Y	90 m, W, 2021	90 m, W, 2021
Woodlark	<i>Lullula arborea</i>	Y	Y	-	-	Y	680 m, SE, 2021	680 m, SE, 2021
Nightingale	<i>Luscinia megarhynchos</i>	-	-	Y	-	Y	1 km, N, 2017	630 m, N, 2016

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
Wigeon	<i>Mareca penelope</i>	-	-	Y	-	Y	230 m, SW, 2018	230 m, SW, 2018
Gadwall	<i>Mareca Strepera</i>	-	-	Y	-	Y	1 km, N, 2017	720 m, SW, 2015
Grey wagtail	<i>Motacilla cinerea</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Curlew	<i>Numenius arquata</i>	-	Y	-	-	Y	1.7 km, SW, 2022	380 m, N, 2017
Eurasian whimbrel	<i>Numenius phaeopus</i>	Y	-	-	-	Y	1.5 km, SW, 2023	110 m, S, 2015
Western osprey	<i>Pandion haliaetus</i>	Y	-	-	-	Y	1.9 km, SW, 2021	1.9 km, SW, 2021
Bearded reedling	<i>Panurus biarmicus</i>	Y	-	-	-	Y	380 m, N, 2017	380 m, N, 2017
House sparrow	<i>Passer domesticus</i>	-	Y	-	-	Y	1.4 km, S, 2021	300 m, N, 2018
Redstart	<i>Phoenicurus phoenicurus</i>	-	-	Y	-	Y	1 km, SW, 2017	1 km, SW, 2017
Black redstart	<i>Phoenicurus ochruros</i>	Y	-	-	-	Y	490 m, N, 2016	490 m, N, 2016
Willow warbler	<i>Phylloscopus trochilus</i>	-	-	Y	-	Y	380 m, N, 2017	380 m, N, 2017

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
Spoonbill	<i>Platalea leucorodia</i>	Y	-	-	-	Y	990 m, SW, 2023	290 m, SW, 2021
Snow bunting	<i>Plectrophenax nivalis</i>	Y	-	-	-	Y	380 m, S, 2017	380 m, S, 2017
Marsh tit	<i>Poecile palustris</i>	-	-	Y	-	Y	1.5 km, SW, 2023	1.5 km, SW, 2023
Dunnock	<i>Prunella modularis</i>	-	-	Y	-	Y	1.5 km, SW, 2023	380 m, N, 2017
Bullfinch	<i>Pyrrhula pyrrhula</i>	-	-	Y	-	Y	380 m, N, 2017	380 m, N, 2017
Firecrest	<i>Regulus ignicapilla</i>	Y	-	Y	-	Y	380 m, N, 2017	380 m, N, 2017
Shoveler	<i>Spatula clypeata</i>	-	-	Y	-	Y	230 m, SW, 2018	230 m, S, 2018
Turtle Dove	<i>Streptopelia turtur</i>	-	-	Y	-	Y	350 m, SE, 2023	350 m, SE, 2023
Garganey	<i>Spatula querquedula</i>	Y	-	-	-	Y	2 km, S, 2016	2 km, S, 2016
Common tern	<i>Sterna hirundo</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Tawny owl	<i>Strix aluco</i>	-	-	Y	-	Y	270 m, SW, 2021	270 m, SW, 2021

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
Starling	<i>Sturnus vulgaris</i>	-	-	Y	-	Y	230 m, SW, 2018	230 m, SW, 2018
Shelduck	<i>Tadorna tadorna</i>	-	-	Y	-	Y	1.6 km, SW, 2022	1 km, N, 2017
Sandwich tern	<i>Thalasseus sandvicensis</i>	-	-	Y	-	Y	1.4 km, N, 2017	700 m, S, 2015
Greenshank	<i>Tringa Nebularia</i>	Y	-	-	-	Y	630 m, N, 2017	630 m, N, 2017
Redshank	<i>Tringa totanus</i>	-	-	Y	-	Y	1.1 m, S, 2021	1.1 m, S, 2021
Redwing	<i>Turdus iliacus</i>	Y	-	-	-	Y	380 m, N, 2017	380 m, N, 2017
Song thrush	<i>Turdus philomelos</i>	-	-	Y	-	Y	1.5 km, SW, 2023	380 m, N, 2017
Fieldfare	<i>Turdus pilaris</i>	Y	-	-	-	Y	380 m, N, 2017	380 m, N, 2017
Ring ouzel	<i>Turdus torquatus</i>	-	-	Y	-	Y	370 m, SE, 2021	370 m, SE, 2021
Mistle thrush	<i>Turdus viscivorus</i>	-	-	Y	-	Y	380 m, N, 2017	380 m, N, 2017
Western barn owl	<i>Tyto alba</i>	Y	-	-	Y	Y	75 m, S, 2022	Within Suffolk Onshore

