

The Great Grid Upgrade

Sea Link

Preliminary Environmental Information Report

Volume: 2

Part 2 Suffolk Onshore Scheme

Appendix 2.3.A Phase 1 Habitat Survey Report

Version A

October 2023

nationalgrid

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2.3.A.1 Introduction

Background

- 2.3.A.1.1 This Extended Phase 1 Habitat Survey Report has been prepared to assess the ecological constraints in connection with the Suffolk Onshore Scheme for the Proposed Project. The Suffolk Onshore Scheme is located on the east coast of Suffolk, as shown by **Volume 3, Part 1, Figure 1.1.2 Suffolk Onshore Scheme Boundary**.
- 2.3.A.1.2 The assessment of ecological constraints has been undertaken with reference to current CIEEM good practice (Ref 2.3.1) and forms part of the technical information commissioned by National Grid Electricity Transmission plc (National Grid) in connection with the Suffolk Onshore Scheme. The Extended Phase 1 Habitat Survey Report addresses relevant wildlife legislation and planning policy as summarised in **Volume 1 Part 2 Chapter 3 Ecology and Biodiversity** and is consistent with the requirements of *British Standard 42020:2013 Biodiversity. Code of Practice for Planning and Development*.
- 2.3.A.1.3 This Extended Phase 1 Habitat Survey Report is intended to highlight the ecological baseline in respect of the Suffolk Onshore Scheme design, site layout and/or site investigation. Further ecological surveys and/or ecological impact assessment (including detailed mitigation measures) may be required in connection with the application for development consent and/or to contribute to an Environmental Impact Assessment once the Proposed Development has been finalised and any required surveys have been completed. The need for these surveys is detailed within the Preliminary Environmental Information Report (PEIR).

The Suffolk Onshore Scheme

- 2.3.A.1.4 The draft Order Limits for the Suffolk Onshore Scheme is illustrated on **Volume 3, Part 1, Figure 1.1.2 Suffolk Onshore Scheme Boundary**.
- 2.3.A.1.5 The Suffolk Onshore Scheme is described in the Preliminary Environmental Information Report (PEIR) **Volume 1 Part 1 Chapter 4 Description of the Proposed Project**.

Current Land Use of the Suffolk Onshore Scheme

- 2.3.A.1.6 The land within the Suffolk Onshore Scheme comprises a range of uses including North Warren RSPB Reserve, agricultural land, coastal habitats, grassland, woodland, hedgerow, wet ditches, ponds and verges. The wider area consists of coastal and estuarine habitats, the Aldeburgh Golf Course, agricultural land, urban areas.

The Purpose of the Extended Phase 1 Habitat Report

2.3.A.1.7 This Extended Phase 1 Habitat Report presents ecological information obtained during the following:

- A desk-study undertaken on 6 June 2022 to obtain records of designated sites, notable habitats¹ and protected and notable species² within the land within the proposed Suffolk Onshore Scheme draft Order Limits and appropriate Zones of Influence (Zol) (the area covered by the desk study is hereafter referred to as the ‘study area’);
- High-definition aerial drone imagery. Flights for the drone imagery were undertaken in November 2022; and,
- Walkover surveys of accessible land through Public Rights of Way (PRoW) have been undertaken throughout 2022 and 2023 and an update survey on 26 June to 28 June 2023 to reflect the updates to the draft Order Limits presented in the PEIR. Several areas of land within the draft Order Limits boundary have not been surveyed at time of writing as no access has currently been provided. These are discussed in more detail later.

2.3.A.1.8 The purpose of the Extended Phase 1 Habitat Report is to provide a high-level ecological appraisal of the Suffolk Onshore Scheme, specifically to:

- establish baseline conditions and determine the presence of Important Ecological Features (IEF)³ (or those that could be present), as far as is possible; and
- establish any requirements for more detailed surveys.

¹ Notable habitats are taken as principal habitats for the conservation of biodiversity listed under Section 41 of the *Natural Environment and Rural Communities Act 2006*; hedgerows identified as being ‘important’ under the wildlife criteria of the *Hedgerow Regulations 1997*, ancient woodlands and veteran trees.

² Notable species are taken as principal species for the conservation of biodiversity listed under Section 41 of the *Natural Environment and Rural Communities Act 2006*; any species listed in an IUCN Red Data Book; and any other species listed under the Suffolk Biodiversity Strategy.

³ 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 Development.

2.3.A.2. Methodology

Desk Study

Background Records Search

- 2.3.A.2.1 The Extended Phase 1 Habitat Survey includes a desk study to obtain background records relevant to the Suffolk Onshore Scheme. The data obtained provides contextual information for the scope of field surveys, to aid the evaluation of field survey results, and to provide supplementary information where complete field survey coverage is not possible. The desk study data sources are presented in Table 2.3.A.1.
- 2.3.A.2.2 The study area is dependent upon the nature, timing and scale of the Suffolk Onshore Scheme, as well as the location of the Suffolk Onshore Scheme and the surrounding landscape. These variables all contribute to what is referred to as the Zone of Influence (Zol) of the Suffolk Onshore Scheme, which is the area over which ecological features may be affected by biophysical changes because of the works and associated activities.

Table 2.3.A.1 : Desk study data sources

Data source	Date	Purpose
Multi-Agency Geographic Information for the Countryside (MAGIC) website (Ref 2.3.2)	July 2022	Designated sites of nature conservation importance (statutory sites only) within 5 km of the proposed Suffolk Onshore Scheme draft 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

Data source	Date	Purpose
	June 2022, updated July 2023	ancient woodland and 'Habitats of Principal Importance for the Conservation of Biodiversity' included in the England Biodiversity List ⁴ .
Suffolk Biodiversity Information Centre	June 2022, updated July 2023	Records of non-statutory designated sites (Local Wildlife Sites) within 2 km of the proposed Suffolk Onshore Scheme draft 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 draft 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 draft Order Limits, in order to help establish if the land within and immediately surrounding the

⁴ 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
Ordnance Survey 1:2500 Pathfinder maps and aerial photography	July 2022	Suffolk Onshore Scheme could be used by great crested newts. 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

- 2.3.A.2.3 An Extended Phase 1 Habitat Survey was undertaken in accordance with the standard survey method (Ref 2.3.8). Phase 1 Habitat Survey is a standard method of environmental audit. It involves categorising different habitat types and habitat features within a survey area. 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 prior to the submission of a planning application. The standard Phase 1 Habitat Survey method can be “extended” to record target notes on protected, notable and invasive species.
- 2.3.A.2.4 The Extended Phase 1 Habitat Surveys were undertaken in 2023 by a pair of suitably qualified ecologists who recorded and mapped all habitat types present within Suffolk Onshore Scheme, along with any associated relevant ecological receptors observed. The survey area encompassed all safely accessible parts of the Suffolk Onshore Scheme and adjacent habitats where access permission had been granted in advance of survey, or this land was visible from within the Suffolk Onshore Scheme draft Order Limits or from public rights of way, or other publicly accessible areas.
- 2.3.A.2.5 Where relevant ecological receptors were present, target notes were recorded and the position of these shown on the Phase 1 habitat map (**Volume 3, Part 2, Figure 2.3.2 Phase 1 Habitat Survey**). Typical and notable plant species were recorded for different habitat types and reflect the conditions at the time of survey. This was not intended to be a detailed inventory of the plant species present in the survey area as this is not required for the purposes of the Extended Phase 1 Habitat Survey.

Appraisal of Potential Suitability of Habitats to Support Protected and Notable Species

- 2.3.A.2.6 An appraisal was made of the potential suitability of the habitats present 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, but no detailed surveys were carried out for any particular species.

Invasive Non-native Species

- 2.3.A.2.7 Where any invasive non-native species were observed they were recorded as target notes, but no detailed survey was carried out for any particular species.

Limitations and Assumptions

Desk Study

- 2.3.A.2.8 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 study area. 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 is considered sufficiently recent to inform this report.

Field Survey

- 2.3.A.2.9 Much of the Extended Phase 1 Habitat Survey has been undertaken through the desk-based mapping of high-definition aerial drone photography. This was due to limited access being granted by various landowners.

- 2.3.A.2.10 Ground truthing of the aerial photography was undertaken on 27 June to 29 June 2023, information for accessible parcels has been updated. However, several land parcels were still inaccessible. These include the following parcels shown on **Volume 3, Part 2, Figure 2.3.3 Survey Parcels**:

- 25;
- 20;
- 28;
- 13;
- 2;
- 4;
- 5;
- 3;
- 1;

- 89;
- 41;
- 456;
- 584;
- 586;
- 587;
- 585; and,
- 214;

2.3.A.2.11 These represent two areas:

- North and east of Saxmundham. North of the B1119 and northeast of the railway line.
- All areas west of Snape Road up to and including land around Redhouse Farm and Moor Farm between the B1121 south of the Suffolk Onshore Scheme and B1119 north of the Suffolk Onshore Scheme.

2.3.A.2.12 An ecological survey represents a ‘snapshot’ in time of the ecological condition of the Suffolk Onshore Scheme. 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 potential to support protected species.

2.3.A.2.13 The baseline outlined here will need to be reassessed if there were any significant changes in the use of management of the land that would affect the habitats and species

2.3.A.3. Ecological Baseline

Introduction

- 2.3.A.3.1 The following sections detail the results of the desk and field-based studies undertaken to inform this Extended Phase 1 Habitat Survey.
- 2.3.A.3.2 With regard to background data, 'recent' records are considered to be those no older than 10 years from the date of the desk study (June 2022).

Statutory Sites

- 2.3.A.3.3 Sixteen statutory sites designated for nature conservation have been identified within the stated desk study areas (10 km for international and 5 km for national sites).
- 2.3.A.3.4 Table 2.3.A.2 summarises the statutory designated sites situated within the study area. These are shown on **Volume 3, Part 2, Figure 2.3.1 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 2.3.A.2: Statutory designated sites for nature conservation

Designated Site	Reason for Designation	Distance from Suffolk Onshore Scheme⁵
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
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.	600 m south of the Suffolk Onshore Scheme

⁵ Where designated sites are situated outside of the Suffolk Onshore Scheme, the distance and direction is given at the closest point of the designated site from the Suffolk Onshore Scheme

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>).	600 m south of the Suffolk Onshore Scheme
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	600 m south of the Suffolk Onshore Scheme
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>).	4 km southeast of Suffolk Onshore Scheme
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.	6 km northeast of Suffolk Onshore Scheme
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 strepera</i>, <i>Anas crecca</i>, <i>Anas clypeata</i>, <i>Circus aeruginosus</i>, <i>Recurvirostra avosetta</i>, <i>Panurus biarmicus</i></p>	6 km northeast of Suffolk Onshore Scheme
Minsmere to Walberswick Heaths and Marshes SPA	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>))	6 km northeast of the Suffolk Onshore Scheme

(1,257 ha)	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.	
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
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.	4.5 km north of Suffolk Onshore Scheme
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 is species-rich and contains a variety of characteristic fen meadow and marshland plants.	1.1 km southwest of Suffolk Onshore Scheme
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.	700 m south of the Suffolk Onshore Scheme
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>).	2 km south of the Suffolk Onshore Scheme
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>).	4.5 km south of the Suffolk Onshore Scheme
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.	3.7 km southwest of Suffolk Onshore Scheme

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.	2.3 km south of Suffolk Onshore Scheme
The Haven, Aldeburgh Local Nature Reserve (LNR) (20 ha)	The site is designated for an area of lagoons and reedbeds.	Within Suffolk Onshore Scheme

Non-Statutory Sites

2.3.A.3.5

Seventeen non-statutory sites designated for nature conservation have been identified within 2 km of the Suffolk Onshore Scheme. These are shown in Table 2.3.A.3.

Table 2.3.A.3: Non-statutory designated sites for nature conservation

Designated Site	Reason for designation	Distance from site
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 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 the Suffolk Onshore Scheme
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.	160 m northeast of Suffolk Onshore Scheme

Designated Site	Reason for designation	Distance from site
	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>).	
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 hedge, which together with the old coppice stools, indicates a woodland of some considerable age.	2 km northeast of Suffolk Onshore Scheme
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.	250 m southwest of Suffolk Onshore Scheme
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>).	2.1 km southwest of Suffolk Onshore Scheme
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
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.	910 m north of Suffolk Onshore Scheme

Designated Site	Reason for designation	Distance from site
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.	585 m southwest of the Suffolk Onshore Scheme
Great Wood CWS (5.9 ha)	Great Wood is included in the Inventory of Ancient Woodland compiled by Natural England.	Adjacent to Suffolk Onshore Scheme
Roadside Nature Reserve (RNR) 216 (<0.1ha)	The RNR contains a legally protected rare fungus - sandy stiltball (<i>Battarrea phalloides</i>)	850 m north of the Suffolk Onshore Scheme
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>Silaum 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>).	1.7 km north of the Suffolk Onshore Scheme
Lonely Wood CWS (5.6 ha)	An ancient woodland	1.7 km northwest of the Suffolk Onshore Scheme
Benhall Churchyard CWS (0.5 ha)	A species rich grassland	1.3 km west of the Suffolk Onshore Scheme
Manor Farm Meadows CWS (1.4 ha)	A species rich grassland	1.3 km southwest of the Suffolk Onshore Scheme
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.	Adjacent to the Suffolk Onshore Scheme

Designated Site	Reason for designation	Distance from site
Kelsale Morio Meadow CWS (1 ha)	A species rich grassland	650 m north of the Suffolk Onshore Scheme
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.	1.4 km south of the Suffolk Onshore Scheme

Habitats

Desk Survey

Ancient woodland

- 2.3.A.3.6 There are two blocks of woodland listed as ancient woodland or 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 Survey Area.
- 2.3.A.3.7 Great Wood is adjacent to the Suffolk Onshore Scheme (TM437594) and is classified as Ancient and Semi-Natural Woodland⁶ and is included in the inventory of ancient woodland.
- 2.3.A.3.8 Grove Wood is adjacent to and largely surrounded by the Suffolk Onshore Scheme (TM417610), it is classified as Ancient Replanted Woodland.

