

The Great Grid Upgrade

Sea Link

Preliminary Environmental Information Report

Volume: 2

Part 3 Kent Onshore Scheme

Appendix 3.3.A Phase 1 Habitat Survey Report

Version A

October 2023

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Contents

3.3.A.1	Introduction	1
	Background.....	1
	The Kent Onshore Scheme.....	1
	Current Land Use of the Kent Onshore Scheme.....	1
	The Purpose of the Extended Phase 1 Report.....	2
3.3.A.2	Methodology.....	3
	Desk Study.....	3
	Field Survey	5
	Limitations and Assumptions	6
3.3.A.3	Ecological Baseline	7
	Introduction	7
	Statutory Sites.....	7
	Non-Statutory Sites.....	9
	Habitats.....	10
	Protected and Notable Species.....	27
3.3.A.4	References	36
	Annex A Species Data Records Summary	38

Table of Images

Image 3.3.AB.1 - 'A1.1.2' - Broadleaved woodland – plantation (TR308628)	12
Image 3.3.A.2 – 'J1.3' - Cultivated/disturbed land - ephemeral/short perennial (TR307629)	13
Image 3.3.A.3 - 'B2.2' - Neutral grassland - semi-improved (TR319629)	15

Table of Tables

Table 3.3.A.1 Desk study data sources	3
Table 3.3.A.2: Statutory designated sites	7
Table 3.3.A.3: Non-statutory designated sites	9
Table 3.3.A.4 Hedgerow assessment results	16
Table 3.3.A.5 Habitat summary within draft order limits by land parcel	18
Table 3.3.A.6 Target notes for habitats and species	24
Table 3.3.A.7 Trees with potential to support bat roosts	28
Table 3.3.A.8 Invasive non-native species recorded in the desk study	34
Annex A Table1: Summary of records for protected and notable species	38

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3.3.A.1 Introduction

Background

- 3.3.A.1.1 This Extended Phase 1 Habitat Survey Report has been prepared to assess the ecological constraints in connection with the Kent Onshore Scheme for the Proposed Project. The Kent Onshore Scheme is located on the east coast of Kent, as shown by **Volume 3, Part 1, Figure 1.1.3 Kent Onshore Scheme Boundary**.
- 3.3.A.1.2 The assessment of ecological constraints has been undertaken with reference to current good practice (CIEEM Guidelines for Preliminary Ecological Appraisal; Ref 3.3.1) and forms part of the technical information commissioned by National Grid Electricity Transmission plc (National Grid) in connection with the Kent Onshore Scheme. The Extended Phase 1 Habitat Survey Report addresses relevant wildlife legislation and planning policy as summarised in **Volume 1 Part 3 Chapter 3 Ecology and Biodiversity** and is consistent with the requirements of *British Standard 42020:2013 Biodiversity. Code of Practice for Planning and Development*.
- 3.3.A.1.3 This Extended Phase 1 Habitat Survey Report is intended to highlight the ecological baseline in respect of the Kent 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 (EIA) once the Kent Onshore Scheme proposals have been finalised and any required surveys have been completed. The need for these surveys is detailed within the Preliminary Environmental Information Report (PEIR).

The Kent Onshore Scheme

- 3.3.A.1.4 The draft Order Limits for the Kent Onshore Scheme is illustrated on **Volume 3, Part 1, Figure 1.1.3 Kent Onshore Scheme Boundary**.
- 3.3.A.1.5 The Kent Onshore Scheme is described in the Preliminary Environmental Information Report (PIER) **Volume 1, Part 1, Chapter 4 Description of the Proposed Project**.

Current Land Use of the Kent Onshore Scheme

- 3.3.A.1.6 The land within the Kent Onshore Scheme comprises a range of land uses including the Pegwell Bay Country Park, coastal habitats, a solar farm and biogas plant, the St. Augustine's Golf Course and Stone Lees Golf Club, agricultural land, hedgerow, wet ditches, ponds, woodland, and verges. The wider area consists of coastal habitats, agriculture, marshland, and urban areas.

The Purpose of the Extended Phase 1 Report

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

- A desk-study undertaken on 5 July 2022 to obtain records of designated sites, notable habitats¹ and protected and notable species² within the land within the proposed Kent Onshore Scheme draft Order Limits and appropriate Zones of Influence (Zoi) (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,
- A walkover survey of accessible land within and adjacent to the Kent Onshore Scheme was undertaken on 21 June and 24 June 2022, 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 have not been assessed at time of writing as no access has currently been provided. These are discussed in more detail later.

3.3.A.1.8 The purpose of the Extended Phase 1 Habitat Survey Report is to provide a high-level ecological appraisal of the Kent 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
- to 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 (Ref 3.3.5); habitats listed under the Kent Biodiversity Strategy (Ref 3.3.10); hedgerows identified as being 'important' under the wildlife criteria of the Hedgerow Regulations 1997 (Ref 3.3.4); 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 (Ref 3.3.5); any species listed in a British Red Data Book (Ref 3.3.9); and any other species listed under the Kent Biodiversity Strategy (Ref 3.3.10).

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 Scheme.

3.3.A.2 Methodology

Desk Study

Background Records Search

- 3.3.A.2.1 The Extended Phase 1 Habitat Survey includes a desk study to obtain background records relevant the Kent 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 3.3.A.1.
- 3.3.A.2.2 The Study Area is dependent upon the nature, timing and scale of the Kent Onshore Scheme, as well as the location of the Kent Onshore Scheme and the surrounding landscape. These variables all contribute to what is referred to as the Zone of Influence (Zol) of the Kent Onshore Scheme, which is the area over which ecological features may be affected by biophysical changes because of the works and associated activities.

Table 3.3.A.1 Desk study data sources

Data source	Date	Purpose
Multi-Agency Geographic Information for the Countryside (MAGIC) website (Ref 3.3.2)	July 2022	Designated sites of nature conservation importance (statutory sites only) within 5 km of the proposed Kent 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 Site, these being areas of ancient woodland and ‘Habitats of Principal Importance for the Conservation of Biodiversity’ included in the England Biodiversity List ⁴ .

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

Data source	Date	Purpose
Kent and Medway Biological Records Centre	July 2022	Records of non-statutory designated sites (Local Wildlife Sites) within 2 km of the proposed Kent 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 Kent 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 (Ref 3.3.5) 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 Kent Onshore Scheme draft Order Limits, in order to help establish if the land within and immediately surrounding the Site could be used by great crested newts.
Ordnance Survey 1:2500 Pathfinder maps and aerial photography	July 2022	Information on habitats and habitat connections (based on aerial photography) relevant to interpretation of planning policy and assessment of potential protected and notable species constraints.

Habitats and species of principal importance for the conservation of biodiversity in England that is known as the England Biodiversity List

Field Survey

Extended Phase 1 Habitat Survey

- 3.3.A.2.3 An Extended Phase 1 Habitat Survey was undertaken in accordance with the standard Joint Nature Conservation Committee survey method (Ref 3.3.8). 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.
- 3.3.A.2.4 The Extended Phase 1 Habitat Surveys were undertaken in 2022 and 2023 by a pair of suitably qualified ecologists who recorded and mapped all habitat types present within Kent Onshore Scheme, along with any associated relevant ecological receptors observed. The survey area encompassed all safely accessible parts of the Kent Onshore Scheme and adjacent habitats where access permission had been granted in advance of survey, or this land was visible from within the Kent Onshore Scheme draft Order Limits or from public rights of way, or other publicly accessible areas.
- 3.3.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 3, Figure 3.3.2 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 Extended Phase 1 Habitat Survey. Naming conventions regarding plant species follow Stace (Ref 3.3.11).

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

- 3.3.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

- 3.3.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

- 3.3.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 Kent 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

- 3.3.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.

- 3.3.A.2.10 As a result of this, ground truthing of the aerial photography was undertaken on 26th to 28th June 2023, once access had been obtained to many parcels. Information for accessible parcels has been updated based on these site visits. However, several land parcels were still inaccessible. These include the following parcels shown on **Volume 3, Part 2, Figure 3.3.3 Survey Parcels**:

- 227;
- 228;
- 229;
- 231;
- 237;
- 240;
- 245;
- 380; and
- 381.

- 3.3.A.2.11 These are principally parcels south of the River Stour, to which no access was available at the time of survey. An ecological survey represents a 'snapshot' in time of the ecological condition of the Kent 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.

- 3.3.A.2.12 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.

3.3.A.3 Ecological Baseline

Introduction

- 3.3.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.
- 3.3.A.3.2 With regards to background data 'recent' records are considered to be those no older than 10 years from the date of the desk study (July 2022).

Statutory Sites

- 3.3.A.3.3 Twelve 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). These are shown in Table 3.3.A.2.

Table 3.3.A.2: Statutory designated sites

Designated site	Reason for designation	Distance from Kent Onshore Scheme ⁵
Thanet Coast & Sandwich Bay Ramsar (2,169 ha)	Designated for supporting 15 British Red Data Book (RDB) (Ref 3.3.9) wetland invertebrates and an internationally important overwintering population of ruddy turnstone (<i>Arenaria interpres</i>).	Within the Kent Onshore Scheme
Thanet Coast & Sandwich Bay Special Protection Area (SPA) (1,882 ha)	Designated for internationally important populations of breeding little tern (<i>Sternula albifrons</i>) and overwintering European golden plover (<i>Pluvialis apricaria</i>) and ruddy turnstone (<i>Arenaria interpres</i>).	Within the Kent Onshore Scheme.
Sandwich Bay Special Area of Conservation (SAC) (1,137 ha)	Designated for various dune habitats including but not limited to embryonic shifting dunes and humid dune slacks.	Within the Kent Onshore Scheme.
Thanet Coast SAC (2,816 ha)	Designated for reefs and submerged or partially submerged sea caves.	2.2 km north of the Kent Onshore Scheme

⁵ Where designated sites are situated outside of the Kent Onshore Scheme draft order limits (Design Freeze 2) red line boundary (RLB), the distance and direction is given at the closest point of the designated site from the draft order limits RLB.