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
								Scheme Order Limits, 2018
Eurasian hoopoe	<i>Upupa epops</i>	Y	-	-	-	Y	950 m, SW, 2016	950 m, SW, 2016
Lapwing	<i>Vanellus vanellus</i>	-	Y	-	-	Y	870 m, SW, 2023	80 m, NE, 2016
Higher Plants - flowering plants								
Gren-winged Orchid	<i>Anacamptis morio</i>	-	-	Y	-	Y	1 km, N, 2022	1 km, N, 2022
Stinking Chamomile	<i>Anthemis cotula</i>	-	-	Y	-	Y	1 km, N, 2023	1km, N, 2023
Sea-kale	<i>Crambe maritima</i>	-	-	Y	Y	-	Within Suffolk Onshore Scheme Order Limits, 2023	Within Suffolk Onshore Scheme Order Limits, 2023
Mossy stonecrop	<i>Crassula tillaea</i>	-	-	Y	-	Y	690 m, W, 2019	200 m, NW, 2014

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
Red-tipped Cudweed	<i>Filago lutescens</i>	-	Y	-	-	Y	690 m, W, 2019	690 m, W, 2019
Yellow horned-poppy	<i>Glaucium flavum</i>	-	-	Y	Y	-	Within Suffolk Onshore Scheme Order Limits, 2023	Within Suffolk Onshore Scheme Order Limits, 2023
Bluebell	<i>Hyacinthoides non-scripta</i>	Y	-	-	-	Y	1 km, S, 2023	1 km, S, 2023
Sea pea	<i>Lathyrus japonicus</i>	-	-	Y	Y	Y	Within Suffolk Onshore Scheme Order Limits, 2023	Within Suffolk Onshore Scheme Order Limits, 2023
Dittander	<i>Lepidium latifolium</i>	-	-	Y	-	Y	1.5 km, SW, 2023	1.5 km, SW, 2023
Small-flowered catchfly	<i>Silene gallica</i>	-	-	Y	-	Y	1.1 km, N, 2023	1.1 km, N, 2023
Field Woundwort	<i>Stachys arvensis</i>	-	-	Y	Y	-	Within Suffolk	Within Suffolk

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
							Onshore Scheme Order Limits, 2023	Onshore Scheme Order Limits, 2023
Clustered clover	<i>Trifolium glomeratum</i>	-	-	Y	-	Y	600 m, N, 2023	40 m, S, 2014
Sulphur clover	<i>Trifolium ochroleucon</i>	-	-	Y	-	Y	1.1 km, NE, 2023	1.1 km, NE, 2023
Suffocated clover	<i>Trifolium suffocatum</i>	-	-	Y	-	Y	10 m, W, 2023	10 m, W, 2023
Invertebrates								
August Thorn	<i>Ennomos quercinaria</i>	-	Y	-	-	Y	980 m, NE, 2021	650 m, N, 2020
Autumnal rustic	<i>Eugnorisma glareosa</i>	-	Y	-	-	Y	980 m, NE, 2021	520 m, SE, 2015
Bee Wolf	<i>Philanthus triangulum</i>	-	Y	-	-	Y	1.1 km, N, 2023	180 m, N, 2017
Beaded chestnut	<i>Agrochola lychnidis</i>	-	Y	-	-	Y	1.8 km, NE, 2022	500 m, SE, 2015
Blood vein	<i>Timandra comae</i>	-	Y	-	-	Y	1.8 km, NE, 2022	520 m, SE, 2021

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
Brindled beauty	<i>Lycia hirtaria</i>	-	Y	-	-	Y	1.8 km, NE, 2022	980 m, NE, 2021
Broom moth	<i>Ceramica pisi</i>	-	Y	-	-	Y	70 m, W, 2021	70 m, W, 2021
Broom-tip	<i>Chesias rufata</i>	-	Y	-	-	Y	980 m, NE, 2021	980 m, NE, 2021
Brown-spot pinion	<i>Agrochola litura</i>	-	Y	-	-	Y	1.8 km, NE, 2022	520 m, SE, 2015
Bryony mining bee	<i>Andrena florea</i>	-	Y	-	-	Y	380 m, SW, 2023	380 m, SW, 2023
Buff ermine	<i>Spilosoma lutea</i>	-	Y	-	-	Y	750 m, NW, 2022	500 m, N, 2015
Carthusian snail	<i>Monacha (Monacha) cartusiana</i>	-	-	-	Y	Y	1.7 km, S, 2016	1.7 km, S, 2016
Centre-barred sallow	<i>Atethmia centrago</i>	-	Y	-	-	Y	1.8 km, NE, 2022	530 m, SE, 2015
Cinnabar	<i>Tyria jacobaeae</i>	-	Y	-	Y	Y	750 m, NW, 2022	Within Suffolk Onshore Scheme Order Limits, 2017