Notable habitats and protected and notable flora

- 2.3.A.3.9 The data search indicated that Priority Habitats are located either within or adjacent to (i.e., up to 500 m from) the Suffolk Onshore Scheme as follows:
- Coastal Saltmarsh – present along the shore of the Alde-Ore Estuary;
 - Coastal sand dunes – present within the Suffolk Onshore Scheme along the coastal interface to Suffolk Onshore Scheme boundary;
 - Mudflats – present along the shore of the Alde-Ore Estuary;
 - Coastal and Floodplain Grazing Marsh – present within the Suffolk Onshore Scheme along the coastal interface to the Suffolk Onshore Scheme boundary;
 - Lowland Dry Acid Grassland – present within the Suffolk Onshore Scheme boundary between Saxmundham Road and Aldeburgh Road;

⁶ Multi-Agency Geographic Information for the Countryside (MAGIC) website. [MAGIC \(defra.gov.uk\)](https://www.defra.gov.uk/magic/) Accessed: 07/06/2023.

- Lowland Heathland – Adjacent to the Suffolk Onshore Scheme in the eastern region to the north of Saxmundham Road;
- Traditional Orchards – at Park Farm; and
- Hedgerows/arable field margins – present throughout the arable areas of the Suffolk Onshore Scheme; the extent and distribution of such habitats is to be determined.

Field Survey

2.3.A.3.10 Summary of classifications and area of the habitats by parcel within the Suffolk Onshore Scheme are provided in Table 2.3.A.5 and shown on **Volume 3, Part 2, Figure 2.3.2 Phase 1 Habitat Survey**, with specific features highlighted by target notes (TNs) provided in Table 2.3.A.6.

2.3.A.3.11 A summary of habitats follows.

J1.1 – Cultivated/disturbed land – arable

2.3.A.3.12 Arable crop was the main habitat present within the Suffolk Onshore Scheme west of Alburgh golf course, to the east there was little agricultural land. Crops recorded present included barley (*Hordeum vulgare*).

J1.2 - Cultivated/disturbed land - amenity grassland

2.3.A.3.13 Fields of amenity grassland were present within land parcel 58 within and adjacent to the Suffolk Onshore Scheme. These fields were utilised as turf farms for the growing and harvesting of rolls of turf.

J1.3 - Cultivated/disturbed land - ephemeral/short perennial

2.3.A.3.14 A small area of ephemeral/short perennial was located within a area of dense scrub within land parcel 205 in the east of the North Warren RSPB reserve and SSSI bordering the road. The ephemeral/short perennial habitat contained a large area of mossy stonecrop (*Crassula tilleae*) which is a national scarce plant. This area was within the Suffolk Onshore Scheme but will not be disturbed due to horizontal directional drilling (HDD) under the North Warren RSPB Reserve and SSSI. Associated target notes 205-3.



Image 2.3.A.1 - J1.3 - Cultivated/disturbed land - ephemeral/short perennial (TM467582)

A1.1.1 - Broadleaved woodland - semi-natural

2.3.A.3.15

There were multiple small woodland blocks across the Suffolk Onshore Scheme area, the majority of which were outside of the Suffolk Onshore Scheme boundary. This includes two parcels of ancient woodland (Great Wood and Grove Wood) which were directly adjacent to the Suffolk Onshore Scheme boundary. An area of woodland south of land parcel 422 and east of land parcel 468 contained a mix of broadleaved species including oak (*Quercus robur*), ash (*Fraxinus excelsior*), field maple (*Acer campestre*), sycamore (*Acer pseudoplatanus*), horse chestnut (*Aesculus hippocastanum*), wych elm (*Ulmus glabra*), hazel (*Corylus avellana*) and lime (*Tilia x europaea*) with a ground flora dominated by bracken (*Pteridium aquilinum*) and cleavers (*Galium aparine*). Associated target notes include 422-3 to 422-7. The southeastern section of this woodland was present within the Suffolk Onshore Scheme.



Image 2.3.A.2 - A1.1.1 - Broadleaved woodland - semi-natural (TM394622)

A1.1.2 - Broadleaved woodland – plantation

2.3.A.3.16

As with semi-natural, there were several woodland blocks of plantation woodland. A strip of woodland in a u-shape was present within the Suffolk Onshore Scheme, 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 lot 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 (*Crataegus monogyna*), 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. An area of plantation woodland was also present within land parcel 468 through which an option for the haul road would cut through the woodland. This plantation woodland contains cricket bat willows (*Salix alba* 'Caerulea') to the west of the River Fromus. Associated target notes 468-1. Additionally, a woodland block of hybrid black poplars is present within land parcel 137. Associated target notes 137-1.



Image 2.3.A.3 - A1.1.2 – Broadleaved woodland – plantation (TM388621)

A1.2.2 – Coniferous woodland – plantation

2.3.A.3.17

There were several stands of coniferous woodland plantation within and adjacent to the Suffolk Onshore Scheme. Approximately 12 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.



Image 2.3.A.4 - A1.2.2 – Coniferous woodland – plantation (TM404623)

A1.3.1 – Mixed woodland – semi-natural

2.3.A.3.18

The majority of the woodland blocks across the Suffolk Onshore Scheme 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 was recorded with species including sycamore, Scot's pine (*Pinus sylvestris*) and elm. Further west within land parcel 58 and immediately south of the Suffolk Onshore Scheme was located a second block of mixed woodland recorded with species including sweet chestnut (*Castanea sativa*), Scot's pine, silver birch, sycamore, hawthorn and elm.



Image 2.3.A.5 - A1.3.1 - Mixed woodland - semi-natural (TM425595)

A3.1 – Broadleaved parkland/scattered trees

2.3.A.3.19

Scattered and lines of broadleaved trees were present across the whole Suffolk Onshore Scheme. 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. Mature oaks were present along a track way within land parcel 58. These trees contain suitability for roosting bats. A line of trees was present around the base of the reservoir in land parcel 58, trees include field maple, dog rose, oak, lime, turkey oak (*Quercus cerris*), sycamore, beech (*Fagus sylvatica*), and cherry (*Prunus sp.*). Other mature and veteran oaks were present within land parcel 421/91 adjacent to the proposed converter station and were also suitable for roosting bats.



Image 2.3.A.6 - A3.1 – Broadleaved parkland/scattered trees (TM399621)

A3.2 – Coniferous parkland/scattered trees

2.3.A.3.20

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.



Image 2.3.A.7 - A3.2 – Coniferous parkland/scattered trees (TM461585)

B2.2 - Neutral grassland - semi-improved

2.3.A.3.21

Neutral semi-improved grassland was present throughout the Suffolk Onshore Scheme as grassland margins to arable fields of varying widths. A large strip 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. An area of neutral semi-improved grassland around the reservoir in land parcel 58 and within the Suffolk Onshore Scheme, 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*).



Image 2.3.A.8 - B2.2 – Neutral grassland – semi-improved (TM398619)

B1.2 - Acid grassland - semi-improved

2.3.A.3.22

The areas of semi-improved acid grassland were found in the east of the Suffolk Onshore Scheme 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, land parcel 193 and 188 south of Sandlings SPA and 205 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.



Image 2.3.A.9 - B1.2 - Acid grassland - semi-improved (TM462585)

B5 - Marsh/marshy grassland

2.3.A.3.23

Areas of the North Warren RSPB Reserve and SSSI 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.



Image 2.3.A.10 - B5 - Marsh/marshy grassland (TM465584)

B6 – Poor semi-improved grassland

2.3.A.3.24

There were several small areas within and immediately adjacent to the Suffolk Onshore Scheme including in land parcels 152, 32, 16, 421. The area within the Suffolk Onshore Scheme in land parcel 421 consisted of poor forbs and had no bare ground, the sward height was fairly even, with little difference but a good variety of grasses. The presence of nettle (*Urtica dioica*) and dock (*Rumex sp.*) in some areas showed enrichment. Species also included timothy, sweet vernal grass (*Anthoxanthum odoratum*), cocks foot, false oat grass, bindweed (*Convolvulus sp.*), teasel (*Dipsacus fullonum*), common bent, Yorkshire fog and cow parsley (*Anthriscus sylvestris*).



Image 2.3.A.11 - B6 – Poor semi-improved grassland (TM397619)

B4 - Improved grassland

- 2.3.A.3.25 Areas of improved grassland were recorded within the Suffolk Onshore scheme within land parcels including 28 and 586. These areas were recorded via high-definition aerial mapping, however, are yet to be confirmed on the ground due to access restrictions.

C3.1 - Other tall herb and fern - ruderal

- 2.3.A.3.26 Areas of tall ruderals were present in small areas within and adjacent to the Suffolk Onshore Scheme. These areas were minimal and in the majority bracken. Small areas were present within land parcel 205 and 58.

C1.1 - Bracken – continuous

- 2.3.A.3.27 Areas of bracken were present in small areas within and adjacent to the Suffolk Onshore Scheme. These areas were minimal. Small areas were present within land parcel 205, 152 and 193.

A2.1 - Scrub - dense/continuous

- 2.3.A.3.28 Areas of dense scrub were present in small areas within and adjacent to the Suffolk Onshore Scheme. These areas are minimal. Small areas were present within land parcel 468, 193, and 137. 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

- 2.3.A.3.29 Scattered scrub was present in small areas within and adjacent to the Suffolk Onshore Scheme. These areas were minimal. Scattered scrub was present within land parcel 205, 193, 28, 58 and 152.

F1 – Swamp

- 2.3.A.3.30 Areas of swamp were recorded within land parcel 205 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.

G1 - Standing water

- 2.3.A.3.31 Standing water was present within and immediately adjacent to the Suffolk Onshore Scheme in the form of ponds, wet ditches across the length of the Suffolk Onshore Scheme as well as drainage ditches and open water within the North Warren RSPB Reserve and SSSI. A large reservoir was present within the Suffolk Onshore scheme, within land parcel 58 and another southwest of land parcel 422 and east of 468.



Image 2.3.A.12 - G1 - Standing Water (TM432591)

G2 Running water

- 2.3.A.3.32 The River Fromus runs north-south through land parcel 468 in the west of the Suffolk Onshore Scheme. A small section (<100 m) of the Hundred River was present within the Suffolk Onshore Scheme and was located adjacent to the boundary of land parcel 28. Other small flowing wet ditches may be present within and immediately adjacent to the Suffolk Onshore Scheme but due to access restrictions has yet to be confirmed.

J2.6 – Dry ditch

- 2.3.A.3.33 Dry ditches were present along some field margins within and adjacent to the Suffolk Onshore Scheme.

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

2.3.A.3.34

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. 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.



Image 2.3.A.13 - Coastal habitats (TM468582)

J4 - Bare ground

2.3.A.3.35

Bare ground was present throughout the Suffolk Onshore Scheme as farmland tracks between fields.

Z99 – Hardstanding

2.3.A.3.36

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

J3.6 – Buildings

2.3.A.3.37

Buildings were present within and adjacent to the Suffolk Onshore Scheme. The majority of buildings have not been fully assessed at this point. However, a disused tower was present within land parcel 193 showed signs of barn owl roosting.



Image 2.3.A.14 - J3.6 – Buildings (TM460583)

Hedgerows

2.3.A.3.38 Hedgerows were present throughout the Suffolk Onshore Scheme, and many crossed the cable route. The hedgerows are split into several categories depending on quality and are discussed below:

J2.1.2 - Intact hedge - species-poor

2.3.A.3.39 Hedgerows within this category did not present gaps. A hedgerow within land parcel 58 which crosses the cable corridor was described to be hawthorn dominant and leggy, overgrown into the poplar woodland to the east.

J2.2.1 - Defunct hedge - native species-rich

2.3.A.3.40 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

2.3.A.3.41 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

2.3.A.3.42 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

2.3.A.3.43 A species rich hedgerow with trees was recorded separating land parcel 421 and 91 north of the converter 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 converter 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.

Hedgerows Condition Assessment

2.3.A.3.44

The hedgerows within and immediately adjacent to the Suffolk Onshore Scheme typically acted as the margins for the arable fields present. Using the criteria set out in the Hedgerow Regulations 1997 (Ref 2.3.6) the protected status of these hedgerows as well as their significance to the landscape were determined. Table below contains the results of these condition assessment. **Note:** not all areas have been accessed to undertake hedgerow conditions assessments.