Designated site	Reason for designation	Distance from Kent Onshore Scheme ⁵
Stodmarsh SAC (566 ha)	Designated for Desmoulin's whorl snail (<i>Vertigo moulinsiana</i>)	6.5 km to the west, and upstream, of the Kent Onshore Scheme
Margate and Long Sands SAC (64,877 ha)	Designated for sandbanks which are slightly covered by sea water all the time.	7.4 km to the north of the Kent Onshore Scheme.
Outer Thames Estuary SPA (392,400 ha)	Designated for internationally important populations of breeding common tern (<i>Sterna hirundo</i>) and little tern (<i>Sternula albifrons</i>) and overwintering populations of red-throated diver (<i>Gavia stellata</i>).	6 km to the north of the Kent Onshore Scheme.
Stodmarsh SPA (484 ha)	Designated for internationally important populations of non-breeding great bittern (<i>Botaurus stellaris</i>), hen harrier (<i>Circus cyaneus</i>), northern shoveler (<i>Spatula clypeata</i>) and breeding and non-breeding gadwall (<i>Mareca strepera</i>) as well as breeding and wintering bird assemblages.	6.9 km west of the Kent Onshore Scheme
Stodmarsh Ramsar (484 ha)	Designated for six British RDB wetland invertebrates, two nationally rare plants, five nationally scarce species and a diverse assemblage of rare wetland birds.	6.9 km west of the Kent Onshore Scheme
Sandwich Bay to Hacklinge Marshes Site of Special Scientific Interest (SSSI) (1,790 ha)	Contains important sand dune system and sandy coastal grassland with outstanding assemblage of terrestrial and marine plant and invertebrates as well as being important for wintering and migrating bird populations.	Within the Kent Onshore Scheme
Sandwich & Pegwell Bay National Nature Reserve (NNR) (629 ha)	Sandwich and Pegwell Bay National Nature Reserve with chalk cliffs, mud flats, saltmarsh and sand dune habitats that is internationally important for waders and wildfowl both on migration and over-winter.	Directly adjacent to the east of the Kent Onshore Scheme
Princes Beachlands Local Nature Reserve (LNR) (6 ha)	Designated for a mosaic of habitats that have importance for migrating birds.	1.7 km southeast of the Kent Onshore Scheme

Non-Statutory Sites

3.3.A.3.4 Three non-statutory sites designated for nature conservation have been identified within 2km of the Kent Onshore Scheme. These are shown in Table 3.3.A.3:

Table 3.3.A.3: Non-statutory designated sites

Designated site	Reason for designation	Distance from Kent Onshore Scheme ⁶
DO21 Ash Level and South Richborough Pasture Local Wildlife Site (LWS) (1,039 ha)	An extensive area of low-lying agricultural land with interconnecting dyke systems, situated to the south of the River Stour. Crossed by old drove roads edged with well-established hedgerows. Old counter walls with unimproved grassland also form an important feature.	Within the Kent Onshore Scheme
TH12 Woods and Grassland, Minster Marshes LWS (6.4 ha)	Minster Marshes contains a unique biodiversity that thrives on wet chalkland habitats. The grassland contains a wide variety of wildflowers including nationally scarce orchid species.	Within the Kent Onshore Scheme
Sandwich & Pegwell Bay Kent Wildlife Trust Site (615 ha)	Sandwich and Pegwell Bay Kent Wildlife Trust site is a mosaic of grassland, wetland and saltmarsh habitats. This designated site supports population of both lizard orchids (<i>Himantoglossum hircinum</i>) and Deptford pink (<i>Dianthus armeria</i>) and is an important overwintering area for wading bird species.	Directly adjacent to the east of the Kent Onshore Scheme

⁶ Where designated sites are situated outside of the Kent Onshore Scheme draft order limits (Design Freeze 2) red line boundary (RLB), the distance and direction is given at the closest point of the designated site from the draft order limits RLB.

Habitats

Desk Study

Ancient woodland

- 3.3.A.3.5 There are no blocks of woodland listed as ancient woodland on the National Forest Inventory 2014 (likely Habitat of Principal Importance or HoPI, listed on Section 41 of the Natural Environment and Rural Communities Act 2006 (Ref 3.3.5) within 500m of the Kent Onshore Scheme.

Notable habitats and protected and notable flora

- 3.3.A.3.6 The data search conducted in July 2022 indicated that the following Habitats of Principal Importance are located either within or adjacent to (i.e., up to 500 m from) the Kent Onshore Scheme as follows:

- Sand dunes, coastal saltmarsh, and mudflats – present along the Pegwell Bay foreshore;
- Coastal grazing marshes – distributed within and to the south of the graduated swathe, including both along the Pegwell Bay shore and inland;
- Reedbeds – situated along Pegwell Bay but also along the River Stour, with smaller parcels alongside multiple wet ditches present within the Kent Onshore Scheme;
- Woodland – four blocks of woodland listed as Priority Habitat by Section 41 of the Natural Environment & Rural Communities Act within 500m of the Kent Onshore Scheme. Additionally, there are five blocks of priority woodland habitat within the footprint of the Kent Scoping Boundary;
- Hedgerows and arable field margins – these are present throughout the Kent Onshore Scheme; the extent and distribution of such habitats meeting HoPI is to be determined;
- Standing water – ephemeral ponds with at least one pond present in Pegwell Bay Country Park and a network of ditches present throughout the Kent Onshore Scheme and scrapes along the River Stour; and
- Running water – the River Stour is present within the western end of the Kent Onshore Scheme.

Field Survey

- 3.3.A.3.7 A summary of the habitats within the Kent Onshore Scheme draft Order Limits are provided within Table 1.3.A.4 below and shown on **Figure 3.3.2 Phase 1 Habitat Survey** with specific features highlighted by Target Notes (TNs). TN descriptions are provided in Table 3.3.A.6.

J1.2 - Cultivated/disturbed land - amenity grassland

- 3.3.A.3.8 There was a single area of amenity grassland present within the Kent Onshore Scheme, running along the southern edge of the coast path within land parcel 373. The grassland was dominated by perennial rye grass (*Lolium perenne*) with occasional red fescue (*Festuca rubra*) and cocks foot (*Dactylis glomerata*) as well as occasional dandelion (*Taraxacum officinale*) and common daisy (*Bellis perennis*).

J1.1 – Cultivated/disturbed land – arable

- 3.3.A.3.9 The vast majority of the Kent Onshore Scheme consisted of arable land in active use. The eastern fields in land parcel 244 were in use for corn (*Zea mays*) production at the time of survey, whilst the northern fields in the same parcel were dominated by beans (*Vicia faba*). The remainder of the fields in land parcel 232 consisted of a mixture of beans and cabbage (*Brassica oleracea*).
- 3.3.A.3.10 These areas contained minimal biodiversity, consisting of monoculture industrial planting with some field edge species recorded as part of the tall ruderal habitat described below.

J4 - Bare Ground

- 3.3.A.3.11 Bare ground tracks and paths were present centrally and in the north along the field edges. They have been formed by increased farm machinery and foot traffic wear on field edge grassland and contain occasional robust grass species such as false oat grass (*Arrhenatherum elatius*) and red fescue (*Festuca rubra*), as well as wasteland such as greater plantain (*Plantago major*) and daisy (*Bellis perennis*).

A1.1.1 - Broadleaved woodland - semi-natural

- 3.3.A.3.12 The woodland is located in land parcel 360 and 346 within the Kent Onshore Scheme. The woodland within land parcel 255 is located immediately adjacent to the Kent Onshore Scheme.
- 3.3.A.3.13 This woodland was dominated by English oak (*Quercus robur*) with lower amounts of ash (*Fraxinus excelsior*) and hawthorn (*Crataegus monogyna*) with the latter more prevalent in the understory. English ivy (*Hedera helix*), bramble (*Rubus fruticosus* aggregate) and common nettle (*Urtica dioica*) dominated the majority of the forest floor, with a few more notable species such as Lords and Ladies (*Arum maculatum*) and stinking iris (*Iris foetidissima*) also recorded within this habitat. Woodland provides suitable roosting locations for bats, nesting birds and hazel dormouse (*Muscardinus avellana*) and can provide habitat for badgers (*Meles meles*), hedgehogs (*Erinaceus europaeus*), reptiles and amphibians.

A1.1.2 – Broadleaved woodland – plantation

- 3.3.A.3.14 Two areas of broadleaved plantation woodland were present within the Kent Onshore Scheme; in the southwest of land parcel 232 within the field south of the wastewater treatment works and along the northern edge of land parcel 336 into in the north of land parcel 360. The area within 336 and 360 contains a mixture of dogwood (*Cornus sanguinea*), elder (*Sambucus nigra*), ash (*Fraxinus excelsior*), and oak (*Quercus robur*) between immature and semi-mature. The area within 232 is composed of immature willow species (*Salix* sp.), hawthorn (*Crataegus monogyna*).



Image 3.3.AB.1 - 'A1.1.2' - Broadleaved woodland – plantation (TR308628)

A.3.1 – Broadleaved parkland/scattered trees

- 3.3.A.3.15 Broadleaved scattered trees were present across and adjacent to the Kent Onshore Scheme within hedgerows.

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

- 3.3.A.3.16 One area of ephemeral/short perennial is present in the west of parcel 232 in the field west of the water treatment works. It was located on a raised bank between the arable field and an access track, comprised of a blend of species including broad leaved dock (*Rumex obtusifolius*), common poppy (*Papaver rhoeas*) and ribwort plantain (*Plantago lanceolata*).



Image 3.3.A.2 – ‘J1.3 ‘- Cultivated/disturbed land - ephemeral/short perennial (TR307629)

Z99 - Hardstanding

- 3.3.A.3.17 The hardstanding within the Kent Onshore Scheme was made up of roads and pavements that run through the land parcels.

G2 – Running water

- 3.3.A.3.18 Wet ditches were present throughout the Kent Onshore Scheme delineating the field edges through land parcels 244, 237 and 232. These ditches are heavily colonised with aquatic macrophytes including giant salvinia (*Salvinia molesta*) and blanket weed (*Spirogyra adnate*). The ditches have steep-sided low banks bordered with swamp.

H2.6 – Saltmarsh dense/continuous

- 3.3.A.3.19 Saltmarsh was present within the land parcel 379. These areas had saltbush (*Atriplex hortensis*) and dittander (*Lepidium latifolium*) but also included species more associated with swamp habitat such as bullrush (*Typha latiflora*) and southern reed (*Phragmites australis*).

H1.1 - Intertidal - mud/sand

- 3.3.A.3.20 An area of intertidal mud/sand was present within land parcel 379. This area formed the beach habitats along the hightide mark.