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
Crescent	<i>Helotropha leucostigma</i>	-	Y	-	-	Y	70 m, W, 2021	70 m, W, 2021
Dark-barred Twin-spot Carpet	<i>Xanthorhoe ferrugata</i>	-	Y	-	-	Y	980 m, NE, 2021	490 m, N, 2014
Deep-brown dart	<i>Aporophyla lutulenta</i>	-	Y	-	-	Y	1.8 km, NE, 2022	520 m, SE, 2015
Dot moth	<i>Melanchra persicariae</i>	-	Y	-	-	Y	1.8 km, NE, 2022	490 m, N, 2015
Dusky Thorn	<i>Ennomos fuscantaria</i>	-	Y	-	-	Y	1.8 km, NE, 2022	520 m, SE, 2021
Dusky-lemon sallow	<i>Cirrhia gilvago</i>	-	Y	-	-	Y	1.8 km, NE, 2022	1.8 km, NE, 2022
Ear moth	<i>Amphipoea oculatea</i>	-	Y	-	-	Y	480 m, N, 2021	480 m, N, 2021
Feathered gothic	<i>Tholera decimalis</i>	-	Y	-	-	Y	1.8 km, N, 2022	520 m, SE, 2015
Flounced chestnut	<i>Anchoscelis helvola</i>	-	Y	-	-	Y	1.8 km, NE, 2022	980 m, NE, 2021
Forester	<i>Adscita statices</i>	-	Y	-	Y	Y	Within Suffolk Onshore Scheme Order	Within Suffolk Onshore Scheme Order

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
							Limits, 2020	Limits, 2020
Garden tiger	<i>Arctia caja</i>	-	Y	-	-	Y	500 m, N, 2022	70 m, W, 2021
Ghost Moth	<i>Hepialus humuli</i>	-	Y	-	-	Y	1.8 km, NE, 2022	1.8 km, NE, 2022
Grayling	<i>Hipparchia Semele</i>	-	Y	-	Y	Y	130 m, N, 2021	Within Suffolk Onshore Scheme Order Limits, 2020
Green-brindled crescent	<i>Allophyas oxyacanthae</i>	-		-	-	Y	1.8 km, NE, 2022	520 m, SE, 2015
Grey dagger	<i>Acronicta psi</i>	-	Y	-	-	Y	1.8 km, NW, 2015	490 m, N, 2014
Heath rustic	<i>Xestia agathina</i>	-	Y	-	-	Y	980 m, NE, 2020	980 m, NE, 2020
Hedge rustic	<i>Tholera cespitis</i>	-	Y	-	-	Y	1.8 km, NE, 2022	520 m, SE, 2021
Horehound long-horn	<i>Nemophora fasciella</i>	-	Y	-	-	Y	800 m, SE, 2019	800 m, SE, 2019

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Knot Grass	<i>Acronicta rumicis</i>	-	Y	-	-	Y	800 m, N, 2022	70 m, W, 2021
Lackey	<i>Malacosoma neustria</i>	-	Y	-	-	Y	1.8 km, NE, 2021	1.8 km, NE, 2021
Large garden bumblebee	<i>Bombus ruderratus</i>	-	Y	-	-	Y	1.9 km, NW, 2015	1.9 km, NW, 2015
Large nutmeg	<i>Apamea anceps</i>	-	Y	-	-	Y	1.9 km, NW, 2015	1.9 km, NW, 2015
Latticed heath	<i>Chiasmia clathrata</i>	-	Y	-	-	Y	600 m, SW, 2022	470 m, W, 2021
Large wainscot	<i>Rhizedra lutosus</i>	-	Y	-	-	Y	1.8 km, NE, 2022	520 m, SE, 2015
Lunar yellow underwing	<i>Noctua orbona</i>	-	Y	-	-	Y	1.8 km, NE, 2022	500 m, N, 2021
Mottled rustic	<i>Caradrina morpheus</i>	-	Y	-	-	Y	1.8 km, NE, 2022	500 m, N, 2021
Mouse moth	<i>Amphipyra tragopoginis</i>	-	Y	-	-	Y	800 m, N, 2022	70 m, W, 2021
Mullein wave	<i>Mullein Wave</i>	-	Y	-	-	Y	1 km, SW, 2021	1 km, SW, 2021
Narrow-mouthed whorl snail	<i>Vertigo (Vertilla) angustior</i>	-	Y	-	-	Y	1.6 km, S, 2016	1 km, S, 2015