Table 2.3.A.4: Hedgerow assessment results

Parcel	Hedgerow ID no.	Hedgerow type	Description
421	H1-1	J2.3.2 - Hedge with trees - species-poor	Hedgerow was defunct with more gaps along the eastern end. Hedgerow species included ash, dogwood, dog rose, grey willow, field maple, goat willow, beech and hawthorn. With a ground flora of bramble, cleavers, hogweed, dock, cut-leaved cranesbill, scentless mayweed (<i>Tripleurospermum inodorum</i>), bristly ox-tongue (<i>Helminthotheca echioides</i>), mayweed (<i>Tripleurospermum sp.</i>), field horsetail (<i>Equisetum arvense</i>), cocks foot, perennial rye grass, false oatgrass, Italian rye grass (<i>Lolium multiflorum</i>), and barren brome (<i>Bromus sterilis</i>).
91	H1-2	J2.3.1 - Hedge with trees - native species-rich	Hedgerow species included field maple, hazel, hawthorn, elder, spindle, and dogwood. Ground flora as H1-1 above.
421	H1-3	J2.3.1 - Hedge with trees - native species-rich	Located alongside grassland. The hedgerow was defunct with mature trees (oak and ash) every few metres. There was no real ground flora, the grassland Extended to the base of the hedge and there was a ditch present on the north side. Species included field maple, hawthorn, oak, laurel, rose, sycamore, and ash.
91	H1-4	J2.3.1 - Hedge with trees - native species-rich	Located alongside grassland. The hedgerow was defunct with mature trees (oak and ash) every few metres. There was no real ground flora, the grassland Extended to the base of the hedge and

Parcel	Hedgerow ID no.	Hedgerow type	Description
			there was a ditch present on the north side. Species included field maple, hawthorn, oak, laurel, rose, sycamore, and ash.
91	H1-5	J2.1.2 - Intact hedge - species-poor	Hedgerow was intact with hedgerow species including dog rose, blackthorn and elder. Ground flora included white campion (<i>Silene latifolia</i>), bracken and ragwort (<i>Jacobaea vulgaris</i>)
91	H1-6	J2.1.2 - Intact hedge - species-poor	Hedgerow was intact, with the bottom flailed and a dry ditch on the north side. Hedgerow species included hazel and field maple. Ground flora as H1-5 above.
91	H1-7	J2.1.2 - Intact hedge - species-poor	Hedgerow was intact with few species and more heavily flailed than other hedgerows within the land parcel.
58	H2-1	J2.2.2 - Defunct hedge - species-poor	Hedgerow was defunct dominated with elm and field maple with elder and hawthorn. Ground flora consisted of bracken and bramble.
58	H2-2	J2.2.2 - Defunct hedge - species-poor	Hedgerow was defunct and field maple dominated. Ground flora was dominated by bracken and bramble with mugwort.
58	H2-3	J2.1.2 - Intact hedge - species-poor	Hedgerow was intact and dominated with field maple. The ground flora had abundant bracken and hogweed.
58	H2-4	J2.2.2 - Defunct hedge - species-poor	Hedgerow was defunct with lots of gaps and in places mainly tall ruderals. Hedgerow species included blackthorn, hawthorn, hazel, and field maple with a ground flora of nettle hogweed, cleavers, mugwort, bramble, bracken, creeping thistle, mayweed and Alexander's.
58	H2-5	J2.3.2 - Hedge with trees - species-poor	Hedgerow species included hawthorn, blackthorn, dogwood, oak, field maple and rose. With a ground flora of nettle, mallow, hogweed, red dead nettle, and white bryony.
58	-	J2.3.2 - Hedge with trees - species-poor	Hedgerow species included hawthorn, blackthorn, dogwood, oak, field maple and rose. With a ground flora of nettle, mallow, hogweed, red dead nettle, and white bryony.
58	H3-1	J2.2.2 -	Newly planted hedgerow almost entirely

Parcel	Hedgerow ID no.	Hedgerow type	Description
		Defunct hedge - species-poor	hawthorn. Ground flora of neutral grasses, with mallow, ragwort, dandelion (<i>Taraxacum officinale</i>), ribwort plantain (<i>Plantago lanceolata</i>) and mugwort.
58	-	J2.1.2 - Intact hedge - species-poor	Newly planted hedge with hawthorn, blackthorn, field maple and dogwood
58	H3-2	J2.2.2 - Defunct hedge - species-poor	A defunct hedgerow with hawthorn. Ground flora consisted of bramble, Alexander's, mugwort, white campion, red dead nettle, ragwort, dandelion, teasel, dock, cock's foot, barren brome, perennial ryegrass and creeping buttercup (<i>Ranunculus repens</i>).
58	H3-3	J2.2.2 - Defunct hedge - species-poor	A defunct hedgerow with hawthorn and elm and scot's pine. The ground flora was dominated by bracken with ragwort, red dead nettle, viper's bugloss, and bramble.
58	H3-4	J2.2.2 - Defunct hedge - species-poor	A defunct hedgerow with disturbed ground flora including frequent hogweed, nettle and dock.
58/137	-	J2.1.2 - Intact hedge - species-poor	Hedgerow overgrown and leggy, functioning more as dense scrub than hedgerow.

Summary of Habitats by Land Parcel

2.3.A.3.45 The table below highlights the areas of habitats within each land parcel within the Suffolk Onshore Scheme.

Table 2.3.A.5: Habitat summary within draft Order Limits by land parcel.

Parcel	Area access for survey	Habitat Classification	Approximate areas within Suffolk Onshore Scheme
1 (1.3 ha) ⁷	No access aerial mapping only ⁸	B6 – Poor semi-improved grassland	0.7 ha
		J1.1 – Cultivated/disturbed land – arable	0.6 ha

⁷ Area of land parcel within the DF2 RLB.

⁸ No access to land parcels, areas within land parcel were mapped using high definition aerial drone photography and are yet to be accessed to ground truth the habitats.

Parcel	Area access for survey	Habitat Classification	Approximate areas within Suffolk Onshore Scheme
		A3.1 - Broadleaved parkland/scattered trees	112 m
		J2.3.2 - Hedge with trees - species-poor	55 m
2 (4.6 ha)	No access aerial mapping only	A3.1 - Broadleaved parkland/scattered trees	0.1 ha
		B2.2 - Neutral grassland - semi-improved	0.1 ha
		B6 - Poor semi-improved grassland	<0.1 ha
		J1.1 - Cultivated/disturbed land - arable	4.3 ha
		J5 - Other habitat	<0.1 ha
		J2.3.2 - Hedge with trees - species-poor	332 m
		J2.6 - Dry ditch	55 m
3 (14 ha)	No access aerial mapping only	A1.1.1 - Broadleaved woodland - semi-natural	<0.1 ha
		G2 - Running water	<0.1 ha
		J1.1 - Cultivated/disturbed land - arable	14.1 ha
		G2 - Running water	472 m
		J2.1.2 - Intact hedge - species-poor	110 m
		J2.2.2 – Defunct hedge – species-poor	93 m
		J2.3.2 - Hedge with trees - species-poor	445 m
4 (2.3ha)		J1.1 - Cultivated/disturbed land - arable	2.3 ha
		J2.6 – Dry ditch	66 m
5 (3.4 ha)	No access aerial mapping only	J1.1 - Cultivated/disturbed land - arable	3.4 ha
		J4 - Bare ground	<0.1 ha
		G2 – Running water	232 m
7		J1.1 - Cultivated/disturbed land – arable	1.1 ha

Parcel	Area access for survey	Habitat Classification	Approximate areas within Suffolk Onshore Scheme
(1.1 ha)	No access aerial mapping only	J2.1.2 - Intact hedge - species-poor	140 m
13 (28.7 ha)	No access aerial mapping only	B6 - Poor semi-improved grassland	<0.1 ha
		G1 - Standing water	<0.1 ha
		J1.1 - Cultivated/disturbed land - arable	28.4 ha
		J4 - Bare ground	0.3 ha
		J5 - Other habitat	0.1 ha
		Z99 - Hardstanding	0.4 ha
		G2 - Running water	417 m
		J2.1.2 - Intact hedge - species-poor	907 m
		J2.2.2 - Defunct hedge - species-poor	186 m
18 (0.1 ha)	No access aerial mapping only	J1.1 - Cultivated/disturbed land - arable	0.1 ha
		Z99 - Hardstanding	<0.1 ha
20 (9.7 ha)	No access aerial mapping only	B2.2 - Neutral grassland - semi-improved	0.1 ha
		J1.1 - Cultivated/disturbed land - arable	9.4 ha
		J4 - Bare ground	0.1 ha
		J5 - Other habitat	0.1 ha
		A3.1 - Broadleaved parkland/scattered trees	98 m
		J2.1.2 - Intact hedge - species-poor	137 m
		J2.2.2 - Defunct hedge - species-poor	368 m
J2.3.2 - Hedge with trees - species-poor	7 m		
25		Unmapped areas	0.3 ha

Parcel	Area access for survey	Habitat Classification	Approximate areas within Suffolk Onshore Scheme
(25 ha)	No access aerial mapping only	B4 - Improved grassland	0.2 ha
		J1.1 - Cultivated/disturbed land - arable	24.2 ha
		J5 - Other habitat	0.1 ha
		Z99 – Hardstanding	0.3 ha
		J2.1.2 - Intact hedge - species-poor	798 m
		J2.3.2 - Hedge with trees - species-poor	165 m
28 (22.1 ha)	No access aerial mapping only	A1.1.1 - Broadleaved woodland - semi-natural	0.1 ha
		B2.2 - Neutral grassland - semi-improved	<0.1 ha
		B4 - Improved grassland	0.5 ha
		B6 - Poor semi-improved grassland	<0.1 ha
		G1 - Standing water	0.1 ha
		J1.1 - Cultivated/disturbed land - arable	15.8 ha
		J1.2 - Cultivated/disturbed land - amenity grassland	5.0 ha
		J2.1.2 - Intact hedge - species-poor	<0.1 ha
		J3.6 - Buildings	<0.1 ha
		J4 - Bare ground	0.2 ha
		J5 - Other habitat	0.2 ha
		Z99 - Hardstanding	0.2 ha
		J2.1.2 - Intact hedge - species-poor	400 m
J2.6 - Dry ditch	77 m		
41 (0.1 ha)	No access aerial mapping	J4 - Bare ground	<0.1 ha
		J5 - Other habitat	0.1 ha
58 (56.3 ha)	On ground survey undertaken	A1.1.1 - Broadleaved woodland - semi-natural	0.3 ha
		A1.1.2 - Broadleaved woodland - plantation	<0.1 ha

Parcel	Area access for survey	Habitat Classification	Approximate areas within Suffolk Onshore Scheme
		A2.1 - Scrub - dense/continuous	<0.1 ha
		B2.2 - Neutral grassland - semi-improved	3.5 ha
		B6 - Poor semi-improved grassland	0.6 ha
		C3.1 - Other tall herb and fern - ruderal	0.1 ha
		G1 - Standing water	5.6 ha
		J1.1 - Cultivated/disturbed land - arable	41.3 ha
		J1.2 - Cultivated/disturbed land - amenity grassland	1.8 ha
		J2.1.2 - Intact hedge - species-poor	0.2 ha
		J3.6 - Buildings	<0.1 ha
		J4 - Bare ground	0.9 ha
		J5 - Other habitat	1.6 ha
		Z99 - Hardstanding	0.3 ha
		A3.1 - Broadleaved parkland/scattered trees	826 m
		A3.2 - Coniferous parkland/scattered trees	442 m
		J2.1.2 - Intact hedge - species-poor	1,072 m
		J2.2.2 - Defunct hedge - species-poor	2,052 m
		J2.3.2 - Hedge with trees - species-poor	369 m
89 (22.8 ha)	No access aerial mapping only	A1.1.1 - Broadleaved woodland - semi-natural	<0.1 ha
		A1.2.2 - Coniferous woodland - plantation	4.1 ha
		B2.2 - Neutral grassland - semi-improved	<0.1 ha
		B4 - Improved grassland	0.3 ha
		B6 - Poor semi-improved grassland	<0.1 ha

Parcel	Area access for survey	Habitat Classification	Approximate areas within Suffolk Onshore Scheme
		G2 - Running water	0.2 ha
		J1.1 - Cultivated/disturbed land - arable	6.7 ha
		J4 - Bare ground	0.4 ha
		J5 - Other habitat	11 ha
		Z99 - Hardstanding	0.1 ha
		A3.1 - Broadleaved parkland/scattered trees	121 m
		J2.2.2 - Defunct hedge - species-poor	98 m
		J2.3.2 - Hedge with trees - species-poor	98 m
		J2.6 - Dry ditch	384 m
91 (20.9 ha)	On ground survey undertaken	A1.1.1 - Broadleaved woodland - semi-natural	2.3 ha
		A1.1.2 - Broadleaved woodland - plantation	0.4 ha
		A1.2.2 - Coniferous woodland - plantation	<0.1 ha
		B2.2 - Neutral grassland - semi-improved	2.3 ha
		B6 - Poor semi-improved grassland	0.5 ha
		G1 - Standing water	0.1 ha
		J1.1 - Cultivated/disturbed land - arable	14.6 ha
		J3.6 - Buildings	<0.1 ha
		J4 - Bare ground	0.1 ha
		J5 - Other habitat	0.2 ha
		Z99 - Hardstanding	0.2 ha
		J2.1.2 - Intact hedge - species-poor	421 m
		J2.3.1 - Hedge with trees - native species-rich	99 m
		J2.3.2 - Hedge with trees - species-poor	298 m