A2.1 - Scrub - dense/continuous

- 3.3.A.3.21 An area of dense scrub was present within the southeast corner of land parcel 346. This habitat was partially within the Kent Onshore Scheme. Species recorded within the dense scrub were windmill palm (*Trachycarpus fortunei*), Japanese privet (*Ligustrum japonicum*), bramble, common nettle, red dead nettle (*Lamium purpureum*), cock's foot (*Dactylus glomerata*), pendulous sedge (*Carex pendula*) and hawthorn.
- 3.3.A.3.22 Other areas of dense scrub were recorded along ditches including within land parcel 244 and 316 within the Kent Onshore Scheme or along alongside tracks, such as within land parcel 328. The track through land parcel 238 will be utilised as an access route for the Kent Onshore Scheme. The scrub was primarily dominated by bramble, hawthorn and blackthorn (*Prunus spinosa*). Scrub habitat is suitable for a range of species including breeding birds, hazel dormouse (*Muscardinus avellana*), hedgehogs (*Erinaceus europaeus*) and reptiles, as well as foraging bats.

A2.2 - Scrub – scattered

- 3.3.A.3.23 Scattered scrub was present within the Kent Onshore Scheme, some dominated by blackthorn, while others were dominated by bramble. These areas of scrub were typically located along the banks of the ditches in Parcel 244. This habitat provided 'islands' of habitat for commuting bats, badgers (*Meles meles*), reptiles and hedgehogs (*Erinaceus europaeus*).

B2.2 - Neutral grassland - semi-improved

- 3.3.A.3.24 Semi-improved grasslands are habitats with some management in regard to agriculture, such as grazing or mowing. These grasslands were dominated by grass species such as cock's foot (*Dactylis glomerata*), Yorkshire fog (*Holcus lanatus*) and false oat grass, with some flowering species such as chamomile (*Chamaemelum nobile*), wild carrot (*Daucus carota*), hawkweed (*Leontodon species*) and common poppy also present. These habitats were present in land parcel 232 north of the river stour around the wildlife scrapes. These areas are sheep grazed at times during the year.



Image 3.3.A.3 - 'B2.2' - Neutral grassland - semi-improved (TR319629)

B6 – Poor semi-improved grassland

- 3.3.A.3.25 Poor semi-improved grassland was recorded via aerial mapping within land parcels 228 and 231. No access has been gained to these land parcels in order to ground truth the habitats.

G1 - Standing Water

- 3.3.A.3.26 Standing water was present within the ditches that cross the Kent Onshore Scheme. These ditches were stagnant and unmoving. There was a thick covering of vegetation including blanket weed (*Spirogyra sp.*), giant salvinia (*Salvinia molesta*) and duckweed (*Lemna sp.*) on the surface of the water.

F1 – Swamp

- 3.3.A.3.27 Southern reed (*Phragmites australis*) dominated beds of vegetation with occasional rosebay willowherb (*Chamerion angustifolium*) were present running along the majority of the ditches within land parcel 244, and 232, particularly those present within the western sections of the Kent Onshore Scheme (land parcel 232). Where reedbed habitat was present there was suitable food sources for water vole (*Arvicola amphibius*) and nesting habitat for bird species such as reed warbler (*Acrocephalus scirpaceus*).

C3.1 – Other tall herb and fern – ruderal

- 3.3.A.3.28 Ruderal vegetation was common along some areas of the ditches, in land parcel 244, and along the margins of the roads in land parcel 328. This ruderal vegetation consisted of typical wasteland species such as common nettle, Alexanders (*Symerium olustrum*), wild carrot and poison hemlock (*Conium maculatum*). Ruderal vegetation has some suitability for groups such as reptiles and amphibians.

J2.1.2 - Intact hedge - species-poor

3.3.A.3.29 Intact hedgerows are those hedgerows that do not contain gaps in vegetation. These hedgerows were located in land parcels 244, 255, 346 and 374a, within and adjacent to the Kent Onshore Scheme. The hedgerows contained hawthorn and blackthorn, as well as scrubby species such as bramble and ruderal plant species such as common nettle and poison hemlock.

J2.2.2 - Defunct hedge - species-poor

3.3.A.3.30 Defunct hedgerows have gaps that are no longer than 5m, per interval. These hedgerows were located in land parcels 244, 255 and 232, within and adjacent to the Kent Onshore Scheme. The hedgerows contained hawthorn, blackthorn and elder, with scrubby species such as bramble and ruderal species such as common nettle and poison hemlock.

J2.3.2 - Hedge with trees - species-poor

3.3.A.3.31 Hedgerows that contain trees were located in land parcels 244, 316, 232 and 359, within and adjacent to the Kent Onshore Scheme. Typical hedgerow species found within the proposed Kent Onshore Scheme draft Order Limits included blackthorn and hawthorn, with mature trees such as ash, willow (*Salix* sp.) and sycamore (*Acer pseudoplatanus*) present in some of the hedgerows.

Hedgerows Condition Assessment

3.3.A.3.32 The hedgerows within the Kent Onshore Scheme typically run along the edges of ditches and acted as the margins for the arable fields present. Using the criteria set out in the Hedgerow Regulations 1997 (Ref 3.3.4), the protected status of these hedgerows as well as their significance to the landscape were determined. Table 3.3.A.4 contains the results of these condition assessment.

Table 3.3.A.4 Hedgerow assessment results

Parcel	Hedgerow ID no.	Hedgerow type	Description	Condition assessment
374a	HD20	J2.1.2 - Intact hedge - species-poor	Intact hedge with invasive conifers present, with no connections and no adjacent features	Less than four woody species with no ORE features – hedgerow is not protected.
359	HD19	J2.3.2 - Hedge with trees - species-poor	Intact hedge with three woody species and no adjacent features	Less than four woody species with no ORE features – hedgerow is not protected.
346	HD12	J2.1.2 - Intact hedge - species-poor	Possessed five woody species, with a ditch running partially along the length of the hedge.	Five woody species with two ORE features – hedgerow is not protected.
316	HD1	J2.3.2 - Hedge with trees -	Four woody species present running along a	Four woody species with one ORE feature

Parcel	Hedgerow ID no.	Hedgerow type	Description	Condition assessment
		species-poor	right of way.	– hedgerow is not protected.
244	HD14	J2.1.2 - Intact hedge - species-poor	Intact hedge with mature trees every 50m running along a ditch.	Four woody species two ORE features – hedgerow is not protected.
	HD5	J2.2.2 - Defunct hedge - species-poor	Defunct hedge with less than four woody species present with no connections but adjacent to a ditch.	Four woody species with one ORE feature – hedgerow is not protected.
	HD6	J2.3.2 - Hedge with trees - species-poor	Intact hedge with mature trees every 50m running along a ditch.	Four woody species two ORE feature – hedgerow is not protected.
247	HD5	J2.2.2 - Defunct hedge - species-poor	Defunct hedge with less than four woody species present with connections to a woodland and is adjacent to a ditch.	Four woody species with three ORE features – hedgerow is not protected.
255	HD14	J2.1.2 - Intact hedge - species-poor	Intact hedge with five woody species which runs adjacent to both a ditch and a right of way.	Five woody species with three ORE features – hedgerow is not protected.
	HD15	J2.2.2 - Defunct hedge - species-poor	Possesses five woody species, with connection to a woodland whilst running partially along the length of a ditch.	Five woody species with three ORE features – hedgerow is not protected.
232	HD3	J2.2.2 - Defunct hedge - species-poor	Defunct hedge with five woody species that connects to another hedge with standard trees in 50m intervals.	Five woody species with two ORE features – Hedgerow is not protected
	HD2	J2.3.2 - Hedge with trees - species-poor	Intact hedge with five woody species running along a right of way and containing mature trees per every 50m.	Five woody species with two ORE features – Hedgerow is not protected

Summary of Habitats by Land Parcel

3.3.A.3.33 Table 3.3.A.5 highlights the areas of habitats within each land parcel within the Kent Onshore Scheme.

Table 3.3.A.5 Habitat summary within draft order limits by land parcel

Parcel	Areas access for survey	Habitat classification	Approximate areas within Kent Onshore Scheme
379 (38.3 ha) ⁷	No access aerial mapping only⁸	G1 – Standing water	0.3 ha
		H2.6 – Saltmarsh dense/continuous	1.6 ha
		J5 – Other habitat	36.2 ha
373 (1.1 ha)	No access aerial mapping only	C3.1 – Other tall herb and fern – ruderal	<0.1 ha
		G1 – Standing water	1.0 ha
		H2.6 – Saltmarsh – dense/continuous	0.1 ha
		J5 – Other habitat	<0.1 ha
		Z99 – hard standing	<0.1 ha
381 (0.3 ha)	No access aerial mapping only	G1 – Standing water	0.3 ha
380 (0.4 ha)	No access aerial mapping only	G1 – Standing water	0.1 ha
		Z99 – Hardstanding	0.1 ha
		J5 – Other habitat	0.2 ha
375	No access aerial mapping only	G1 – Standing water	<0.1 ha
		J5 – Other habitat	0.1 ha
		Z99 – Hardstanding	0.1 ha
382	No access aerial mapping only	Z99 – Hardstanding	<0.1 ha
384	No access aerial mapping only	J5 – Other habitat	<0.1 ha
385	No access aerial mapping only	J5 – Other habitat	<0.1 ha
		Z99 – Hardstanding	<0.1 ha
374a (9.6 ha)	On ground survey undertaken in 2022	A1.1.1 – Broadleaved woodland – semi-natural	0.3 ha
		A.3.1 – Broadleaved parkland/scattered trees	0.6 ha
		G2 – Running water	0.2 ha
		J1.2 – Cultivated/disturbed land – amenity grassland	8.2 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	Areas access for survey	Habitat classification	Approximate areas within Kent Onshore Scheme
		J5 – Other Habitat	0.3 ha
		Z99 – Hardstanding	0.1 ha
		A3.1 – Broadleaved parkland/scattered trees	1,116 m
		G2 – Running water	64 m
		J2.1.2 – Intact hedge – species poor	151 m
359 (3.0 ha)	On ground survey undertaken in 2022	C3.2 – Other tall herb and fern – non-ruderal	0.1 ha
		G2 – running water	<0.1 ha
		J1.2 – Cultivated/disturbed land – amenity grassland	2.7 ha
		J4 – Bare ground	<0.1 ha
		J3.6 – Buildings	<0.1 ha
		J5 – Other habitat	0.1 ha
		Z99 – Hardstanding	0.1 ha
		J2.3.2 – Hedge with trees – species poor	247 m
346 (12.3 ha)	On ground survey undertaken in 2023	A1.1.1 – Broadleaved woodland – semi-natural	0.1 ha
		A2.2 – Scrub – scattered	0.1 ha
		C3.1 – Other tall herb and fern – ruderal	<0.1 ha
		J1.1 – Cultivated/disturbed land – arable	12.1 ha
		J.1.2 Cultivated/disturbed land – amenity grassland	<0.1 ha
		Z99 – Hardstanding	<0.1 ha
		J2.1.2 – Intact hedge – species poor	42 m
346a (0.5 ha)	No access aerial mapping only	A.2.2 – Scrub – scattered	0.1 ha
		B2.2 – Neutral grassland – semi-improved	<0.1 ha
		J1.1 – Cultivated/disturbed land – arable	0.4 ha
		J2.1.2 – Intact hedge – species-poor	5 m