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Norfolk hawker	<i>Anaciaeschna isoceles</i>	Y	Y	-	-	Y	800 m, N, 2023	100 m, N, 2022
Oak hook-tip	<i>Watsonalla binaria</i>	-	Y	-	-	Y	980 m, NE, 2022	520 m, SE, 2021
Powdered quaker	<i>Orthosia gracilis</i>	-	Y	-	-	Y	980 m, NE, 2022	520 m, SE, 2015
Pretty chalk carpet	<i>Melanthia procellata</i>	-	Y	-	-	Y	1.8 km, NW, 2015	1.8 km, NW, 2015
Rest harrow	<i>Aplasta ononaria</i>	-	Y	-	-	Y	1.8 km, NE, 2022	1.8 km, NE, 2022
Rosy minor	<i>Litoligia literosa</i>	-	Y	-	-	Y	1.8 km, NE, 2022	70 m, W, 2021
Rosy rustic	<i>Hydraecia micacea</i>	-	Y	-	-	Y	1.8 km, NE, 2022	70 m, W, 2021
Rustic	<i>Hoplodrina blanda</i>	-	Y	-	-	Y	1.8 km, NE, 2022	70 m, W, 2021
Sallow	<i>Cirrhia icteritia</i>	-	Y	-	-	Y	1.8 km, NE, 2022	980 m, NE, 2021
Shaded broad-bar	<i>Scotopteryx chenopodiata</i>	-	Y	-	-	Y	1.8 km, NE, 2022	70 m, W, 2021

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Shoulder-striped Wainscot	<i>Leucania comma</i>	-	Y	-	-	Y	500 m, N, 2021	500 m, N, 2021
Small emerald	<i>Hemistola chrysoprasaria</i>	-	Y	-	-	Y	800 m, N, 2021	490 m, N, 2014
Small heath	<i>Coenonympha pamphilus</i>	-	Y	-	Y	Y	370 m, N, 2021	Within Suffolk Onshore Scheme Order Limits, 2020
Small phoenix	<i>Ecliptopera silaceata</i>	-	Y	-	-	Y	1.8 km, NW, 2015	490 m, N, 2014
Small square spot	<i>Diarsia rubi</i>	-	Y	-	Y	Y	1.8 km, NE, 2022	1.8 km, NE, 2022
Spinach	<i>Eulithis mellinata</i>	-	Y	-	Y	Y	980 m, NE, 2021	980 m, NE, 2021
Sprawler	<i>Asteroscopus sphinx</i>	-	Y	-	Y	Y	1.8 km, NE, 2022	1.8 km, NE, 2022
Stag beetle	<i>Lucanus cervus</i>	Y	Y	-	Y	Y	1.4 km, SW, 2019	1.4 km, SW, 2019
Streak	<i>Chesias legatella</i>	-	Y	-	-	Y	980 m, NE, 2021	520 m, SE, 2015

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Wall	<i>Lasiommata megera</i>	-	Y	-	-	Y	250 m, NW, 2014	250 m, NW, 2014
White admiral	<i>Limenitis camilla</i>	-	Y	-	-	Y	350 m, N, 2019	60 m, NE, 2017
White ermine	<i>Spilosoma lubricipeda</i>	-	Y	-	-	Y	1.8 km, NE, 2022	500 m, N, 2021
White-letter hairstreak	<i>Satyrrium w-album</i>	Y	Y	-	-	Y	1.5 km, E, 2021	320 m, S, 2019
White-line dart	<i>Euxoa tritici</i>	-	Y	-	-	Y	1.8 km, NE, 2022	980 m, NE, 2020
White-mantled wainscot	<i>Archanara neurica</i>	-	Y	-	-	Y	490 m, N, 2015	490 m, N, 2015
Marine Mammals								
Grey seal	<i>Halichoerus grypus</i>	-	-	Y	Y	Y	Within Suffolk Onshore Scheme Order Limits, 2020	Within Suffolk Onshore Scheme Order Limits, 2020
Common seal	<i>Phoca vitulina</i>	-	Y	-	-	Y	1.7 km, N, 2015	1.7 km, N, 2015
Mammals								