Parcel	Area access for survey	Habitat Classification	Approximate areas within Suffolk Onshore Scheme
		J2.6 - Dry ditch	66 m
137 (0.9 ha)	On ground survey undertaken	A1.1.2 - Broadleaved woodland - plantation	0.6 ha
		B1.2 - Acid grassland - semi-improved	<0.1 ha
		J4 - Bare ground	0.1 ha
		Z99 - Hardstanding	0.1 ha
		J2.2.1 - Defunct hedge - native species-rich	23 m
152 (10 ha)	On ground survey undertaken	A1.1.2 - Broadleaved woodland - plantation	0.1 ha
		A1.3.2 - Mixed woodland - plantation	<0.1 ha
		A2.1 - Scrub - dense/continuous	<0.1 ha
		A3.2 - Coniferous parkland/scattered trees	<0.1 ha
		B1.2 - Acid grassland - semi-improved	7.4 ha
		B6 - Poor semi-improved grassland	2.1ha
		J1.1 - Cultivated/disturbed land - arable	<0.1 ha
		J2.1.2 - Intact hedge - species-poor	0.2 ha
		J4 - Bare ground	<0.1 ha
		Z99 - Hardstanding	<0.1 ha
		J2.1.2 - Intact hedge - species-poor	410 m
J2.2.1 - Defunct hedge - native species-rich	139 m		
161 (<0.1 ha)	On ground survey undertaken	A2.1 - Scrub - dense/continuous	<0.1 ha
		A3.2 - Coniferous parkland/scattered trees	<0.1 ha
		J1.2 - Cultivated/disturbed land - amenity grassland	<0.1 ha

Parcel	Area access for survey	Habitat Classification	Approximate areas within Suffolk Onshore Scheme
		Z99 - Hardstanding	<0.1 ha
		J2.1.2 - Intact hedge - species-poor	31 m
162 (0.6 ha)	No access aerial mapping only	A1.1.1 - Broadleaved woodland - semi-natural	0.1 ha
		A2.1 - Scrub - dense/continuous	0.4 ha
		A3.2 - Coniferous parkland/scattered trees	<0.1 ha
		B1.2 - Acid grassland - semi-improved	0.1 ha
		B6 - Poor semi-improved grassland	<0.1 ha
		Z99 - Hardstanding	<0.1 ha
		J2.1.2 - Intact hedge - species-poor	48 m
164 (<0.1 ha)	No access aerial mapping only	A3.1 - Broadleaved parkland/scattered trees	<0.1 ha
		B1.2 - Acid grassland - semi-improved	<0.1 ha
187 (<0.1ha)	No access aerial mapping only	C1.1 - Bracken - continuous	<0.1 ha
192 (0.5 ha)	Access only via PROW	A3.2 - Coniferous parkland/scattered trees	<0.1 ha
		B2.2 - Neutral grassland - semi-improved	0.2 ha
		B4 - Improved grassland	<0.1 ha
		C1.1 - Bracken - continuous	0.1 ha
		C3.1 - Other tall herb and fern - ruderal	<0.1 ha
		J4 - Bare ground	0.1 ha
		Z99 - Hardstanding	<0.1 ha
		J2.3.2 - Hedge with trees - species-poor	22 m

Parcel	Area access for survey	Habitat Classification	Approximate areas within Suffolk Onshore Scheme
193 (10.1 ha)	On ground survey undertaken	A2.1 - Scrub - dense/continuous	<0.1 ha
		A3.1 - Broadleaved parkland/scattered trees	0.2 ha
		B1.2 - Acid grassland - semi-improved	8.9 ha
		C1.1 - Bracken - continuous	0.6 ha
		J3.6 - Buildings	<0.1 ha
		J5 - Other habitat	0.3 ha
		J2.2.2 - Defunct hedge - species-poor	327 m
205 (25.2 ha)	Access only via PROW	Area not mapped	0.5 ha
		A2.1 - Scrub - dense/continuous	0.3 ha
		A3.2 - Coniferous parkland/scattered trees	0.2 ha
		B1.2 - Acid grassland - semi-improved	2.4 ha
		B2.2 - Neutral grassland - semi-improved	2.7 ha
		B5 - Marsh/marshy grassland	14.5 ha
		C3.1 - Other tall herb and fern - ruderal	0.1 ha
		F1 - Swamp	0.9 ha
		G1 - Standing water	3.1 ha
		G2 - Running water	<0.1 ha
		H8.4 - Coastal grassland	<0.1 ha
		J1.3 - Cultivated/disturbed land - ephemeral/short perennial	<0.1 ha
		J2.1.2 - Intact hedge - species-poor	0.1 ha
		J3.6 - Buildings	<0.1 ha
		J4 - Bare ground	0.1 ha
J5 - Other habitat	0.2 ha		
Z99 - Hardstanding	<0.1 ha		
G2 - Running water	246 m		

Parcel	Area access for survey	Habitat Classification	Approximate areas within Suffolk Onshore Scheme
		J2.1.2 - Intact hedge - species-poor	279 m
212 (2.9 ha)	On ground survey undertaken	A2.1 - Scrub - dense/continuous	2.1 ha
		F1 - Swamp	0.2 ha
		H8.4 - Coastal grassland	0.5 ha
		J4 - Bare ground	0.1 ha
		Z99 - Hardstanding	<0.1 ha
214 (6.7 ha)	Access only via PROW	A2.1 - Scrub - dense/continuous	0.1 ha
		H1.1 - Intertidal - mud/sand	0.6 ha
		H3 - Shingle above high tide mark	4.5 ha
		H6.5 - Dune grassland	0.2 ha
		H6.6 - Dune heath	0.3 ha
		H8.4 - Coastal grassland	0.4 ha
		J4 - Bare ground	0.5 ha
215 (1.2 ha)	Access only via PROW	Area not mapped	0.8 ha
		H1.1 - Intertidal - mud/sand	0.4 ha
		H3 - Shingle above high tide mark	<0.1 ha
217 (0.5 ha)	On ground survey undertaken	A2.1 - Scrub - dense/continuous	0.4 ha
		F1 – Swamp	<0.1 ha
		H8.4 - Coastal grassland	0.1 ha
		J4 - Bare ground	<0.1 ha
		Z99 - Hardstanding	<0.1 ha
221 (2.3 ha)	On ground survey undertaken	Area not mapped	0.1 ha
		H1.1 - Intertidal - mud/sand	0.3 ha
		H3 - Shingle above high tide mark	0.6 ha
		H6.6 - Dune heath	1.0 ha
		H8.4 - Coastal grassland	0.2 ha
		J4 - Bare ground	0.2 ha
421		A1.1.1 - Broadleaved woodland - semi-natural	0.1 ha

Parcel	Area access for survey	Habitat Classification	Approximate areas within Suffolk Onshore Scheme
(32.1 ha)	On ground survey undertaken	A1.1.2 - Broadleaved woodland - plantation	<0.1 ha
		B2.2 - Neutral grassland - semi-improved	0.1 ha
		G1 - Standing water	<0.1 ha
		J1.1 - Cultivated/disturbed land - arable	31.8 ha
		J4 - Bare ground	<0.1 ha
		Z99 - Hardstanding	<0.1 ha
		G2 - Running water	159 m
		J2.3.1 - Hedge with trees - native species-rich	350 m
		J2.6 - Dry ditch	358 m
422 (39.5 ha)	On ground survey undertaken	B2.2 - Neutral grassland - semi-improved	0.1 ha
		J1.1 - Cultivated/disturbed land - arable	39.3 ha
		Z99 - Hardstanding	<0.1 ha
		J2.6 - Dry ditch	249 m
456 (2.1 ha)	No access aerial mapping only	J1.1 - Cultivated/disturbed land - arable	2.1 ha
467 (0.3 ha)	On ground survey undertaken	B2.2 - Neutral grassland - semi-improved	<0.1 ha
		B4 - Improved grassland	<0.1 ha
		J1.1 - Cultivated/disturbed land - arable	1 ha
		J4 - Bare ground	0.1 ha
		Z99 - Hardstanding	<0.1 ha
468 (6.6 ha)	On ground survey undertaken	Area not mapped	0.1 ha
		A1.1.1 - Broadleaved woodland - semi-natural	<0.1 ha
		A1.1.2 - Broadleaved woodland - plantation	1.3 ha
		A2.1 - Scrub - dense/continuous	<0.1 ha

Parcel	Area access for survey	Habitat Classification	Approximate areas within Suffolk Onshore Scheme
		B2.2 - Neutral grassland - semi-improved	0.2 ha
		G2 - Running water	<0.1 ha
		J1.1 - Cultivated/disturbed land - arable	4.8 ha
		J2.6 - Dry ditch	<0.1 ha
584 (14.6 ha)	No access aerial mapping only	A1.1.1 - Broadleaved woodland - semi-natural	0.6 ha
		J1.1 - Cultivated/disturbed land - arable	13.5 ha
		J5 - Other habitat	0.5 ha
		Z99 - Hardstanding	<0.1 ha
585 (1.9 ha)	No access aerial mapping only	Area not mapped	0.3 ha
		A1.1.2 - Broadleaved woodland - plantation	0.1 ha
		A2.1 - Scrub - dense/continuous	0.5 ha
		B6 - Poor semi-improved grassland	0.3 ha
		J3.6 - Buildings	<0.1 ha
		J4 - Bare ground	0.6 ha
		J5 - Other habitat	0.2 ha
		Z99 - Hardstanding	<0.1 ha
		J2.3.2 - Hedge with trees - species-poor	446 m
586 (1.8 ha)	No access aerial mapping only	B4 - Improved grassland	1.8 ha
587 (9.3 ha)	No access aerial mapping only	A1.1.1 - Broadleaved woodland - semi-natural	1.0 ha
		G1 - Standing water	<0.1 ha
		G2 - Running water	<0.1 ha



Parcel	Area access for survey	Habitat Classification	Approximate areas within Suffolk Onshore Scheme
		J1.1 - Cultivated/disturbed land - arable	8.2 ha
		A3.1 - Broadleaved parkland/scattered trees	168 m
		G2 - Running water	174 m
		J2.3.2 - Hedge with trees - species-poor	292 m
137d (0.2 ha)	No access aerial mapping only	A1.1.2 - Broadleaved woodland - plantation	0.1 ha
		B1.2 - Acid grassland - semi-improved	<0.1 ha
		B2.2 - Neutral grassland - semi-improved	<0.1 ha
		B4 - Improved grassland	<0.1 ha
		J4 - Bare ground	0.1ha
		Z99 - Hardstanding	<0.1 ha
152a (<0.1 ha)	No access aerial mapping only	A3.2 - Coniferous parkland/scattered trees	<0.1 ha
		B6 - Poor semi-improved grassland	<0.1 ha
		Z99 - Hardstanding	<0.1 ha
205b (0.1 ha)	No access aerial mapping only	A2.1 - Scrub - dense/continuous	<0.1 ha
		G2 - Running water	<0.1 ha
		H8.4 - Coastal grassland	<0.1 ha
		J3.6 - Buildings	<0.1 ha
		J4 - Bare ground	<0.1 ha
		Z99 - Hardstanding	<0.1 ha
221a (<0.1ha)	Access only via PROW	H3 - Shingle above high tide mark	<0.1 ha
		H6.6 - Dune heat	<0.1 ha
		H8.4 - Coastal grassland	<0.1 ha
		J4 - Bare ground	<0.1 ha




Parcel	Area access for survey	Habitat Classification	Approximate areas within Suffolk Onshore Scheme
422a (<0.1 ha)	No access aerial mapping only	J1.1 - Cultivated/disturbed land - arable	<0.1 ha


Target Notes

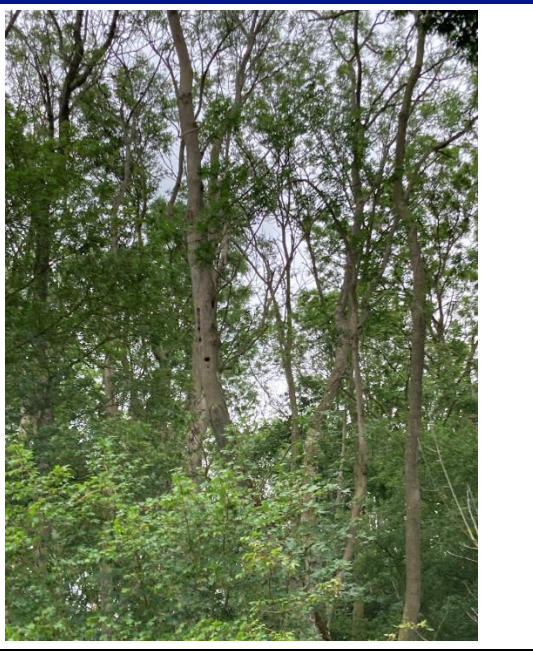

2.3.A.3.46 Target notes to highlight more closely habitat and species features are provided in Table 2.3.A.6.


Table 2.3.A.6: Target notes for habitats and species



Target Note ID	Parcel ID	Description	Photograph
587-1	587	River Fromus, low flows with exposed stoney bed. Mature line of trees, individual trees, aquatic habitats, water vole/otter potential.	
587-2	587	Broad-leaved woodland dominated by ash (<i>Fraxinus excelsior</i>) and oak (<i>Quercus robur</i>) with a barn owl box present in woodland edge and a dry pond. High Bat Roost Suitability. Possible dormouse in wood, scrub and/or habitat along railway. Adjacent habitat in scrub/grassland alongside railway suitable for reptiles.	





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</i> sp.), 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>).	
456-1	456	Shaded pond in woodland on site boundary next to road, suitable for great crested newt.	
422-1	422	Mammal run	No picture
422-2	422	Farm buildings with roost features 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 (<i>Acer campestre</i>), hazel dormouse record (National Biodiversity Network Atlas; Ref 2.3.10), possibly using hedge to north within Suffolk Onshore Scheme Boundary, likely bat roosts and an important bat commuting route north-south along hedge in Suffolk Onshore Scheme Boundary.	No picture




Target Note ID	Parcel ID	Description	Photograph
422-5	Woodland south of 422	Ash (<i>Fraxinus excelsior</i>) with multiple woodpecker holes, high bat roost potential.	
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 (<i>Urtica dioica</i>), meadow buttercup (<i>Ranunculus acris</i>), common bent (<i>Agrostis capillaris</i>).	
422-7	Woodland south of 422	Dry ditch in woodland	




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.	
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




Target Note ID	Parcel ID	Description	Photograph
421-5	421	Grassland strip with scattered scrub, bare ground, and tall ruderals.	
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	
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	
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.	