Parcel	Areas access for survey	Habitat classification	Approximate areas within Kent Onshore Scheme
336 (8.1 ha)	On ground survey undertaken in 2023	A1.1.2 – Broadleaved woodland – plantation	<0.1 ha
		A.2.1 – Scrub – dense/continuous	0.1 ha
		A.2.2 – Scrub – scattered	<0.1 ha
		B2.2 – Neutral grassland – semi-improved	<0.1 ha
		J.1. – Cultivated/disturbed land arable	8.0 ha
		Z99 – Hardstanding	<0.1 ha
		J2.1.2 – Intact hedge – species-poor	100 m
360 (1.9 ha)	On ground survey undertaken in 2023	A1.1.2 – Broadleaved woodland – plantation	0.2 ha
		A.2.1 – Scrub – dense/continuous	<0.1 ha
		B2.1 Neutral grassland – unimproved	0.1 ha
		J1.1 – Cultivated/disturbed land arable	1.5 ha
		Z99 – Hard standing	<0.1 ha
		J2.1.2 – Intact hedge – species-poor	12 m
328 (3.1 ha)	No access aerial mapping only	A.1.1.2 – Broadleaved woodland – plantation	0.3 ha
		A.2.1 – Scrub – dense/continuous	0.9 ha
		B6 – Poor semi-improved grassland	0.1 ha
		J1.1 cultivated/disturbed land – arable	<0.1 ha
		J5 – Other habitat	0.3 ha
		Z99 – Hardstanding	1.5 ha
		J2.1.2 – Intact hedge – species-poor	638 m
316 (3.9 ha)	On ground survey undertaken in 2023	A2.2 – Scrub – scattered	<0.1 ha
		C3.1 Other tall herb and fern – ruderal	0.1 ha

Parcel	Areas access for survey	Habitat classification	Approximate areas within Kent Onshore Scheme
		J1.1 – Cultivated/disturbed land – arable	3.9 ha
		Z99 – Hardstanding	<0.1 ha
		J2.3.2 – Hedge with trees – species poor	37 m
244 (66.1 ha)	On ground survey undertaken in 2023	A.2.1 – Scrub – dense/continuous	0.1 ha
		A.2.2 – Scrub – scattered	0.6 ha
		B2.2 – Neutral grassland – semi-improved	0.5 ha
		C3.1 – Other tall herb and fern – ruderal	0.2 ha
		F1 – Swamp	<0.1 ha
		G2 – Running water	1.0 ha
		J1.1 – Cultivated/disturbed land – arable	63.1 ha
		J.1.3 – Cultivated/disturbed land – ephemeral/short perennial	0.1 ha
		J4 – Bare ground	0.2 ha
		J5 – Other habitat	0.1 ha
		Z99 – Hardstanding	0.2 ha
		J2.1.2 – Intact hedge – species poor	1,323 m
		J2.2.2 – Defunct hedge species poor	582 m
		J2.3.2 – Hedge with trees – species-poor	223 m
247 (1.2 ha)	On ground survey undertaken in 2023	A.1.1.1 – Broadleaved woodland – semi-natural	<0.1 ha
		C3.1 – Other tall herb and fern – ruderal	0.1 ha
		G2 – running water	<0.1 ha
		J1.1 Cultivated/disturbed land – arable	1.0 ha
		J5 – Other habitat	0.1 ha
		Z99 – Hard standing	0.1 ha

Parcel	Areas access for survey	Habitat classification	Approximate areas within Kent Onshore Scheme
		J2.2.2 – Defunct hedge – species poor	89 m
255 (0.8 ha)	On ground survey undertaken in 2023	A1.1.1. – Broadleaved woodland – semi-natural	<0.1 ha
		B2.2 – Neutral grassland – semi-improved	<0.1 ha
		C3.1 – Other tall herb and fern – ruderal	<0.1 ha
		G2 – Running water	<0.1 ha
		J1.1 – Cultivated/disturbed land – arable	0.6 ha
		J5 – Other habitat	<0.1 ha
		Z99 – Hardstanding	0.1 ha
		J2.1.2 – Intact hedge – species-poor	242 m
		J2.2.2 – Defunct hedge – species poor	13 m
262 (<0.1 ha)	No access aerial mapping only	C3.1 – Other tall herb and fern – ruderal	<0.1 ha
		J5 – Other habitat	<0.1 ha
		Z99 – Hard standing	<0.1 ha
245 (0.2 ha)	No access aerial mapping only	J1.1 – Cultivated/disturbed land – arable	<0.1 ha
		J5 – Other habitat	<0.1 ha
		Z99 – Hardstanding	0.2 ha
240 (1 ha)	No access aerial mapping only	A3.1 – Broadleaved parkland/scattered trees	1 ha
232 (18.9 ha)	On ground survey undertaken in 2023	A1.1.1 – Broadleaved woodland – semi-natural	0.1 ha
		A1.1.2 – Broadleaved woodland – plantation	0.1 ha
		A2.1 – Scrub – dense/continuous	<0.1 ha
		A2.2 – Scrub – scattered	<0.1 ha
		B2.1 – Neutral grassland unimproved	0.6 ha
		B2.2 – Neutral grassland – semi-improved	5.6 ha

Parcel	Areas access for survey	Habitat classification	Approximate areas within Kent Onshore Scheme
		C3.1 – Other tall herb and fern – ruderal	<0.1 ha
		F1 – Swamp	0.2 ha
		G1 – Standing water	0.1 ha
		G2 – Running water	0.8 ha
		J1.1 – Cultivated/disturbed land – arable	10.8 ha
		J5 – Other habitat	0.1 ha
		Z99 – Hardstanding	0.1 ha
		F1 – Swamp	1,023 m
		J2.2.2 – Defunct hedge – species poor	989 m
		H2.3.2 Hedge with trees – species poor	1,036 m
339	On ground survey undertaken in 2023	Area not mapped	
238 (1.7 ha)	On ground survey undertaken in 2023	B2.2 – Neutral grassland – semi-improved	0.1 ha
		C3.1 – Other tall herb and fern – ruderal	0.2 ha
		G2 – Running water	0.1 ha
		J1.1 – Cultivated/disturbed land -arable	0.8 ha
		J4 – Bare ground	0.2 ha
		Z99 – Hardstanding	0.3 ha
		J2.2.2 – Defunct hedge – species-poor	48 m
237 (36.6)	No access aerial mapping only	Area not mapped	0.1 ha
		A2.2 – Scrub – scattered	<0.1 ha
		F2.1 – Marginal and inundation – marginal vegetation	4.1 ha
		G2 – Running water	1.0 ha
		J1.1 – Cultivated/disturbed land – arable	28.4 ha
		J5 – Other habitat	2.6 ha
		Z99 – Hardstanding	0.4 ha

Parcel	Areas access for survey	Habitat classification	Approximate areas within Kent Onshore Scheme
		J2.2.2 – Defunct hedge – species poor	354 m
		J2.3.2 – Hedge with trees – species-poor	364 m
231 (3.8 ha)	No access aerial mapping only	B6 – Poor-semi-improved grassland	3.6 ha
		G2 – Running water	0.1 ha
229 (4.3 ha)	No access aerial mapping only	B6 – Poor semi-improved grassland	2.1 ha
		F2.1 – Marginal and inundation – marginal vegetation	1.8 ha
		G2 – Running water	0.4 ha
		J5 – Other habitat	<0.1 ha
227 (3.4 ha)	No access aerial mapping only	G2 – Running water	<0.1 ha
		J5 – Other habitat	3.4 ha
228 (<0.1 ha)	No access aerial mapping only	G2 – Running water	<0.1 ha

Target Notes

3.3.A.3.34 Target notes to highlight more closely habitat and species features are provided in the table below.

Table 3.3.A.6 Target notes for habitats and species

Target Note reference	Location	Description	Photograph
382B-1	TR308631	Low potential bat roost tree	

399-1 TR308630 Low potential bat roost tree



232-1 TR310630 Noise heard within adjacent waterway, likely water vole or similar species No picture

373-1 TR342631 A stand of Alexander's was present, approximately 400 m southeast of the Kent Onshore Scheme in Pegwell Bay Country Park No picture

244-1 TR320631 Giant Salvinia in water course



244-2 TR329634 Low potential bat roost tree



244-3 TR329634 Low potential bat roost tree



244-4 TR321631 Owl roosting box



244-5 TR323632 Owl roosting box



250-1 TR330630 Compost pile, potential for reptiles

No picture

Protected and Notable Species

Badger

Desk study

- 3.3.A.3.35 The closest record of badger (*Meles meles*) within the desk study was located 1.5 km north of the Kent Onshore Scheme in 2017.
- 3.3.A.3.36 There is extensive suitable habitat for badger throughout the Kent Onshore Scheme, with habitat suitable for both foraging and excavation of setts and sufficient to support a number of social groups.

Field survey

- 3.3.A.3.37 A potential badger sett was recorded within the woodland during the walkover surveys. The habitats and ground conditions provide significant opportunity to badgers across the Kent Onshore Scheme. These habitats include earthen banks, woodland, agricultural fields and areas of mixed scrub, grassland, and hedgerow.