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European water vole	<i>Arvicola amphibius</i>	Y	Y	-	-	Y	Within Suffolk Onshore Scheme Order Limits, 2022	Within Suffolk Onshore Scheme Order Limits, 2022
West European hedgehog	<i>Erinaceus europaeus</i>	-	Y	-	-	Y	480 m, NW, 2022	30 m, N, 2017
Brown hare	<i>Lepus europaeus</i>	-	Y	-	-	Y	600 m, W, 2018	600 m, W, 2018
European otter	<i>Lutra lutra</i>	Y	Y	-	-	Y	600 m, S, 2022	600 m, S, 2022
Eurasian badger	<i>Meles meles</i>	Y	-	-	Y	Y		
Hazel dormouse	<i>Muscardinus avellanarius</i>	Y	Y	-	-	Y		
Polecat	<i>Mustela putorius</i>	-	Y	-	-	Y	960 m, N, 2021	10 m, NE, 2020

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
Western barbastelle bat	<i>Barbastella barbastellus</i>	Y	Y	-	-	Y	540 m, N, 2023	540 m, N, 2023
Serotine bat	<i>Eptesicus serotinus</i>	Y	-	-	-	Y	1.4 km, NW, 2021	580 m, S, 2016
Daubenton's bat	<i>Myotis daubentonii</i>	Y	-	-	-	Y	580 m, S, 2018	580 m, S, 2018
Natterer's bat	<i>Myotis nattereri</i>	Y	-	-	-	Y	710 m, N, 2023	580 m, S, 2016
Noctule bat	<i>Nyctalus noctula</i>	Y	Y	-	-	Y	450 m, SE, 2022	280 m, SW, 2021
Nathusius's pipistrelle	<i>Pipistrellus nathusii</i>	Y	-	-	-	Y	440 m, SE, 2022	440 m, SE, 2022
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	Y	-	-	-	Y	480 m, S, 2023	280 m, SW, 2021
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	Y	-	-	-	Y	530 m, S, 2023	220 m, SE, 2018
Brown long-eared bat	<i>Plecotus auritus</i>	Y	Y	-	-	Y	490 m, S, 2023	Within Suffolk Onshore Scheme Order Limits, 2023

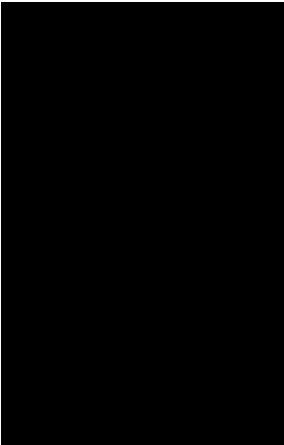
Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
Reptiles								
Slow-worm	<i>Anguis fragilis</i>	Y	Y	-	-	Y	830 m, N, 2023	240 m, N, 2017
Grass snake	<i>Natrix helvetica</i>	Y	Y	-	-	Y	1.2 km, NW, 2021	120 m, N, 2017
Adder	<i>Vipera berus</i>	Y	Y	-	-	Y	430 m, S, 2022	230 m, S, 2015
Common lizard	<i>Zootoca vivipara</i>	Y	Y	-	-	Y	830 m, N, 2022	390 m, N, 2021
Invasive Species								
Three-cornered garlic	<i>Allium triquetrum</i>	Y	-	-	-	Y	1 km, S, 2023	300 m, S, 2018
Egyptian goose	<i>Alopchen aegyptiaca</i>	Y	-	-	-	Y	1 km, N, 2023	1 km, N, 2023
Water fern	<i>Azolla filiculoides</i>	Y	-	-	-	Y	1.5 km, N, 2020	1.5 km, N, 2020
New Zealand pigmyweed	<i>Crassula helmsii</i>	Y	-	-	-	Y	1.3 km, N, 2017	1.3 km, N, 2017
Japanese knotweed	<i>Fallopia japonica</i>	Y	-	-	-	Y	1.3 km, N, 2017	450 m, N, 2014
Giant hogweed	<i>Heracleum mantegazzianum</i>	Y	-	-	-	Y	800 m, N, 2019	400 m, S, 2018