Target Note ID	Parcel ID	Description	Photograph
91-3	91	Large mammal run, likely badger. A waterbody within the woodland, with no vegetation - brown sludgy water. Unsuitable for great crested newts.	
91-4	91	Ash tree with high bat roost potential. At least four knotholes or woodpecker holes.	
91-7	91	Snuffle holes	




Target Note ID	Parcel ID	Description	Photograph
91-8	91	Brash area - trees thinned. unsuitable for dormice	
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	
91-11	91	Neutral grass margin 5 m species same as 91-10 and ditch	





Target Note ID	Parcel ID	Description	Photograph
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.	No picture
89-2	89	Badger prints - recorded in March 2021	
3-1	3	Very large veteran oak along hedge with 'High' bat roost potential (no access)	



Target Note ID	Parcel ID	Description	Photograph
58-1	58	Badger a scrape and path	
<p>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.</p>			
58-3	58	<p>Four veteran oaks all precautionary mod bat roost potential due to dense ivy and foliage, numerous knotholes and lifted bark on all of them.</p>	




Target Note ID	Parcel ID	Description	Photograph
58-4	58	Newly planted hedge	
58-5	58	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).	No picture
58-6	58	Pyramidal orchids within neutral semi-improved grassland around the reservoir.	




Target Note ID	Parcel ID	Description	Photograph
58-7	58	Badger latrine.	
58-8	58	A badger push under, also signs of deer going over the fence.	
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.	
58-11	58	Two Scot's pine, one beech and one ash tree. No bat roost features seen but the trees are mature specimens.	


Target Note ID	Parcel ID	Description	Photograph
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.	
152-2	152	Owl box within broadleaved woodland north of Aldeburgh golf course.	

Target Note ID	Parcel ID	Description	Photograph
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.	
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 agg.</i>), 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.	

Target Note ID	Parcel ID	Description	Photograph
		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.	
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	

Target Note ID	Parcel ID	Description	Photograph
		<p>(<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.</p>	
192-1	192	<p>Tall and short grassland, bracken and scrub on banks alongside path, suitable for reptiles, common lizard seen here.</p>	
192-2	192/205	<p>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.</p>	
205-1	205	<p>Acid grassland and scattered bracken and occasional common broom (<i>Cytisus scoparius</i>). Suitable for reptiles.</p>	

Target Note ID	Parcel ID	Description	Photograph
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.	
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.	

Target Note ID	Parcel ID	Description	Photograph
214-1	214	<p>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 officinarium</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 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 marinum</i>), Inland</p>	

Target Note ID	Parcel ID Description	Photograph
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closer to the road taller grassland with sea holly (*Eryngium maritimum*), crow garlic (*Allium vineale*), bird's-foot tre-foil (*Lotus corniculatus*), lady's bedstraw (*Galium verum*), Yorkshire fog (*Holcus lanatus*), red fescue (*Festuca rubra*). Lower plants are frequent with bryophytes including rough-stalked feather-moss (*Brachythecium rutabulum*), neat feather-moss (*Pseudoscleropodium purum*), great plait-moss (*Hypnum cupressiforme var lacunosum*), broom forkmoss (*Dicranium scoparium*), juniper haircap (*Polytrichum juniperum*) and capillary thread-moss (*Ptychostomum capillare*) with lichens including reindeer moss (*Cladonia portentosa*). Suitable for reptiles in more permanent habitats (grassland/scrub) closer to the road.

Protected and Notable Species

Badger

Desk study

- 2.3.A.3.47 There are nine recent records of badger (*Meles meles*) within 2 km of the Suffolk Onshore Scheme. Badgers are protected under the Protection of Badgers Act 1992 (Ref 2.3.5). The nearest of the records is from 2019 and is from within the Suffolk Onshore Scheme. The desk study identified records of setts and latrines.
- 2.3.A.3.48 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

- 2.3.A.3.49 Badger signs were recorded during walk over surveys including active sets (target notes 91-5, 91-6, 152-1) and disused sets (target note 421-2), badger runs (target notes 91-3, 58-8), latrines (target note 58-7), prints (target note 89-2), hairs at set entrances, remains (target note 152-4), and snuffle holes (target notes 91-7, 58-1). Signs of badger were present in the majority of accessible areas of the Suffolk Onshore Scheme and inaccessible areas were also deemed to be suitable for badger based on habitats viewed via aerial mapping.

Bats

Desk study

- 2.3.A.3.50 There are 98 recent records of bats within the 5 km of the Suffolk Onshore Scheme, including serotine (*Eptesicus serotinus*), Daubenton's (*Myotis daubentonii*), Natterer's (*Myotis nattereri*), Leisler's (*Nyctalus leisleri*), noctule (*Nyctalus noctula*), Nathusius' (*Pipistrellus nathusii*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), barbastelle bat (*Barbastella barbastellus*) and, brown long-eared bat (*Plecotus auritus*). The closest of these records was recorded 200 m south of Suffolk Onshore Scheme in 2018 and was a brown long-eared bat record. All other bat species were recorded within 400 m to 600 m of the Suffolk Onshore Scheme between 2015 and 2017, except for Nathusius's pipistrelle which the closest record was 1.1 km south of the Suffolk Onshore Scheme in 2014.
- 2.3.A.3.51 A number of habitats are suitable to support bat roosts including woodland and individual trees and buildings. Woodland, hedgerows, grassland, arable margins, and water features (static and running), including marginal habitats such as reedbed, are all suitable bat foraging sites.

Field survey



- 2.3.A.3.52 Where accessible bat roost suitability surveys were undertaken on individual trees, trees in hedgerows and trees on the face of woodland blocks as well as buildings within and immediately adjacent to the Suffolk Onshore Scheme. Trees and buildings with low to high suitability for roosting bats are shown in the table





below. All other trees within the Suffolk Onshore Scheme (where parcels have been accessible) are deemed negligible. Areas of inaccessible land parcels are still to be surveyed.





2.3.A.3.53 Linear features including extensive hedgerows, lines of trees and pockets of woodland throughout and immediately adjacent to the Suffolk Onshore Scheme provide commuting routes for bats. Water features such as the reservoir in parcel 58 and west of parcel 468 are also suitable bat foraging areas.


2.3.A.3.54 The table below highlights the suitability (low, moderate or high) for each tree or building deemed to have suitability for roosting bats.

Table 2.3.A.7: Bat roost suitability summary




Tree/building	Feature Description	Potential	Location	Relevant Target Note	Photograph
Ash	Multiple woodpecker holes	High	TM394623	422-5	
Standing deadwood	Hollow trunk	High	TM395623	422-8	






Tree/building	Feature Description	Potential	Location	Relevant Target Note	Photograph
Standing deadwood	Cracks and small cavities	Low	TM399621	421-3	
Ash	Two trees in hedgerow with knot holes and lifted bark	High	TM397620	91-1	
Ash	Four knotholes or woodpecker holes	High	TM402622	91-4	
Ash	One tree – deep cracks in bark	Low	TM424596	58-2	
Standing deadwood	Two ash trees large cavities and	High	TM424596	58-2	No picture





Tree/building	Feature Description	Potential	Location	Relevant Target Note	Photograph
	lifted bark and knotholes				
Oak	Some furled bark and knotholes	Low	TM424596	58-2	
Oak	Four veteran trees dense ivy and foliage, numerous knotholes and lifted bark	Moderate	TM433595	58-3	
Oak	Veteran tree	Moderate	TM434590	58-9	No picture
Ash	Two trees ivy and cracked and lifted bark	Moderate	TM434588	58-10	
Oak	Two trees ivy and cracked and lifted bark	Moderate	TM434588	58-10	Picture as above.
Ash	Three veteran trees woodpecker holes and splits in bark, with deadwood cavities	High	TM438591	58-12	

Tree/building	Feature Description	Potential	Location	Relevant Target Note	Photograph
Corsican pine	Line of mature trees with lifted bark, wound holes	Moderate	TM461585	192-2	
Sessile oak	lifted bark and ivy	Moderate	TM400630	T1-1	
Oak	Large woodpecker hole 4m high, second knothole same height with opening to the west	Moderate	TM397619	T1-8	
Oak	Cavity in folded bark 2m high and ivy	Moderate	TM399621	T1-7	

Tree/building	Feature Description	Potential	Location	Relevant Target Note	Photograph
Oak	One small cavity 3 m high on east side	Low	TM399621	T1-6	
Oak	Obscured by ivy	Low	TM400623	T1-5	
Oak	Obscured by ivy	Low	TM400623	T1-4	

Tree/building	Feature Description	Potential	Location	Relevant Target Note	Photograph
Oak	Veteran tree with dense ivy and large cavity in trunk	High	TM400625	T1-3	
Oak	Not assessed in detail due to busy road	Low	TM424599	-	No Picture
Oak	Dense ivy	Low	TM423597	-	
Oak	-	Moderate	TM427595	-	

Tree/building	Feature Description	Potential	Location	Relevant Target Note	Photograph
Oak	Lifted bark on branch 8m high east side	Low	TM427595	-	
Oak	-	Low	TM428597	-	
Oak	Multiple woodpecker holes, lifted bark and cavities in trunk under split bark	High	TM430595	-	
Sessile Oak	One cavity on damaged branch on west side and cracked bark on branch on east side both 4m high	Moderate	TM430595	-	
Oak	Multiple oak in line, few features, some lifted bark	Low	TM433595	-	

Tree/building	Feature Description	Potential	Location	Relevant Target Note	Photograph
Sycamore, Oak and Ash	Line of veteran trees	High	TM438591	-	
Oak	Two large woodpecker holes and cracks in dead branches	High	TM431592	-	
Pedunculate oak	Two large cavities unknown depth in main trunk	Moderate	TM431592	-	
Disused building	Inaccessible Numerous slipped tiles, open windows, loft area.	High	TM467583	205-4	

Hazel Dormouse

Desk study

- 2.3.A.3.55 No recent records of hazel dormouse (*Muscardinus avellana*) were returned in the desk study within the 2 km of the Suffolk Onshore Scheme.

Field survey

- 2.3.A.3.56 There is suitable habitat for hazel dormouse along the length of the Suffolk Onshore Scheme which includes woodland and hedgerow, within and adjacent to the Suffolk Onshore Scheme. Species specific surveys were not completed during this walk over, field signs of this species are generally limited to nests and discarded nuts, where field signs are seen they are recorded in target notes, however no field signs do not constitute absence. Further surveys for presence absence will be undertaken based on habitat suitability.

Otter

Desk study

- 2.3.A.3.57 Two recent records of otter (*Lutra lutra*) were returned within 2 km of the Suffolk Onshore Scheme. The closest record was 1.5 km away from the Suffolk Onshore Scheme and was noted in 2015.

Field survey

- 2.3.A.3.58 The River Fromus has potential suitability otters as well as the Hundred River. Small lengths of both rivers run through the Suffolk Onshore Scheme. The wetland habitat within the North Warren RSPB reserve also has potential suitability for otter. Species specific surveys for this species were not completed during this walk over, surveyors remained 2 m from water courses at all times, 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. Further surveys for presence absence will be undertaken based on habitat suitability.

Water vole

Desk study

- 2.3.A.3.59 There are 31 recent records of water vole (*Arvicola amphibius*) within 2 km of the Suffolk Onshore Scheme. The closest of which was within 500 m of the Suffolk Onshore Scheme in 2015. Water vole have been recorded within the North Warren RSPB Reserve (within the Suffolk Onshore Scheme) prior to 2012.

Field survey

- 2.3.A.3.60 The River Fromus has potential suitability water vole as well as the Hundred River. Small lengths of both rivers run through the Suffolk Onshore Scheme. The wetland habitat within the North Warren RSPB Reserve also has suitability for water vole and has previous records highlighted in the desk study. Species

specific surveys for this species were not completed during this walk over, surveyors remained 2 m from water courses at all times, 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. Further surveys for presence absence will be undertaken based on habitat suitability.

Great Crested Newt

Desk study

- 2.3.A.3.61 There are ten recent records of great crested newt (*Triturus cristatus*) within the Survey Area, the closest of which was within 150 m of the Suffolk Onshore Scheme in 2020.

Field survey

- 2.3.A.3.62 There are a number of ponds and suitable terrestrial habitat located within and adjacent to the Suffolk Onshore Scheme. 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. Further surveys for presence absence will be undertaken based on habitat suitability. Suitable terrestrial habitat includes hedgerows, woodland, rough grassland, and scrub located around ponds.

Reptiles

Desk study

- 2.3.A.3.63 There are 23 recent records of common lizard (*Zootoca vivipara*), 10 of slow worm (*Anguis fragilis*), 17 of adder (*Vipera berus*) and 17 of grass snake (*Natrix helvetica*) within 2 km of the Suffolk Onshore Scheme. The closest record of adder was located 200 m north of the Suffolk Onshore Scheme in 2015, with grass snake 200 m south within the same year. The closest record of common lizard was recorded in 2017, 300 m north of the Suffolk Onshore Scheme and slow worm in 2015, 1.8 km north.