Bats

Desk study

- 3.3.A.3.38 There are recent records of bats within 5 km of the Kent Onshore Scheme, covering serotine (*Eptesicus serotinus*), Daubenton's (*Myotis daubentonii*), Leisler's (*Nyctalus leisleri*), noctule (*Nyctalus noctula*), Nathusius' pipistrelle (*Pipistrellus nathusii*), common pipistrelle (*Pipistrellus pipistrellus*), soprano pipistrelle (*Pipistrellus pygmaeus*), and brown long-eared (*Plecotus auritus*) bats. All species were recorded at their closet 900m east or south of the Kent Onshore Scheme in 2016.
- 3.3.A.3.39 There is a single granted European Protected Species Mitigation Licence (EPSML) within 5km of the Kent Onshore Scheme within the last 10 years, for destruction of a roost. The EPSML application was located 800 m from the Kent Onshore Scheme (2015-16862-EPS-NSIP2) undertaken in 2017. This is the closest record of bats to the Kent Onshore Scheme.

Field survey

Potential for roosting bats

- 3.3.A.3.40 Table 3.3.A.7 summarises trees that have potential to be bat roosts within the Kent Onshore Scheme.

Table 3.3.A.7 Trees with potential to support bat roosts

Tree species	Feature description	Potential	Location	Relevant Target Note	Photograph
Oak	Ivy cladding	Low	TR308631	232b-1	
Ash	Ivy cladding	Low	TR308630	399-1	
Willow	Ivy cladding	Low	TR328634	244-2	

Tree species	Feature description	Potential	Location	Relevant Target Note	Photograph
Willow	Ivy cladding	Low	TR328634	244-3	

Potential for foraging and commuting

- 3.3.A.3.41 The habitats within the Kent Onshore Scheme provide resources and structure to support foraging and commuting. The watercourses and marginal vegetation, woodland, and hedgerows provide invertebrate food sources and navigation routes.

Hazel Dormouse

Desk study

- 3.3.A.3.42 There are three recent records of hazel dormouse (*Muscardinus avellana*) within 2km of the Kent Onshore Scheme. These are granted EPSMLs associated with Port Richborough which is approximately 800 m from the Kent Onshore Scheme. The applications allow impact, damage, and destruction of resting and breeding sites and range from 2017 to 2018 (2015-16799-EPS-NSIP2, 2015-16799-EPS-NSIP2-1, 2015-16799-EPS-NSIP2-2).

Field survey

- 3.3.A.3.43 Many of the parcels contain isolated or poorly connected lines of hedgerow, woodland and scrub habitats. Hazel itself is rare throughout the Kent Onshore Scheme and was present in only three parcels. However, suitable habitats present often contained other potential foodplants for hazel dormouse such as blackthorn (*Prunus spinosa*), dog rose (*Rosa canina*), and hawthorn (*Crataegus monogyna*).

Otter, Water Vole and Beaver

Desk study

- 3.3.A.3.44 The close record of otter returned was 1.7 km south in 2016. The closest record for water vole (*Arvicola amphibius*) was located 340 north west of the Kent Onshore Scheme in 2015, and of European beaver (*Castor fibre*) the closest record was 424 km north of the Kent Onshore Scheme in 2014.

Field survey

- 3.3.A.3.45 There are many wet ditches with suitable banks for water vole burrows within and adjacent to the Kent Onshore Scheme. Additionally, the network of streams, ditches and marshland adjacent to the Kent Onshore Scheme as well as the River Stour which runs through the Kent Onshore Scheme is suitable for all three species.
- 3.3.A.3.46 A water vole was heard calling during a walk over survey in June 2023 (TR308628) within the bounds of land parcel 232. Anecdotal evidence from sub-contractors during bird surveys on for the Kent Onshore Scheme also suggest that beaver is present in suitable habitats within close proximity to the Kent Onshore Scheme.

Reptiles

Desk study

- 3.3.A.3.47 There are recent records of common lizard (*Zootoca vivipara*), slow worm (*Anguis fragilis*), and grass snake (*Natrix helvetica*) within the 2 km of the Kent Onshore Scheme. The closest record of all three are located within the Kent Onshore Scheme in 2020.
- 3.3.A.3.48 The most recent record of sand lizard within 2 km of the Kent Onshore Scheme was from 2018 in Sandwich Bay NNR, 1.5 km from the Kent Onshore Scheme. Sand lizards dig burrows to lay eggs in sandy banks. There was no suitable habitat for breeding for sand lizard within the Kent Onshore Scheme.

Field survey

- 3.3.A.3.49 There is suitable habitat for all common reptiles within and adjacent to the Kent Onshore Scheme. Suitable habitat includes grassland, scrub, and ruderal habitats, wet ditches and marginal vegetation which provide a varied habitat composition for foraging and shelter. Spoil heaps, bare ground and earthen banks can provide basking opportunities.

Great Crested Newt

Desk study

- 3.3.A.3.50 No records of great crested newt were returned within 2 km of the Kent Onshore Scheme. No European protected species mitigation licenses (EPSML) for great crested newts are present within 2 km of the Kent Onshore Scheme.
- 3.3.A.3.51 Suitable aquatic habitat (e.g., ponds and networks of ditches) and terrestrial habitat (scrub, rough grassland, arable field margins etc.) are present throughout land within and adjacent to the Kent Onshore Scheme. It is possible, that great crested newt could have either colonised habitats in the intervening years or are present but unrecorded in the surrounding area.

Field survey

- 3.3.A.3.52 There are suitable waterbodies present within the Kent Onshore Scheme and within 500 m of the Kent Onshore Scheme. There is also a range of suitable terrestrial habitats including hedgerows, grassland, woodland, and arable margin.

Birds

Desk study

- 3.3.A.3.53 There are recent records for bird species within 2km of the Kent Onshore Scheme. These include species listed on Annex I of the EC Birds Directive (Ref 3.3.3) Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) (Ref 3.3.7), Birds of Conservation Concern 5 (BoCC5) red list (Ref 3.3.12) and the BoCC5 Amber list (Ref 3.3.13). The records also include birds that are priority species in Kent listed in the Kent Red Data Book (Ref 3.3.13).
- 3.3.A.3.54 The Thanet Coast and Sandwich Bay SPA and Ramsar site (directly east of the surface works in the Scheme and which will be crossed below ground through no-dig methods) has value for breeding and wintering birds, supporting internationally important populations of ruddy turnstone (*Arenaria interpres*), golden plover (*Pluvialis apricaria*) and little tern (*Sternula albifrons*). The Sandwich Bay to Hacklinge Marshes SSSI is of national importance for dunlin (*Calidris alpina*), oystercatcher (*Haematopus ostralegus*), curlew (*Numenius arquata*), redshank (*Tringa Anguill*), common ringed plover (*Charadrius hiaticula*), grey plover (*Pluvialis squatarola*), and sanderling (*Calidris alba*). Stodmarsh SPA and Ramsar (7.3 km to the west of the Kent Onshore Scheme) provides breeding and wintering habitat for several wetland bird species, particularly waterfowl such as gadwall (*Anas strepera*).
- 3.3.A.3.55 Farmland and intertidal and marshland habitats within the Kent Onshore Scheme are suitable for wintering waterfowl and waders and there is the potential for SPA, Ramsar and SSSI designated species to utilise the Kent Onshore Scheme during migration and wintering periods as well as other protected and notable bird species during both the breeding and wintering seasons.

Field survey

- 3.3.A.3.56 The Kent Onshore Scheme is suitable for common nesting species, as well as being suitable to support more notable and protected species or assemblages during migration and wintering periods.
- 3.3.A.3.57 Two barn owl (*Tyto alba*) boxes were located on within the Kent Onshore Scheme, suggesting the likely presence within the surrounding area.
- 3.3.A.3.58 Suitable habitat for protected and notable birds was identified in all areas of the Kent Onshore Scheme for breeding and foraging, including arable fields, hedgerows and scrub, grassland, reed beds and marginal vegetation, woodlands and individual trees.
- 3.3.A.3.59 Sightings and soundings of Red List Birds of Conservation Concern (Stanbury, et al., 2021) within the Kent Onshore Scheme, during the walkovers include; swift (*Apus apus*), herring gull (*Larus argentatus*), starling (*Sturnus vulgaris*) and house sparrow (*Passer domesticus*). Sightings and soundings of Amber List Birds of Conservation Concern (Stanbury, et al., 2021) within the Kent Onshore

Scheme include; stock dove (*Columba oenas*), black-headed gull (*Chroicocephalus ridibundus*), and kestrel (*Falco tinnunculus*).

Fish

Desk study

- 3.3.A.3.60 There were no records of protected or notable fish species returned within 2 km of the Kent Onshore Scheme in the last 10 years.

Field survey

- 3.3.A.3.61 A detailed survey of the rivers, streams and ditches were not undertaken for fish species. However, the River Stour and Minster Stream are likely to be suitable for notable fish species including European eel (*Anguilla anguilla*). Surveys for fish and aquatic invertebrates will be undertaken for the DCO on watercourses to be affected.

Terrestrial Invertebrates

Desk study

- 3.3.A.3.62 Fifty-four terrestrial invertebrate species of principal importance were recorded within 2 km of the Kent Onshore Scheme within the last 10 years. There were also species included in the Kent Red Data Book, Nationally Rare, Scarce and Notable as well as Kent and UK BAP species recorded within the desk study within 2 km of the Kent Onshore Scheme.
- 3.3.A.3.63 The Sandwich Bay and Hacklinge Marshes SSSI is noted for its invertebrate interest. The dunes support the nationally rare carthusian snail (*Monacha sp.*) and nationally scarce grey bush cricket, as well as nationally rare moths including restharrow (*Aplasta ononaria*).
- 3.3.A.3.64 The closest record of restharrow for which Sandwich Bay and Hanglinge Marshes SSSI is noted for was 497 m north east of the Kent Onshore Scheme in 2016. The other notable invertebrate species closest records are located in Annex 1 of this report.

Field survey

- 3.3.A.3.65 A detailed survey for terrestrial invertebrate species was not undertaken. However, the habitats within the Kent Onshore Scheme are suitable to support notable terrestrial invertebrate species including open mosaic habitats, reedbeds and wet ditches, floodplain and deadwood.

Aquatic Invertebrates

Desk study

- 3.3.A.3.66 No protected or notable aquatic invertebrates were recorded within 2 km of the Kent Onshore Scheme over the last 10 years.

Field survey

- 3.3.A.3.67 A detailed survey for aquatic invertebrate species was not undertaken. However, there are a number of habitats within the Kent Onshore Scheme which are suitable to support notable aquatic invertebrates including ponds, wet ditches, streams, reedbeds and marginal vegetation as well as the River Stour itself.