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present within Order Limits	Present/potentially present in wider Zone of Influence	Latest record (approximate distance)	Closest record (approximate distance)
Chinese Water Deer	<i>Hydropotes inermis</i>	Y	-	-	-	Y	20 m, W, 2023	Within Suffolk Onshore Scheme Order Limits, 2022
Himalayan balsam	<i>Impatiens glandulifera</i>	Y	-	-	-	Y	1.2 km, N, 2017	360 m, N, 2015
Yellow archangel	<i>Lamiaeum galeobdolon</i> subsp. <i>argentatum</i>	Y	-	-	-	Y	500 m, S, 2014	500 m, S, 2014
Chinese muntjac	<i>Muntiacus reevesi</i>	Y	-	-	-	Y	120 m, NE, 2024	20 m, W, 2023
Virginia-creeper	<i>Parthenocissus quinquefolia</i>	Y	-	-	-	Y	2 km, N, 2017	2 km, N, 2017
Rhododendron	<i>Rhododendron ponticum</i>	Y	-	-	-	Y	1.3 km, N, 2017	1.3 km, N, 2017
Japanese rose	<i>Rosa rugosa</i>	Y	-	-	-	Y	1 km, SW, 2023	300 m, S, 2017

Table A.2 Indications of badger presence

Sett Reference (Closest sett)	Location	Description	Photograph
(1)		Dead badger (roadside)	No Photograph
1		Active outlier sett	<i>[Photo removed]</i>
(1/2)		Latrine	<i>[Photo removed]</i>
2		Main sett (bedding, footprints, snuffle holes, recent excavations, clear paths and latrines all observed)	<i>[Photo removed]</i>
3		Main sett (with 8 entrances)	<i>[Photo removed]</i>
(2/5)		Snuffle hole close to mammal path	<i>[Photo removed]</i>
5		Sett	<i>[Photo removed]</i>
4		Disused badger sett entrance	No picture
(4)		Latrine	<i>[Photo removed]</i>
(4)		Footprint	<i>[Photo removed]</i>
6		Multiple sett entrances – hair and fresh bedding	<i>[Photo removed]</i>
6		Multiple sett entrances – hair and fresh bedding	<i>[Photo removed]</i>
(6/7)		Badger footprint	<i>[Photo removed]</i>
7		Main sett (Active)	<i>[Photo removed]</i>
8		Sett	<i>[Photo removed]</i>
9		Sett with recent excavations	<i>[Photo removed]</i>
(10)		Multiple footprints	<i>[Photo removed]</i>
10		Main sett (active)	<i>[Photo removed]</i>
11		Main sett (bedding, footprints, snuffle holes, recent excavations, clear paths and latrines all observed)	<i>[Photo removed]</i>

Sett Reference (Closest sett)	Location	Description	Photograph
(11)		Latrine	<i>[Photo removed]</i>
(10/11)		Badger footprint	<i>[Photo removed]</i>
(10/11)		Badger footprint	<i>[Photo removed]</i>
12		Disused sett	<i>[Photo removed]</i>
(12)		Badger footprint	<i>[Photo removed]</i>
13		Disused sett	<i>[Photo removed]</i>
14		Main sett, image shows entrance 1, recent excavation, bedding, snuffle holes, latrines, footprints and clear paths observed	<i>[Photo removed]</i>
14		Main sett, 7 entrances identified	<i>[Photo removed]</i>
14		Main sett, entrance, recent excavation, bedding, snuffle holes, latrines, footprints and clear paths observed	<i>[Photo removed]</i>
15		Outlier sett, partially used	<i>[Photo removed]</i>
(15)		Footprint	<i>[Photo removed]</i>
(15)		Snuffle hole	No photograph
(15)		Footprint	<i>[Photo removed]</i>
16		Sett	<i>[Photo removed]</i>
(16)		Latrine	<i>[Photo removed]</i>
(16)		Snuffle holes	<i>[Photo removed]</i>
17		2 hole badger sett, one recently dug hole and other older. Assumed outlier. Hair found.	<i>[Photo removed]</i>
(17)		Push under	No photograph
(17)		Latrine	No photograph
(17)		Latrine	No photograph
(17)		Latrine	No photograph

Sett Reference (Closest sett)	Location	Description	Photograph
18		Active sett	<i>[Photo removed]</i>
(18)		Latrine	<i>[Photo removed]</i>
19		Disused outlier sett	<i>[Photo removed]</i>
(19)		Footprint	<i>[Photo removed]</i>
(19)		Clump of badger hair	<i>[Photo removed]</i>
(19)		Singe dung	<i>[Photo removed]</i>

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