Field survey

- 2.3.A.3.64 Suitable habitat for common reptiles is present across the Suffolk Onshore Scheme, including grassland, scrub, woodland edges, arable margins, wet and dry ditches and areas around ponds. The Sandlings SPA, immediately adjacent to the Suffolk Onshore Scheme, also has suitable habitat including heathland, for adder. A dead grass snake was observed within the plantation woodland of land parcel 137, immediately adjacent to the Suffolk Onshore Scheme. An adder was also observed approximately 25 m north of land parcel 193 and the Suffolk Onshore Scheme, immediately adjacent to the Sandlings SPA. Finally, a common lizard was observed in land parcel 192, within the Suffolk Onshore Scheme.

Birds

Desk study

- 2.3.A.3.65 There were recent records for 104 bird species within 2 km of the Suffolk Onshore Scheme. These included 61 species listed either on Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) (HM Government, 1981), or under Annex 1 of the Birds Directive (2009/147/EC) (Ref 2.3.3), 29 species listed under Section 41 of the Natural Environment and Rural Communities Act 2006 (Ref 2.3.7) and a further 73 species on the Birds of Conservation Concern 5 (BoCC5) Red or Amber list (Ref 2.3.9).
- 2.3.A.3.66 The Alde, Ore and Butley Estuaries (SAC, SPA and Ramsar Site), Minsmere to Walberswick Heaths and Marshes (Ramsar Site, SPA and SAC), and Sandlings (SPA) all have significant ornithological value. Details of their designations and distance from the Suffolk Onshore Scheme are present in the Table 2.3.A.2 Statutory Designated Sites for Nature Conservation.

Field survey

- 2.3.A.3.67 There is habitat suitable for breeding and wintering birds across the Suffolk Onshore Scheme. These habitats include woodland, arable, arable margins, grassland, hedgerows and individual trees, wetlands, ditches and scrub. Several barn owl boxes were recorded in land parcels including 152 within and adjacent to the Suffolk Onshore Scheme, and signs of roosting barn owl were observed in a disused tower in land parcel 193 within the Suffolk Onshore Scheme. Bittern was observed during the walk over survey in land parcel 205 within the North Warren and RSPB reserve and SSSI.

Terrestrial Invertebrates

Desk study

- 2.3.A.3.68 There were 38 species with recent records within 2 km of the Suffolk Onshore Scheme. These include the legally protected silver-studded blue (*Plebejus argus*), white-letter hairstreak (*Satyrrium w-album*), and Norfolk aeshna (*Anaciaeschna isoceles*).
- 2.3.A.3.69 The closest record for silver-studded blue was 700 m north of the Suffolk Onshore Scheme in 2017. White-letter hairstreak was recorded 150 m south in 2013 and Norfolk aeshna 400 m south in 2018.

Field survey

- 2.3.A.3.70 There is suitable habitat for notable species of invertebrates across the Suffolk Onshore Scheme, including within grassland and arable margin, around ponds and woodland. No species-specific surveys were undertaken during the walk over. The majority of invertebrates require specialist identification and are not usually very visible on walk overs. Where field signs are seen they are recorded in target notes, however no field signs do not constitute absence. Further surveys for presence absence will be undertaken based on habitat suitability. Suitable terrestrial habitat includes hedgerows, woodland, rough grassland, and scrub located around ponds.

Aquatic Invertebrates

Desk study

- 2.3.A.3.71 No recent records for species of aquatic invertebrates were found within 2km of the Suffolk Onshore Scheme.

Field survey

- 2.3.A.3.72 There is suitable habitat for notable species of aquatic invertebrates within the North Warren RSPB Reserve and SSSI as well as within the River Fromus and the Hundred River both of which have small sections within the Suffolk Onshore Scheme. No species-specific surveys were undertaken during the walk over. The majority of aquatic invertebrates require specialist identification and are not usually very visible on walk overs, additionally surveyors kept 2 m from watercourses at all times. Where field signs were seen they were recorded in target notes, however no field signs do not constitute absence. Further surveys for presence absence will be undertaken based on habitat suitability.

Fish

Desk study

- 2.3.A.3.73 No fish species were recorded within the desk study within 2 km of the Suffolk Onshore Scheme in the last 10 years.

Field survey

- 2.3.A.3.74 There is suitable habitat for notable species of fish within the North Warren RSPB Reserve and SSSI as well as within the River Fromus and the Hundred River both of which have small sections within the Suffolk Onshore Scheme. No species-specific surveys were undertaken during the walk over. The majority of fish species are not usually very visible on walk overs, additionally surveyors kept 2 m from watercourses at all times. Where field signs were seen they were recorded in target notes, however no field signs do not constitute absence. Further surveys for presence absence will be undertaken based on habitat suitability.

Notable Flora

Desk study

- 2.3.A.3.75 The data search returned records of two plant species; Bluebell (*Hyacinthoides non-scripta*) and Jersey Cudweed (*Gnaphalium luteoalbum*) which are listed on Schedule 8 of the Wildlife and Countryside Act (1981) as amended (Ref 2.3.4). Additionally records of mossy stonecrop (*Crassula tilleae*) which is a national scarce plant was also returned within the Desk Study from within 2 km of the Suffolk Onshore Scheme, across the last 10 years.

- 2.3.A.3.76 The closest record of mossy stonecrop was located 200m north of the Suffolk Onshore Scheme in 2014. The closest record of bluebell was located 300m north

of the Suffolk Onshore Scheme in 2014 and Jersey cudweed 1.3 km south in 2013.

2.3.A.3.77 A further 10 species of nationally scarce plants are present within 2 km of the Suffolk Onshore Scheme within the last 10 years.

Field survey

2.3.A.3.78 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 parcel 58, 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 within the Suffolk Onshore Scheme, there is a large area of mossy stonecrop a nationally scarce plant. Where field signs are seen they are recorded in target notes, however no field signs do not constitute absence. Further surveys for presence absence will be undertaken based on habitat suitability.

Other Notable Species

Desk study

2.3.A.3.79 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 within the last 10 years.

2.3.A.3.80 The closest record for polecat was located 50 m south of the Suffolk Onshore Scheme in 2019, with common toad recorded 50 m north in 2014 and smooth newt 400 m north in 2019. West European hedgehog was identified present within the Suffolk Onshore Scheme in 2014.

Field survey

2.3.A.3.81 The Suffolk Onshore Scheme 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. Further surveys for presence absence will be undertaken based likely impact and habitat suitability.

Invasive Non-Native Species

Desk study

2.3.A.3.82 The data search returned records of ten plant species which are listed on Schedule 9 of the Wildlife and Countryside Act (1981) (Ref 2.3.4) as amended from within 2 km of the Suffolk Onshore Scheme across the last 10 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*) – 1.3 km north in 2017;
- Himalayan Balsam (*Impatiens glandulifera*) – 300 m north in 2014;
- Rhododendron (*Rhododendron ponticum*) – 1.3 km north in 2017;
- Yellow Archangel (*Lamiastrum galeobdolon subsp. Argentatum*) – 500 m south in 2014;
- Japanese Rose (*Rosa rugosa*) – 300 m south in 2018;
- New Zealand Pigmyweed (*Crassula helmsii*) – 1.3 km north in 2017; and
- Virginia Creeper (*Parthenocissus quinquefolia*) – 2 km north in 2017.

Field survey

2.3.A.3.83

A full invasive non-native species survey was not undertaken during this walk over. Where invasive species were identified as part of the walk over these were recorded as target notes. Further survey will be based on likely impact and identified instances. Buddleia was identified within a hedgerow bordering the Suffolk Onshore Scheme in land parcel 152 (152-5) and Himalayan balsam was identified along the River Fromus.

2.3.A.4. References

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- Ref 2.3.10 - National Biodiversity Network Trust. Undated. National Biodiversity Network Atlas. Available at: <https://nbnatlas.org/> [Accessed 13 September 2023]

Annex A Species Data Records Summary

2.3.A.4.1 Table 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 boundary (5 km for bats).

Annex Table1: Summary of records for protected and notable species

Common name	Scientific name	Legally protected species	Species of principal importance	Other notable species	Present on Site	Present/potentially present in wider Zone of Influence	Latest record	Closest record
Amphibians								
Great crested newt	<i>Triturus cristatus</i>	Y	Y	-	-	Y	150 m, W, 2020	150 m, W, 2020
Common frog	<i>Rana temporaria</i>	Y	-	-	-	Y	276 m, NE, 2018	200 m, N, 2015
Common toad	<i>Bufo bufo</i>	Y	Y	-	-	Y	1.8 km, NE, 2018	50 m, N, 2014
Smooth newt	<i>Lissotriton vulgaris</i>	Y	-	-	-	Y	400 m, N, 2019	400 m, N, 2019
Birds								
Lesser redpoll	<i>Acanthis cabaret</i>	-	Y	-	-	Y	0.3 km, SW, 2017	0.3 km, SW, 2017
Common (mealy) redpoll	<i>Acanthis flammea</i>	-	-	Y	-	Y	0.7 km, S, 2017	0.3 km, SW, 2016
Common sandpiper	<i>Actitis hypoleucos</i>	-	-	Y	-	Y	300 m, S, 2016	1. km, S, 2017

Eurasian skylark	<i>Alauda arvensis</i>	-	Y	-	-	Y	250 m, SW, 2021	250 m, SW, 2021
Razorbill	<i>Alca torda</i>	-	-	Y	-	Y	680 m, S, 2015	1.4 km, N, 2017
Kingfisher	<i>Alcedo atthis</i>	Y	-	-	-	Y	300 m, S, 2017	300 m, S, 2017
Pintail	<i>Anas acuta</i>	Y	-	-	Y	Y	250 m, S, 2018	Within Suffolk Onshore Scheme, 2016
Teal	<i>Anas crecca</i>	-	-	Y	-	Y	250 m, S, 2018	250 m, S, 2018
Mallard	<i>Anas platyrhynchos</i>	-	-	Y	-	Y	300 m, N, 2016	260 m, E, 2016
White-fronted goose	<i>Anser Albifrons</i>	-	-	Y	Y	Y	Within Suffolk Onshore Scheme, 2018	Within Suffolk Onshore Scheme, 2018
European greater white-fronted goose	<i>Anser albifrons albifrons</i>	-	Y	-	Y	Y	300 m, S, 2016	Within Suffolk Onshore Scheme, 2016
Greylag goose	<i>Anser anser</i>	Y	-	-	Y	Y	Within Suffolk Onshore Scheme, 2021	Within Suffolk Onshore Scheme, 2021

Pink-footed goose	<i>Anser brachyrhynchus</i>	-	-	Y	-	Y	300 m, N, 2017	260 m, N, 2016
Bean goose	<i>Anser fabalis</i>	-	-	Y	-	Y	300 m, S, 2016	300 m, S, 2016
Water pipit	<i>Anthus spinoletta</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Tree pipit	<i>Anthus trivialis</i>	-	Y	-	-	Y	1.5 km, N, 2018	300 m, S, 2016
Meadow pipit	<i>Anthus pratensis</i>	-	-	Y	Y	Y	Within Suffolk Onshore Scheme, 2018	Within Suffolk Onshore Scheme, 2018
Swift	<i>Apus apus</i>	-	-	Y	Y	Y	400 m, N, 2021	Within Suffolk Onshore Scheme, 2019
Purple heron	<i>Ardea purpurea</i>	Y	-	-	-	Y	300 m, S, 2014	300 m, S, 2014
Turnstone	<i>Arenaria interpres</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Short-eared owl	<i>Asio Flammeus</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
pochard	<i>Aythya ferina</i>	-	-	Y	-	Y	300 m, SW, 2017	300 m, SW, 2017
scaup	<i>Aythya marila</i>	Y	Y	-	-	Y	0.5 km, N, 2016	0.5 km, N, 2016

Eurasian bittern	<i>Botaurus stellaris</i>	Y	Y	-	-	Y	1 km, N, 2019	300 m, S, 2017
Brent goose	<i>Branta bernicla</i>	-	-	Y	-	Y	1.8 km, S, 2017	300 m, S, 2016
Light-bellied brent goose	<i>Branta bernicla hrota</i>	-	-	Y	-	Y	1.8 km, S, 2017	300 m, S, 2015
Dark-bellied brent goose	<i>Branta bernicla bernicla</i>	-	Y	-	Y	Y	300 m, S, 2017	Within Suffolk Onshore Scheme, 2016
Barnacle goose	<i>Branta leucopsis</i>	-	-	Y	Y	Y	Within Suffolk Onshore Scheme, 2018	Within Suffolk Onshore Scheme, 2018
Goldeneye	<i>Bucephala clangula</i>	Y	-	-	-	Y	2 km, S, 2017	1.5 km, N, 2016
Eurasian stone-curlew	<i>Burhinus oedicephalus</i>	Y	Y	-	-	Y	1.5 km, NE, 2016	1.5 km, NE, 2016
Lapland bunting	<i>Calcarius lapponicus</i>	Y	-	-	-	Y	300 m, S, 2016	300 m, S, 2016
Sanderling	<i>Calidris alba</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Dunlin	<i>Calidris alpina</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Knot	<i>Calidris canutus</i>	-	-	Y	-	Y	1.8 km, S, 2017	300 m, S, 2014