Other Notable Fauna

Desk study

- 3.3.A.3.68 The Kent Biological Records Centre returned records of five notable species; smooth newt (*Lissotriton vulgaris*), west european hedgehog (*Erinaceus europaeus*), brown hare (*Lepus europaeus*), and two marine species grey seal (*Halichoerus grypus*) and harbour seal (*Phoca vitulina*) within 2 km of the Kent Onshore Scheme within the last 10 years. The closest record of smooth newt was located within 900 m of the Kent Onshore Scheme, western hedgehog; 1.5 km north in 2021, and brown hare was located within the Kent Onshore Scheme in 2021. The marine species grey seal was located 495 m north east in 2015 and harbour seal 1.3 km east in 2015.

Field Survey

- 3.3.A.3.69 A detailed survey for notable faunal species was not undertaken. No incidences of these notable species were recorded during the walkovers. However, the habitats within the Kent Onshore Scheme are suitable for a number of notable species including European hedgehog (*Erinaceus europaeus*), brown hare (*Lepus europaeus*), harvest mouse (*Micromys minutus*), common toad (*Bufo bufo*) and water shrew (*Neomys fodiens*) all of which were returned within the desk study but at distances greater than 2 km. west European hedgehog, brown hare, and harbour seal are all species of principal importance.

Notable Flora

Desk study

- 3.3.A.3.70 The data search returned records of a single plant species within 2 km of the Kent Onshore Scheme within the last 10 years; which is listed on Schedule 8 of the Wildlife and Countryside Act (1981) as amended (Ref 3.3.7). Additionally the desk study returned eight species of principal importance. The closest record of lizard orchid (*Himantoglossum hircinum*), was located 1.3 km south of the Kent Onshore Scheme in 2020. The closest species of principal importance were knot grass (*Acrionicta rumicis*) which was located within the Kent Onshore Scheme in 2016 and man orchid (*orchis anthropophora*) which was recorded 70 m north of the Kent Onshore Scheme in 2020.

Field survey

- 3.3.A.3.71 A detailed survey for notable floral species was not undertaken. No incidences of notable species were recorded during the walkovers. However, the habitats within the Kent Onshore Scheme are suitable for notable plant species.

Invasive Non-Native Species

Desk study

3.3.A.3.72 The data search returned three plant species, and seven animal species listed on Schedule 9 of the Wildlife and Countryside Act (1981) as amended (Ref 3.3.7), or on the Invasive Alien Species (Enforcement and Permitting) Order 2019 (Ref 3.3.6), within the 2 km of the Kent Onshore Scheme within the last 10 years. These species are listed in the below table;

Table 3.3.A.8 Invasive non-native species recorded in the desk study

Species	Schedule 9 of the Wildlife and Countryside Act	Invasive Alien Species (Enforcement and Permitting) Order 2019	Closest record to Kent Onshore Scheme
Wall Cotoneaster (<i>Cotoneaster horizontalis</i>)	✓		Within 1.5 km NE, 2018
Yellow archangel (<i>Lamiastrum galeobdolon</i> subsp. <i>argentatum</i>)	✓		Within 1.5 km N, 2016
Japanese rose (<i>Rosa rugosa</i>)	✓		Within 1.5 km, E, 2013
Marsh frog (<i>Pelophylax ridibundus</i>)	✓		900 m, E, 2016
Mandarin duck (<i>Aix galericulata</i>)	✓		260 m, E, 2019
Egyptian goose (<i>Alopochen aegyptiacus</i>)	✓	✓	270 m, S, 2019
Canada goose (<i>Branta canadensis</i>)	✓		Within 2 km, 2019
Red-crested pochard (<i>Netta rufina</i>)	✓		Within 2 km, 2015
Ring-necked parakeet (<i>Psittacula krameri</i>)	✓		Within 2 km, 2019
Ruddy shelduck (<i>Tadorna ferruginea</i>)	✓		Within 2 km, 2016

Field Survey

- 3.3.A.3.73 A detailed survey for invasive non-native species (INNS) was not undertaken. Incidences where INNS were recorded on the walkover have been noted, however, this does not confirm absence of other species. INNS that were observed within the Kent Onshore Scheme were buddleia (*Buddleia davidii*), and cherry laurel (*Prunus laurocerasus*). Perfoliate Alexander's (*Smyrnium perfoliatum*) located at (TR342631) which is a Schedule 9 species was located around 400 m southeast of the Kent Onshore Scheme within Pegwell Bay Country Park.
- 3.3.A.3.74 During the field survey many of the wet ditches, particularly in the west of land parcel 244, contained extensive growth of giant salvinia (*Salvinia molesta*). This species was previously listed under the Schedule 9 of the Wildlife and Countryside Act 1981 as amended, having been removed from this in 2021 (Ref 3.3.7).

3.3.A.4 References

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- Ref 3.3.6 - HM Government. 2019. The Invasive Alien Species (Enforcement and Permitting) Order 2019. Retrieved from legislation.gov.uk: <https://www.legislation.gov.uk/ukxi/2019/527/made> [Accessed 13 September 2023]
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- Ref 3.3.12 - Stanbury, A., Eaton, M, Aebischer, N., Balmer, D., Brown, A., Douse, A., Win, I. 2021. The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and Isle of Man and Second IUCN Red List Assessment of extinction risk for Great Britain. British Birds, 114: 723-747. Retrieved from bto.org: <https://britishbirds.co.uk/content/status-our-bird-populations> [Accessed 13 September 2023]

Ref 3..3.13 - Waite, A. 2000. The Kent red data book: a provisional guide to the rare and threatened flora and fauna of Kent. Maidstone: Kent Wildlife Trust, Kent County Council.

Annex A Species Data Records Summary

3.3.A.4.1 Table below contains a summary of the results of the desk study for the Kent Onshore Scheme showing records for protected and notable species of reptiles, birds, higher plants, invertebrates and mammals within 2 km of the Kent Onshore Scheme boundary (5 km for bats).

Annex A 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								
Common frog	<i>Rana temporaria</i>	Y	-	-	-	Y	2 km, S, 2017	1.8 km, NE, 2015
Common toad	<i>Bufo bufo</i>	Y	Y	-	-	Y	1.5 km, S, 2018	1.5 km, S, 2018
Smooth newt	<i>Lissotriton vulgaris</i>	Y	-	-	-	Y	900 m, E, 2016	900 m, E, 2016
Marsh frog	<i>Pelophylax ridibundus</i>	INNS	-	-	-	Y	900 m, E, 2016	900 m, E, 2016
Mammals (Bats)								
Serotine	<i>Eptesicus serotinus</i>	Y	-	Y	-	Y	900 m, E, 2016	900 m, S, 2016

Daubenton's bat	<i>Myotis daubentonii</i>	Y	-	-	-	Y	900 m, E, 2016	900 m, E, 2016
Leisler's bat	<i>Nyctalus leisleri</i>	Y	-	-	-	Y	900 m, E, 2016	900 m, E, 2016
Noctule bat	<i>Nyctalus noctula</i>	Y	Y	-	-	Y	1.9 km, S, 2019	900 m, S, 2016
Brown long-eared bat	<i>Plecotus auritus</i>	Y	Y	-	-	Y	900 m, E, 2016	900 m, S, 2016
Common pipistrelle	<i>Pipistrellus pipistrellus</i>	Y	-	-	-	Y	1.9 km, S, 2019	900 m, S, 2016
Soprano pipistrelle	<i>Pipistrellus pygmaeus</i>	Y	-	-	-	Y	1.0 km, N, 2020	900 m, S, 2016
Nathusius' pipistrelle	<i>Pipistrellus nathusii</i>	Y	-	-	-	Y	1.9 km, S, 2019	900 m, S, 2016
Mammals (excl. Bats)								
European water vole	<i>Arvicola amphibius</i>	Y	Y	Y	-	Y	342 m, S, 2021	340 m, NW, 2015
Beaver	<i>Castor fiber</i>		-	-	-	Y	424 m, N, 2014	424 m, N, 2014
West European hedgehog	<i>Erinaceus europaeus</i>	-	Y	Y	-	Y	1.5 km, N, 2021	1.5 km, N, 2021
Grey seal	<i>Halichoerus grypus</i>	Y	-	-	-	Y	495 m, NE, 2015	495 m, NE, 2015
Brown hare	<i>Lepus europaeus</i>		Y	-	-	Y	Within Kent Onshore Scheme, 2021	Within Kent Onshore Scheme, 2021

Eurasian otter	<i>Lutra lutra</i>	Y	Y	-	-	Y	1.7 km, S, 2016	1.7 km, S, 2016	
Eurasian badger	<i>Meles meles</i>	Y	-	-	-	Y	1.5 km, N, 2017	1.5 km, N, 2017	
Harbour seal	<i>Phoca vitulina</i>	Y	Y	-	-	Y	2 km, E, 2021	1.3 km, E, 2015	
Reptiles									
Common lizard	<i>Zootoca vivipara</i>	Y	Y	-	Y	Y	Within Kent Onshore Scheme, 2020	Within Kent Onshore Scheme, 2020	
Slow-worm	<i>Anguis fragilis</i>	Y	Y	-	Y	Y	Within Kent Onshore Scheme, 2020	Within Kent Onshore Scheme, 2020	
Sand lizard	<i>Lacerta agilis</i>	Y	Y	-	-	Y	1.5 km, E, 2018	1.5 km, E, 2018	
Grass snake	<i>Natrix helvetica</i>	Y	Y	-	Y	Y	Within Kent Onshore Scheme, 2020	Within Kent Onshore Scheme, 2020	
Birds									
Sparrowhawk	<i>Accipiter nisus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019	
Sedge warbler	<i>Acrocephalus schoenobaenus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019	

Reed warbler	<i>Acrocephalus scirpaceus</i>	-	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Common sandpiper	<i>Actitis hypoleucos</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Long-tailed tit	<i>Aegithalos caudatus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Mandarin duck	<i>Aix galericulata</i>	INNS	-	-	-	Y	260 m, E, 2019	260 m, E, 2019
Skylark	<i>Alauda arvensis</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Razorbill	<i>Alca torda</i>	-	-	Y	-		Within 2 km, 2019	Within 2 km, 2019
Kingfisher	<i>Alcedo atthis</i>	Y	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Little auk	<i>Alle alle</i>	-	-	-	-	Y	Within 2 km, 2016	Within 2 km, 2016
Egyptian goose	<i>Alopochen aegyptiacus</i>	INNS	-	-	-	Y	270 m, S, 2019	270 m, S, 2019
Pintail	<i>Anas acuta</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Shoveler	<i>Anas clypeata</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Teal	<i>Anas crecca</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Wigeon	<i>Anas penelope</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Mallard	<i>Anas platyrhynchos</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Garganey	<i>Anas querquedula</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019