Curlew sandpiper	<i>Calidris ferruginea</i>	-	-	Y	-	Y	1.8 km, S, 2017	1.8 km, S, 2017
Purple sandpiper	<i>Calidris maritima</i>	Y	-	-	-	Y	300 m, S, 2017	300 m, S, 2017
Ruff	<i>Calidris pugnax</i>	Y	-	-	-	Y	300 m, SW, 2017	300 m, SW, 2017
Nightjar	<i>Caprimulgus europaeus</i>	-	Y	-	-	Y	300 m, SW, 2017	300 m, SW, 2017
Cetti's warbler	<i>Cettia cetti</i>	Y	-	-	-	Y	400 m, N, 2017	300 m, S, 2015
Little ringed plover	<i>Charadrius dubius</i>	Y	-	-	-	Y	2 km, SW, 2017	1.9 km, S, 2015
Black-headed gull	<i>Chroicocephalus ridibundus</i>	-	-	Y	Y	Y	Within Suffolk Onshore Scheme, 2021	Within Suffolk Onshore Scheme, 2021
Western marsh harrier	<i>Circus aeruginosus</i>	Y	-	-	-	Y	50 m, NW, 2017	50 m, NW, 2017
Hen harrier	<i>Circus cyaneus</i>	Y	Y	-	-	Y	300 m, S, 2017	100 m, NW, 2015
Long-tailed duck	<i>Clangula hyemalis</i>	Y	-	-	-	Y	1.8 km, S, 2017	500 m, NE, 2016
Hawfinch	<i>Coccothraustes coccothraustes</i>	-	Y	-	-	Y	300 m, SW, 2017	300 m, SW, 2017
Stock Dove	<i>Columba oenas</i>	-	-	Y	-	Y	50 m, S, 2020	50 m, S, 2020

Cuckoo	<i>Cuculus canorus</i>	-	Y	-	-	Y	300 m, S, 2017	300 m, S, 2017
Dartford warbler	<i>Curruca undata</i>	Y	-	-	-	Y	290 m, S, 2017	290 m, S, 2017
Bewick's swan	<i>Cygnus columbianus</i>	Y	-	-	-	Y	300 m, SW, 2017	300 m, SW, 2017
Whooper swan	<i>Cygnus cygnus</i>	Y	-	-	-	Y	300 m, SW, 2015	300 m, SW, 2015
Mute swan	<i>Cygnus olor</i>	-	-	Y	-	Y	1 km, N, 2021	300 m, N, 2017
House martin	<i>Delichon urbicum</i>	-	-	Y	-	Y	1.1 km, S, 2021	10 m, S, 2019
Lesser spotted woodpecker	<i>Dryobates minor</i>	-	-	Y	-	Y	2 km, NE, 2014	2 km, NE, 2014
Yellowhammer	<i>Emberiza citrinella</i>	-	Y	-	-	Y	150 m, W, 2020	150 m, W, 2020
Common reed bunting	<i>Emberiza schoeniclus</i>	-	Y	-	-	Y	300 m, SE, 2017	290 m, SE, 2016
Shore lark	<i>Eremophila alpestris</i>	Y	-	-	-	Y	1.5 km, N, 2014	1.5 km, N, 2014
Merlin	<i>Falco columbarius</i>	Y	-	-	-	Y	300 m, SW, 2015	300 m, SW, 2015
Peregrine	<i>Falco peregrinus</i>	Y	-	-	-	Y	300 m, SW, 2017	300 m, SW, 2017
Hobby	<i>Falco Subbuteo</i>	Y	-	-	Y	Y	Within Suffolk Onshore	Within Suffolk Onshore

							Scheme, 2021	Scheme, 2021
Kestrel	<i>Falcon tinnunculus</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Fulmar	<i>Fulmarus glacialis</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Snipe	<i>Gallinago gallinago</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Black-throated diver	<i>Gavia arctica</i>	Y	-	-	-	Y	500 m, NW, 2016	500 m, NW, 2016
Great northern diver	<i>Gavia immer</i>	Y	-	-	-	Y	300 m, SW, 2017	300 m, SW, 2017
Red-throated diver	<i>Gavia stellata</i>	Y	-	-	Y	Y	300 m, SW, 2017	Within Suffolk Onshore Scheme, 2016
Crane	<i>Grus grus</i>	-	-	Y	-	Y	300 m, S, 2016	300 m, S, 2016
Oystercatcher	<i>Haematopus ostralegus</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Little gull	<i>Hydrocoloeus minutus</i>	Y	-	-	-	Y	1.5 km, N, 2017	300 m, SW, 2016
Mediterranean gull	<i>Ichthyaetus melanocephalus</i>	Y	-	-	-	Y	300 m, N, 2017	300 m, N, 2017
Wryneck	<i>Jynx torquilla</i>	Y	-	-	-	Y	1.9 km, SW, 2017	300 m, S, 2015

Red-backed shrike	<i>Lanius collurio</i>	Y	-	-	-	Y	1.5 km, N, 2013	1.5 km, N, 2013
European herring gull	<i>Larus argentatus</i>	-	-	Y	Y	Y	1.5 km, N, 2021	Within Suffolk Onshore Scheme, 2016
Caspian gull	<i>Larus cachinnans</i>	-	-	Y	-	Y	300 m, N, 2017	300 m, N, 2017
Common gull	<i>Larus cannus</i>	-	-	Y	-	Y	250 m, S, 2017	250 m, S, 2017
Lesser black-backed gull	<i>Larus fuscus</i>	-	-	Y	-	Y	250 m, S, 2018	250 m, S, 2018
Icelandic gull	<i>Larus glaucooides</i>	-	-	Y	-	Y	500 m, N, 2016	300 m, S, 2015
Glaucous gull	<i>Larus hyperboreus</i>	-	-	Y	-	Y	900 m, S, 2018	300 m, S, 2017
Great black-backed gull	<i>Larus marinus</i>	-	-	Y	-	Y	40 m, N, 2018	40 m, N, 2018
Yellow-legged gull	<i>Larus michahellis</i>	-	-	Y	-	Y	300 m, S, 2017	80 m, N, 2015
Bar-tailed godwit	<i>Limosa lapponica</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Black-tailed godwit	<i>Limosa limosa</i>	Y	-	-	Y	Y	300 m, S, 2017	Within Suffolk Onshore Scheme, 2016

Linnet	<i>Linaria cannabina</i>	-	-	Y	-	Y	80 m, S, 2021	80 m, S, 2021
Grasshopper warbler	<i>Locustella naevia</i>	-	Y	-	-	Y	300 m, S, 2017	300 m, S, 2017
Red crossbill	<i>Loxia curvirostra</i>	Y	-	-	-	Y	1.4 km, N, 2016	300 m, S, 2013
Parrot crossbill	<i>Loxia pytyopsittacus</i>	Y	-	-	-	Y	200 m, N, 2013	200 m, N, 2013
Woodlark	<i>Lullula arborea</i>	Y	Y	-	-	Y	300 m, S, 2017	300 m, S, 2017
Nightingale	<i>Luscinia megarhynchos</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Wigeon	<i>Mareca penelope</i>	-	-	Y	-	Y	250 m, S, 2018	250 m, S, 2018
Gadwall	<i>Mareca Strepera</i>	-	-	Y	-	Y	300 m, N, 2018	260 m, E, 2016
Velvet scoter	<i>Melanitta fusca</i>	Y	-	-	-	Y	500 m, N, 2015	500 m, N, 2015
Common scoter	<i>Melanitta nigra</i>	Y	Y	-	-	Y	100 m, S, 2018	100 m, S, 2018
Bee-eater	<i>Merops apiaster</i>	Y	-	-	-	Y	1.5 km, E, 2015	1.5 km, E, 2015
Red kite	<i>Milvus milvus</i>	Y	-	-	-	Y	800 m, NE, 2018	300 m, S, 2017
Gannet	<i>Morus bassanus</i>	-	-	Y	-	Y	1.4 km, N, 2017	300 m, S, 2016

Grey wagtail	<i>Motacilla cinerea</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Blue-headed wagtail	<i>Motacilla flava flavissima</i>	-	Y	-	-	Y	300 m, S, 2015	300 m, S, 2015
Yellow wagtail	<i>Motacilla flava flavissima</i>	-	Y	-	-	Y	300 m, S, 2015	300 m, S, 2015
Spotted flycatcher	<i>Muscicapa striata</i>	-	Y	-	-	Y	1.5 km, N, 2017	150 m, S, 2014
Curlew	<i>Numenius arquata</i>	-	Y	-	Y		300 m, S, 2017	Within Suffolk Onshore Scheme, 2016
Eurasian whimbrel	<i>Numenius phaeopus</i>	Y	-	-	-	Y	300 m, S, 2017	100 m, S, 2015
Leach's storm petrel	<i>Oceanodroma leucorhoa</i>	Y	-	-	-	Y	500 m, N, 2015	500 m, N, 2015
Western osprey	<i>Pandion haliaetus</i>	Y	-	-	-	Y	1.8 km, S, 2017	300 m, S, 2016
Bearded reedling	<i>Panurus biarmicus</i>	Y	-	-	-	Y	300 m, N, 2017	300 m, N, 2017
House sparrow	<i>Passer domesticus</i>	-	Y	-	-	Y	1.4 km, S, 2021	300 m, N, 2018
Tree sparrow	<i>Passer montanus</i>	-	Y	-	-	Y	1.4 km, N, 2017	1.4 km, N, 2017
Grey partridge	<i>Perdix perdix</i>	-	Y	-	-	Y	60 m, W, 2015	60 m, W, 2015

European honey buzzard	<i>Pernis apivorus</i>	Y	-	-	-	Y	500 m, N, 2016	500 m, N, 2016
Shag	<i>Phalacrocorax aristotelis</i>	Y	-	-	-	Y	1.5 km, N, 2017	1.5 km, N, 2017
Redstart	<i>Phoenicurus phoenicurus</i>	-	-	Y	-	Y	700 m, S, 2017	300 m, S, 2016
Black redstart	<i>Phoenicurus ochruros</i>	Y	-	-	-	Y	500 m, N, 2017	300 km, S, 2015
Willow warbler	<i>Phylloscopus trochilus</i>	-	-	Y	-	Y	300 m, N, 2017	300 m, N, 2017
Spoonbill	<i>Platalea leucorodia</i>	Y	-	-	-	Y	300 m, S, 2017	300 m, S, 2017
Snow bunting	<i>Plectrophenax nivalis</i>	Y	-	-	-	Y	300 m, S, 2017	300 m, S, 2017
Grey plover	<i>Pluvialis squatarola</i>	-	-	Y	-	Y	1.8 km, S, 2017	1.8 km, N, 2016
Slavonian grebe	<i>Podiceps auritus</i>	Y	-	-	-	Y	1.5 km, N, 2014	1.5 km, N, 2014
Red-necked grebe	<i>Podiceps grisegena</i>	-	-	Y	-	Y	1.5 km, N, 2015	1.5 km, N, 2015
Black-necked grebe	<i>Podiceps nigricollis</i>	Y	-	-	-	Y	1.9 km, S, 2016	1.9 km, S, 2016
Marsh tit	<i>Poecile palustris</i>	-	-	Y	-	Y	300 m, S, 2016	300 m, S, 2016
Dunnock	<i>Prunella modularis</i>	-	-	Y	-	Y	350 m, N, 2017	1.3 km, S, 2021

Balaeric shearwater	<i>Puffinus mauretanicus</i>	-	Y	-	-	Y	500 m, N, 2016	500 m, N, 2016
Manx shearwater	<i>Puffinus puffinus</i>	-	-	Y	-	Y	1.4 km, N, 2016	300 m, S, 2014
Eurasian Bullfinch	<i>Pyrrhula pyrrhula</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Avocet	<i>Recurvirostra avosetta</i>	Y	-	-	-	Y	300 m, S, 2017	300 m, S, 2016
Common firecrest	<i>Regulus ignicapilla</i>	Y	-	-	-	Y	300 m, S, 2017	300 m, S, 2016
Kittiwake	<i>Rissa tridactyla</i>	-	-	Y	-	Y	300 m, S, 2016	300 m, S, 2016
Winchat	<i>Saxicola rubetra</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Woodcock	<i>Scolopax rusticola</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Eider	<i>Somateria mollissima</i>	-	-	Y	-	Y	1.4 km, N, 2017	1.4 km, N, 2017
Shoveler	<i>Spatula clypeata</i>	-	-	Y	-	Y	250 m, S, 2018	250 m, S, 2018
Garganey	<i>Spatula querquedula</i>	Y	-	-	-	Y	2 km, S, 2016	2 km, S, 2016
Arctic skua	<i>Stercorarius parasiticus</i>	-	-	Y	-	Y	1.5 km, N, 2017	500 m, N, 2015
Great skua	<i>Stercorarius skua</i>	-	-	Y	-	Y	1.9 km, S, 2017	500 m, N, 2016

Roseate tern	<i>Sterna dougallii</i>	Y	Y	-	-	Y	1.5 km, N, 2016	1.5 km, N, 2016
Common tern	<i>Sterna hirundo</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Arctic tern	<i>Sterna paradisaea</i>	-	-	Y	-	Y	1.8 km, S, 2017	1.4 km, N, 2016
Little tern	<i>Sternula albifrons</i>	Y	-	-	-	Y	1.5 km, N, 2017	1.5 km, N, 2017
Turtle dove	<i>Streptopelia turtur</i>	-	Y	-	-	Y	400 m, N, 2021	250 m, S, 2019
Tawny owl	<i>Strix aluco</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Starling	<i>Sturnus vulgaris</i>	-	-	Y	Y	Y	250 m, S, 2018	Within Suffolk Onshore Scheme, 2016
Shelduck	<i>Tadorna tadorna</i>	-	-	Y	-	Y	300 m, N, 2017	300 m, N, 2017
Sandwich tern	<i>Thalasseus sandvicensis</i>	-	-	Y	-	Y	1.4 km, N, 2017	700 m, S, 2015
Spotted redshank	<i>Tringa erythropus</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Wood sandpiper	<i>Tringa ochropus</i>	Y	-	-	-	Y	300 m, S, 2017	300 m, S, 2017
Greenshank	<i>Tringa Nebularia</i>	Y	-	-	-	Y	300 m, S, 2017	300 m, S, 2017

Green sandpiper	<i>Tringa ochropus</i>	Y	-	-	-	Y	2 km, S, 2017	300 m, S, 2015
Redshank	<i>Tringa totanus</i>	-	-	Y	-	Y	300 m, N, 2017	250 m, E, 2016
Redwing	<i>Turdus iliacus</i>	Y	-	-	Y	Y	300 m, S, 2017	Within Suffolk Onshore Scheme, 2016
Song thrush	<i>Turdus philomelos</i>	-	-	Y	-	Y	900 m, S, 2020	300 m, N, 2018
Fieldfare	<i>Turdus pilaris</i>	Y	-	-	-	Y	300 m, S, 2017	300 m, S, 2017
Ring ouzel	<i>Turdus torquatus</i>	-	-	Y	-	Y	200 m, N, 2021	200 m, N, 2021
Mistle thrush	<i>Turdus viscivorus</i>	-	-	Y	-	Y	300 m, S, 2017	300 m, S, 2017
Western barn owl	<i>Tyto alba</i>	Y	-	-	Y	Y	400 m, N, 2020	Within Suffolk Onshore Scheme, 2018
Eurasian hoopoe	<i>Upupa epops</i>	Y	-	-	-	Y	300 m, N, 2016	300 m, N, 2016
Guillemot	<i>Uria aalge</i>	-	-	Y	-	Y	300 m, N, 2017	300 m, N, 2017
Lapwing	<i>Vanellus vanellus</i>	-	Y	-	Y	Y	250 m, S, 2018	Within Suffolk Onshore

								Scheme, 2016
Higher Plants - flowering plants								
Wild leek	<i>Allium ampeloprasum</i>	-	-	Y	-	Y	1.1 km, N, 2021	1.1 km, N, 2021
Marsh-mallow	<i>Althaea officinalis</i>	-	-	Y	-	Y	1.7 km, S, 2013	1.7 km, S, 2013
Heather	<i>Calluna vulgaris</i>	-	-	Y	-	Y	1.5 km, S, 2017	300 m, S, 2014
Mossy stonecrop	<i>Crassula tillaea</i>	-	-	Y	-	Y	900 m, S, 2019	200 m, N, 2014
Red-tipped cudweed	<i>Filago lutescens</i>	-	Y	-	-	Y	900 m, S, 2019	900 m, S, 2019
Jersey cudweed	<i>Gnaphalium luteoalbum</i>	Y	-	-	-	Y	1.4 km, S, 2013	1.4 km, S, 2013
Bluebell	<i>Hyacinthoides non-scripta</i>	Y	-	-	-	Y	1.5 km, N, 2020	300 km, N, 2014
Sea pea	<i>Lathyrus japonicus</i>	-	-	Y	-	Y	1.6 km, S, 2021	300 m, S, 2018
Dittander	<i>Lepidium latifolium</i>	-	-	Y	-	Y	1.5 km, S, 2013	1.5 km, S, 2013
Lax-flowered sea- lavender	<i>Limonium humile</i>	-	-	Y	-	Y	1.4 km, S, 2013	1.4 km, S, 2013
Bulbous meadow- grass	<i>Poa bulbosa</i>	-	-	Y	-	Y	300 m, S, 2013	300 m, S, 2013

Borrer's saltmarsh-grass	<i>Puccinellia fasciculata</i>	-	Y	-	-	Y	1.5 km, S, 2013	1.5 km, S, 2013
Sand catchfly	<i>Silene conica</i>	-	-	Y	-	Y	300 m, S, 2013	300 m, S, 2013
Clustered clover	<i>Trifolium glomeratum</i>	-	-	Y	-	Y	2 km, W, 2021	300 m, S, 2018
Suffocated clover	<i>Trifolium suffocatum</i>	-	-	Y	-	Y	700 m, S, 2020	300 m, S, 2018
Invertebrates								
Small heath	<i>Coenonympha pamphilus</i>	-	Y	-	Y	Y	Within Suffolk Onshore Scheme, 2015	Within Suffolk Onshore Scheme, 2015
Grayling	<i>Hipparchia semele</i>	-	Y	-	Y	Y	Within Suffolk Onshore Scheme, 2015	Within Suffolk Onshore Scheme, 2015
Wall	<i>Lasiommata megera</i>	-	Y	-	-	Y	700 m, N, 2017	300 m, S, 2013
White admiral	<i>Limenitis camilla</i>	-	Y	-	-	Y	300 m, N, 2019	75m, S, 2017
Silver-studded blue	<i>Plebejus argus</i>	Y	Y	-	-	Y	700 m, N, 2017	
White-letter hairstreak	<i>Satyrrium w-album</i>	Y	Y	-	-	Y	150 m, S, 2013	150 m, S, 2013

Norfolk aeshna	<i>Anaciaeschna isoceles</i>	Y	Y	-	-	Y	500 m, N, 2019	400 m, N, 2018
Grey dagger	<i>Acronicta psi</i>	-	Y	-	-	Y	500 m, N, 2014	500 m, N, 2014
Brown-spot pinion	<i>Agrochola litura</i>	-	Y	-	-	Y	400 m, N, 2015	400 m, N, 2015
Beaded chestnut	<i>Agrochola lychnidis</i>	-	Y	-	-	Y	400 m, N, 2015	400 m, N, 2015
Green-brindled crescent	<i>Allophyes oxyacanthae</i>	-		-	-	Y	400 m, N, 2015	400 m, N, 2015
Ear moth	<i>Amphipoea oculea</i>	-	Y	-	-	Y	500 m, N, 2015	500 m, N, 2015
Mouse moth	<i>Amphipyra tragopoginis</i>	-	Y	-	-	Y	500 m, N, 2014	500 m, N, 2014
Deep-brown dart	<i>Aporophyla lutulenta</i>	-	Y	-	-	Y	400 m, N, 2015	400 m, N, 2015
Garden tiger	<i>Arctia caja</i>	-	Y	-	-	Y	1.9 km, S, 2017	500 m, N, 2014
Centre-barred sallow	<i>Atethmia centrago</i>	-	Y	-	-	Y	400 m, N, 2015	400 m, N, 2015
Broom moth	<i>Ceramica pisi</i>	-	Y	-	-	Y	500 m, N, 2014	500 m, N, 2014
Streak	<i>Chesias legatella</i>	-	Y	-	-	Y	400 m, N, 2015	400 m, N, 2015
Latticed heath	<i>Chiasmia clathrata</i>	-	Y	-	-	Y	400 m, N, 2015	400 m, N, 2015

Small phoenix	<i>Ecliptopera silaceata</i>	-	Y	-	-	Y	400 m, N, 2015	400 m, N, 2015
Autumnal rustic	<i>Eugnorisma glareosa</i>	-	Y	-	-	Y	400 m, N, 2015	400 m, N, 2015
Dusky dart	<i>Euxoa tritici</i>	-	Y	-	-	Y	500 m, N, 2015	500 m, N, 2015
Crescent	<i>Helotropha leucostigma</i>	-	Y	-	-	Y	500 m, N, 2015	500 m, N, 2015
Small emerald	<i>Hemistola chrysoprasaria</i>	-	Y	-	-	Y	500 m, N, 2014	500 m, N, 2014
Rustic	<i>Hoplodrina blanda</i>	-	Y	-	-	Y	500 m, N, 2015	500 m, N, 2015
Rosy rustic	<i>Hydraecia micacea</i>	-	Y	-	-	Y	500 m, N, 2014	500 m, N, 2014
Rosy minor	<i>Litoligia literosa</i>	-	Y	-	-	Y	500 m, N, 2015	500 m, N, 2015
Dot moth	<i>Melanchra persicariae</i>	-	Y	-	-	Y	500 m, N, 2015	500 m, N, 2015
Powdered quaker	<i>Orthosia gracilis</i>	-	Y	-	-	Y	400 m, N, 2015	400 m, N, 2015
Large wainscot	<i>Rhizedra lutosa</i>	-	Y	-	-	Y	400 m, N, 2015	400 m, N, 2015
Shaded broad-bar	<i>Scotopteryx chenopodiata</i>	-	Y	-	-	Y	500 m, N, 2015	500 m, N, 2015
White ermine	<i>Spilosoma lubricipeda</i>	-	Y	-	-	Y	400 m, N, 2015	400 m, N, 2015

Buff ermine	<i>Spilosoma lutea</i>	-	Y	-	-	Y	400 m, N, 2015	400 m, N, 2015
Hedge rustic	<i>Tholera cespitis</i>	-	Y	-	-	Y	400 m, N, 2015	400 m, N, 2015
Feathered gothic	<i>Tholera decimalis</i>	-	Y	-	-	Y	400 m, N, 2015	400 m, N, 2015
Cinnabar	<i>Tyria jacobaeae</i>	-	Y	-	Y	Y	Within Suffolk Onshore Scheme, 2017	Within Suffolk Onshore Scheme, 2017
Narrow-mouthed whorl snail	<i>Vertigo (Vertilla) angustior</i>	-	Y	-	-	Y	1.6 km, S, 2016	1.6 km, S, 2016
Carthusian snail	<i>Monacha (Monacha) cartusiana</i>	-	-	-	Y	Y	1.7 km, S, 2016	1.7 km, S, 2016
Marine Mammals								
Grey seal	<i>Halichoerus grypus</i>	-	-	Y	-	Y	200 m, E, 2020	200 m, E, 2020
Common seal	<i>Phoca vitulina</i>	-	Y	-	-	Y	2 km, N, 2015	2 km, N, 2015
Mammals								
European water vole	<i>Arvicola amphibius</i>	Y	Y	-	-	Y	600 m, s, 2018	500 m, S, 2015
Western barbastelle bat	<i>Barbastella barbastellus</i>	Y	Y	-	-	Y	4.4 km, N, 2020	600 m, S, 2016

Serotine bat	<i>Eptesicus serotinus</i>	Y	-	-	-	Y	3.5 km, N, 2019	600 m, S, 2016
West European hedgehog	<i>Erinaceus europaeus</i>	-	Y	-	Y	Y	500 m, S, 2021	Within Suffolk Onshore Scheme, 2014
European otter	<i>Lutra lutra</i>	Y	Y	-	-	Y	1.3 km, N, 2015	1.3 km, N, 2015
Eurasian badger	<i>Meles meles</i>	Y	-	-	Y	Y	300 m, S, 2021	Within Suffolk Onshore Scheme, 2019
Polecat	<i>Mustela putorius</i>	-	Y	-	-	Y	50 m, N, 2020	50 m, S, 2019
Daubenton's bat	<i>Myotis daubentonii</i>	Y	-	-	-	Y	600 m, S, 2017	600 m, S, 2017
Natterer's bat	<i>Myotis nattereri</i>	Y	-	-	-	Y	600 m, S, 2016	600 m, S, 2016
Noctule bat	<i>Nyctalus noctula</i>	Y	Y	-	-	Y	4.4 km, N, 2020	600 m, S, 2016
Nathusius's pipistrelle	<i>Pipistrellus nathusii</i>	Y	-	-	-	Y	4.4 km, N, 2020	1.1 km, S, 2014
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	Y	-	-	-	Y	4.4 km, N, 2020	500 m, S, 2019
Long-eared bat sp.	<i>Plecotus</i>	Y	Y	-	-	Y	4.4 km, N, 2020	400 m, S, 2015

Brown long-eared bat	<i>Plecotus auritus</i>	Y	Y	-	-	Y	4.4 km, N, 2020	200 m, S, 2018
Reptiles								
Slow-worm	<i>Anguis fragilis</i>	Y	Y	-	-	Y	2 km, N, 2016	1.8 km, N, 2015
Grass snake	<i>Natrix helvetica</i>	Y	Y	-	-	Y	800 m, S, 2020	200 m, S, 2015
Adder	<i>Vipera berus</i>	Y	Y	-	-	Y	200 m, N, 2015	200 m, N, 2015
Common lizard	<i>Zootoca vivipara</i>	Y	Y	-	-	Y	600 m, S, 2019	300 m, N, 2017
Invasive Species								
Water fern	<i>Azolla filiculoides</i>	Y	-	-	-	Y	1.5 km, N, 2020	1.5 km, N, 2020
Giant hogweed	<i>Heracleum mantegazzianum</i>	Y	-	-	-	Y	800 m, N, 2019	400 m, S, 2018
Three-cornered garlic	<i>Allium triquetrum</i>	Y	-	-	-	Y	300 m, S, 2018	300 m, S, 2018
Japanese knotweed	<i>Fallopia japonica</i>	Y	-	-	-	Y	1.3 km, N, 2017	1.3 km, N, 2017
Himalayan balsam	<i>Impatiens glandulifera</i>	Y	-	-	-	Y	1.0 km, N, 2017	300 m, N, 2014
Rhododendron	<i>Rhododendron ponticum</i>	Y	-	-	-	Y	1.5 km, N, 2020	1.3 km, N, 2017

Yellow archangel	<i>Lamiaeum galeobdolon subsp. argentatum</i>	Y	-	-	-	Y	500 m, S, 2014	500 m, S, 2014
Japanese rose	<i>Rosa rugosa</i>	Y	-	-	-	Y	700 m, S, 2020	300 m, S, 2018
New Zealand pigmyweed	<i>Crassula helmsii</i>	Y	-	-	-	Y	1.3 km, N, 2017	1.3 km, N, 2017
Virginia-creeper	<i>Parthenocissus quinquefolia</i>	Y	-	-	-	Y	2 km, N, 2017	2 km, N, 2017

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