Gadwall	<i>Anas strepera</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
White-fronted goose	<i>Anser albifrons</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Greylag goose	<i>Anser anser</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Pink-footed goose	<i>Anser brachyrhynchus</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Bean goose	<i>Anser fabalis</i>	-	-	Y	-	Y	Within 2 km, 2018	Within 2 km, 2018
Rock pipit	<i>Anthus petrosus</i>	-	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Meadow pipit	<i>Anthus pratensis</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Water pipit	<i>Anthus spinoletta</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Tree pipit	<i>Anthus trivialis</i>	-	Y	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Swift	<i>Apus apus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Grey heron	<i>Ardea cinerea</i>	-	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Turnstone	<i>Arenaria interpres</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Short-eared owl	<i>Asio flammeus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Long-eared owl	<i>Asio otus</i>	-	-	-	-	Y	Within 2 km, 2018	Within 2 km, 2018
Little owl	<i>Athene noctua</i>	-	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019

Pochard	<i>Aythya ferina</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Tufted duck	<i>Aythya fuligula</i>	-	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Scaup	<i>Aythya marila</i>	Y	Y	Y	-	Y	260 m, E, 2018	260 m, E, 2018
Waxwing	<i>Bombycilla garrulus</i>	-	-	-	-	Y	Within 2 km, 2018	Within 2 km, 2018
Brent goose	<i>Branta bernicla</i>	-	Y	Y	-	Y	548 m, E, 2018	Within 2 km, 2019
Canada goose	<i>Branta canadensis</i>	INNS	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Barnacle goose	<i>Branta leucopsis</i>		-	Y	-	Y	260 m, E, 2017	Within 2 km, 2019
Cattle egret	<i>Bubulcus ibis</i>	-	-	Y	-	Y	270 m, S, 2019	270 m, S, 2019
Goldeneye	<i>Bucephala clangula</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Stone-curlew	<i>Burhinus oedicephalus</i>	Y	Y	Y	-	Y	270 m, S, 2017	270 m, S, 2017
Common buzzard	<i>Buteo buteo</i>		-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Lapland bunting	<i>Calcarius lapponicus</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Sanderling	<i>Calidris alba</i>		-	Y	-	Y	Within 2 km, 2019	677 m, N, 2016
Dunlin	<i>Calidris alpina</i>		-	Y	-	Y	677 m, N, 2019	677 m, N, 2019
Knot	<i>Calidris canutus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019

Curlew sandpiper	<i>Calidris ferruginea</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Purple sandpiper	<i>Calidris maritima</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Little stint	<i>Calidris minuta</i>		-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Lesser redpoll	<i>Acanthis cabaret</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Linnet	<i>Linaria cannabina</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Greenfinch	<i>Chloris chloris</i>		-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Common redpoll	<i>Acanthis flammea</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Twite	<i>Linaria flavirostris</i>	-	Y	Y	-	Y	Within 2 km, 2015	Within 2 km, 2015
Siskin	<i>Spinus spinus</i>	-	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Treecreeper	<i>Certhia familiaris</i>	-	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Cetti's warbler	<i>Cettia cetti</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Little ringed plover	<i>Charadrius dubius</i>	Y	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Ringed rlover	<i>Charadrius hiaticula</i>		-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Dotterel	<i>Charadrius morinellus</i>	-	-	Y	-	Y	Within 2 km, 2016	Within 2 km, 2016
White stork	<i>Ciconia ciconia</i>	-	-	-	-	Y	548 m, E, 2018	548 m, E, 2018

Marsh harrier	<i>Circus aeruginosus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Hen harrier	<i>Circus cyaneus</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Montagu's harrier	<i>Circus pygargus</i>	-	-	Y	-	Y	270 m, S, 2016	270 m, S, 2016
Long-tailed duck	<i>Clangula hyemalis</i>	Y	-	Y	-	Y	677 m, N, 2017	677 m, N, 2017
Hawfinch	<i>Coccothraustes</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Stock dove	<i>Columba oenas</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Wood pigeon	<i>Columba palumbus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Raven	<i>Corvus corax</i>	-	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Rook	<i>Corvus frugilegus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Quail	<i>Coturnix coturnix</i>	-	-	Y	-	Y	Within 2 km, 2019	677 m, N, 2014
Bewick's swan	<i>Cygnus columbianus</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Whooper swan	<i>Cygnus cygnus</i>	Y	-	Y	-	Y	Within 2 km, 2018	Within 2 km, 2018
Mute swan	<i>Cygnus olor</i>	-	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
House martin	<i>Delichon urbica</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Great spotted woodpecker	<i>Dendrocopus major</i>	-	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019

Lesser spotted woodpecker	<i>Dendrocopus minor</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Great white egret	<i>Egretta alba</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Little egret	<i>Egretta garzetta</i>	Y	-	-	-	Y	677 m, N, 2013	Within 2 km, 2019
Yellowhammer	<i>Emberiza citrinella</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Reed bunting	<i>Emberiza schoeniclus</i>	Y	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Shorelark	<i>Eremophila alpestris</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2017
Merlin	<i>Falco columbarius</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Peregrine	<i>Falco peregrinus</i>	Y	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Hobby	<i>Falco subbuteo</i>	Y	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Kestrel	<i>Falco tinnunculus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Brambling	<i>Fringilla montifringilla</i>	Y	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Fulmar	<i>Fulmarus glacialis</i>	-	-	Y	-	Y	270 m, S, 2019	Within 2 km, 2019
Snipe	<i>Gallinago gallinago</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Moorhen	<i>Gallinula chloropus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019

Black-throated diver	<i>Gavia arctica</i>	Y	-	Y	-	Y	270 m, S, 2018	Within 2 km, 2019
Great northern diver	<i>Gavia immer</i>	Y	-	Y	-	Y	270 m, S, 2018	Within 2 km, 2019
Red-throated diver	<i>Gavia stellata</i>	Y	-	-	-	Y	270 m, S, 2019	270 m, S, 2019
Crane	<i>Grus grus</i>	Y	-	Y	-	Y	677 m, N, 2017	677 m, N, 2017
Oystercatcher	<i>Haematopus ostralegus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Black-winged stilt	<i>Himantopus himantopus</i>	Y	-	Y	-	Y	Within 2 km, 2018	Within 2 km, 2018
Storm petrel	<i>Hydrobates pelagicus</i>	Y	-	Y	-	Y	2 km, S, 2017	2 km, S, 2017
Red-backed shrike	<i>Lanius collurio</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Herring gull	<i>Larus argentatus</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Caspian gull	<i>Larus cachinnans</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Common gull	<i>Larus canus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Lesser black-backed gull	<i>Larus fuscus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Iceland gull	<i>Larus glaucooides</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Glaucous gull	<i>Larus hyperboreus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Great black-backed gull	<i>Larus marinus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019

Mediterranean gull	<i>chthyaetus melanocephalus</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Yellow-legged gull	<i>Larus michahellis</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Little gull	<i>Hydrocoloeus minutus</i>	Y	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Black-headed gull	<i>Chroicocephalus ridibundus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Bar-tailed godwit	<i>Limosa lapponica</i>	Y	-	Y	-	Y	Within 2 km, 2019	548 m, E, 2018
Black-tailed godwit	<i>Limosa limosa</i>	Y	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Savi's warbler	<i>Locustella luscinioides</i>	Y	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Grasshopper warbler	<i>Locustella naevia</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Common crossbill	<i>Loxia curvirostra</i>	Y	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Woodlark	<i>Lullula arborea</i>	Y	Y	-	-	Y	Within 2 km, 2018	Within 2 km, 2018
Nightingale	<i>Luscinia megarhynchos</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Velvet scoter	<i>Melanitta fusca</i>	Y	-	Y	-	Y	260 m, E, 2017	260 m, E, 2017
Common scoter	<i>Melanitta nigra</i>	Y	Y	Y	-	Y	260 m, E, 2019	260 m, E, 2019
Smew	<i>Mergus albellus</i>	Y	-	Y	-	Y	Within 2 km, 2018	Within 2 km, 2018
Red-breasted merganser	<i>Mergus serrator</i>	-	-	Y	-	Y	260 m, E, 2019	260 m, E, 2019

Corn bunting	<i>Miliaria calandra</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Red kite	<i>Milvus milvus</i>	Y	-	-	-	Y	2 km, S, 2018	Within 2 km, 2019
Gannet	<i>Morus bassanus</i>	-	-	Y	-	Y	677 m, N, 2017	Within 2 km, 2019
Grey wagtail	<i>Motacilla cinerea</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Yellow wagtail	<i>Motacilla flava</i>	-	Y	Y	-	Y	Within 2 km, 2018	Within 2 km, 2018
Spotted flycatcher	<i>Muscicapa striata</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Red-crested pochard	<i>Netta rufina</i>	INNS	-	-	-	Y	Within 2 km, 2015	Within 2 km, 2015
Curlew	<i>Numenius arquata</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Whimbrel	<i>Numenius phaeopus</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Wheatear	<i>Oenanthe oenanthe</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Osprey	<i>Pandion haliaetus</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Bearded tit	<i>Panurus biarmicus</i>	Y	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Willow tit	<i>Parus montanus</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
House sparrow	<i>Passer domesticus</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Tree sparrow	<i>Passer montanus</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019

Grey partridge	<i>Perdix perdix</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Shag	<i>Phalacrocorax aristotelis</i>	-	-	Y	-	Y	270 m, S, 2019	270 m, S, 2019
Red-necked phalarope	<i>Phalaropus lobatus</i>	Y	-	Y	-	Y	Within 2 km, 2017	Within 2 km, 2017
Ruff	<i>Philomachus pugnax</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Black redstart	<i>Phoenicurus ochruros</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Redstart	<i>Phoenicurus phoenicurus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Yellow-browed warbler	<i>Phylloscopus inornatus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Wood warbler	<i>Phylloscopus sibilatrix</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Willow warbler	<i>Phylloscopus trochilus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Spoonbill	<i>Platalea leucorodia</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Snow bunting	<i>Plectrophenax nivalis</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Golden plover	<i>Pluvialis apricaria</i>	Y	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Grey plover	<i>Pluvialis squatarola</i>	-	-	Y	-	Y	Within 2 km, 2019	677 m, N, 2016
Slavonian grebe	<i>Podiceps auritus</i>	Y	-	Y	-	Y	260 m, E, 2019	260 m, E, 2020

Red-necked grebe	<i>Podiceps grisegena</i>	Y	-	Y	-	Y	260 m, E, 2016	Within 2 km, 2018
Black-necked grebe	<i>Podiceps nigricollis</i>	Y	-	Y	-	Y	260 m, E, 2019	260 m, E, 2019
Ring-necked parakeet	<i>Psittacula krameri</i>	INNS	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Balearic shearwater	<i>Puffinus mauretanicus</i>	-	Y	Y	-	Y	Within 2 km, 2014	Within 2 km, 2014
Bullfinch	<i>Pyrrhula pyrrhula</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Avocet	<i>Recurvirostra avosetta</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Firecrest	<i>Regulus ignicapillus</i>	Y	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Kittiwake	<i>Rissa tridactyla</i>	-	-	Y	-	Y	Within 2 km, 2019	260 m, E, 2016
Whinchat	<i>Saxicola rubetra</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Stonechat	<i>Saxicola torquata</i>	Y	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019
Woodcock	<i>Scolopax rusticola</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Eider	<i>Somateria mollissima</i>	-	-	Y	-	Y	260 m, E, 2019	260 m, E, 2019
Arctic skua	<i>Stercorarius parasiticus</i>	-	-	Y	-	Y	270 m, S, 2017	270 m, S, 2017
Great skua	<i>Stercorarius skua</i>	-	-	Y	-	Y	Within 2 km, 2019	270 m, S, 2017

Little tern	<i>Sterna albifrons</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Roseate tern	<i>Sterna dougallii</i>	Y	Y	Y	-	Y	Within 2 km, 2019	260 m, E, 2018
Common tern	<i>Sterna hirundo</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Arctic tern	<i>Sterna paradisaea</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Sandwich tern	<i>Sterna sandvicensis</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Turtle dove	<i>Streptopelia turtur</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Tawny owl	<i>Strix aluco</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Starling	<i>Sturnus vulgaris</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Dartford warbler	<i>Sylvia undata</i>	Y	-	Y	-	Y	Within 2 km, 2018	Within 2 km, 2018
Ruddy shelduck	<i>Tadorna ferruginea</i>	INNS	-	-	-	Y	Within 2 km, 2016	frog
Shelduck	<i>Tadorna tadorna</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Spotted redshank	<i>Tringa erythropus</i>		-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019
Greenshank	<i>Tringa nebularia</i>	Y	-	Y		Y	Within 2 km, 2019	Within 2 km, 2019
Green sandpiper	<i>Tringa ochropus</i>	Y	-	Y		Y	Within 2 km, 2019	Within 2 km, 2019
Redshank	<i>Tringa totanus</i>		-	Y		Y	Within 2 km, 2019	Within 2 km, 2019

Wren	<i>Troglodytes troglodytes</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019	
Redwing	<i>Turdus iliacus</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019	
Song thrush	<i>Turdus philomelos</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019	
Fieldfare	<i>Turdus pilaris</i>	Y	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019	
Ring ouzel	<i>Turdus torquatus</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019	
Mistle thrush	<i>Turdus viscivorus</i>	-	-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019	
Barn owl	<i>Tyto alba</i>	Y	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019	
Hoopoe	<i>Upapa epops</i>	Y	-	-	-	Y	Within 2 km, 2019	Within 2 km, 2019	
Guillemot	<i>Uria aalge</i>		-	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019	
Lapwing	<i>Vanellus vanellus</i>	-	Y	Y	-	Y	Within 2 km, 2019	Within 2 km, 2019	
Higher plants									
Knot grass	<i>Acronicta rumicis</i>	-	Y	Y	Y	Y	1.4 km, E, 2019	Within Kent Onshore Scheme, 2016	
Corncockle	<i>Agrostemma githago</i>	-	-	Y	-	Y	713 m, NE, 2014	713 m, NE, 2014	
Marsh-mallow	<i>Althaea officinalis</i>	-	-	Y	-	Y	1.3 km, S, 2013	1.3 km, S, 2013	

Wild cabbage	<i>Brassica oleracea</i>	-	-	Y	-	Y	1.1 km, NE, 2017	1.1 km, NE, 2017
Divided sedge	<i>Carex divisa</i>	-	Y	Y	-	Y	1.3 km, S, 2017	201 m, S, 2014
Sea carrot	<i>Daucus carota subsp.</i>	-	-	Y	-	Y	1.1 km, NE, 2018	1.1 km, NE, 2018
Lizard orchid	<i>Himantoglossum hircinum</i>	Y	-	Y	-	Y	1.3 km, S, 2020	1.3 km, S, 2020
Sea-buckthorn	<i>Hippophae rhamnoides</i>	-	-	Y	-	Y	1.3 km, S, 2017	1.3 km, S, 2017
Golden-samphire	<i>Inula crithmoides</i>	-	-	Y	-	Y	424 m, N, 2017	424 m, N, 2017
Sharp rush	<i>Juncus acutus</i>	-	-	Y	-	Y	398 m, NE, 2016	398 m, NE, 2016
Dittander	<i>Lepidium latifolium</i>	-	-	Y	-	Y	1.3 km, S, 2017	Within Kent Onshore Scheme, 2016
Toothed medick	<i>Medicago polymorpha</i>	-	-	Y	-	Y	548 m, E, 2017	424 m, N, 2016
Pennyroyal	<i>Mentha pulegium</i>	-	Y	Y	-	Y	1.3 km, S, 2020	1.3 km, S, 2020
Grape-hyacinth	<i>Muscari neglectum</i>	-	Y	Y	-	Y	700 m, S, 2017	700 m, S, 2017
Tubular water-dropwort	<i>Oenanthe fistulosa</i>	-	Y	Y	-	Y	201 m, S, 2014	201 m, S, 2014
Man orchid	<i>Orchis anthropophora</i>	-	Y	Y	-	Y	70 m, N, 2020	70 m, N, 2020

Early meadow-grass	<i>Poa infirma</i>	-	-	Y	-	Y	2 km, E, 2016	70 m, N, 2014
Four-leaved allseed	<i>Polycarpon tetraphyllum</i>	-	-	Y	-	Y	1.1 km, NE, 2017	1.1 km, NE, 2017
Flat-stalked pondweed	<i>Potamogeton friesii</i>	-	-	Y	-	Y	1.8 km, SW, 2014	1.8 km, SW, 2014
Yellow glasswort	<i>Salicornia fragilis</i>	-	-	Y	-	Y	398 m, NE, 2016	398 m, NE, 2016
One-flowered glasswort	<i>Salicornia pusilla</i>	-	-	Y	-	Y	1.3 km, E, 2013	1.3 km, E, 2013
saltwort	<i>Salsola kali</i>	-	-	Y	-	Y	1.1 km, NE, 2020	770 m, NE, 2017
Prickly saltwort	<i>Salsola kali subsp. kali</i>	-	Y	Y	-	Y	1.1 km, NE, 2017	398 m, NE, 2014
Perennial glasswort	<i>Sarcocornia perennis</i>	-	-	Y	-	Y	1.3 km, E, 2015	398 m, NE, 2014
Small cord-grass	<i>Spartina maritima</i>	-	Y	Y	-	Y	770 m, NE, 2015	770 m, NE, 2015
Rootless duckweed	<i>Wolffia arrhiza</i>	-	-	Y	-	Y	1.3 km, SW, 2014	1.3 km, SW, 2014
Yellow archangel	<i>Lamiastrum galeobdolon subsp. argentatum</i>	INNS	-	-	-	Y	Within 1.5 km, N, 2016	Within 1.5 km, N, 2016
Wall cotoneaster	<i>Cotoneaster horizontalis</i>	INNS	-	-	-	Y	Within 1.5 km, NE, 2018	Within 1.5 km, NE, 2018
Japanese rose	<i>Rosa rugosa</i>	INNS	-	-	-	Y	Within 1.5 km, E, 2013	Within 1.5 km, E, 2013

Invertebrates									
Grey dagger	<i>Acronicta psi</i>	-	Y	Y	-	Y	1.8 km, NE, 2015	1.8 km, NE, 2015	
Acupalpus exiguus	<i>Acupalpus exiguus</i>	-	-	Y	-	Y	402 m, E, 2016	402 m, E, 2016	
Adelphocoris seticornis	<i>Adelphocoris seticornis</i>	-	-	Y	-	Y	190 m, E, 2015	190 m, E, 2015	
Adrastus rachifer	<i>Adrastus rachifer</i>	-	-	Y	-	Y	264 m, E, 2016	264 m, E, 2016	
Brown-spot pinion	<i>Agrochola litura</i>	-	Y	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019	
Beaded chestnut	<i>Agrochola lychnidis</i>	-	Y	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019	
Green-brindled crescent	<i>Allophyes oxyacanthae</i>	-	Y	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019	
Ear moth	<i>Amphipoea oculea</i>	-	Y	Y	-	Y	1.4 km, E, 2016	1.4 km, E, 2016	
Mouse moth	<i>Amphipyra tragopoginis</i>	-	Y	Y	-	Y	1.4 km, E, 2019	414 m, E, 2016	
Golden pearl	<i>Anania verbascalis</i>	-	-	Y	-	Y	1.4 km, E, 2017	1.4 km, E, 2017	
Saltmarsh knot-horn	<i>Ancylosis oblitella</i>	-	-	Y	-	Y	1.4 km, E, 2017	1.4 km, E, 2017	
Red-girdled mining bee	<i>Andrena labiata</i>	-	-	Y	-	Y	275 m, E, 2020	275 m, E, 2020	
Plain mini-miner	<i>Andrena minutuloides</i>	-	-	Y	-	Y	160 m, E, 2016	160 m, E, 2016	
Black mining bee	<i>Andrena pilipes</i>	-	-	Y	-	Y	770 m, NE, 2021	713 m, NE, 2014	

Trimmer's mining bee	<i>Andrena trimmerana</i>	-	-	Y	-	Y	770 m, NE, 2015	770 m, NE, 2015
Blackthorn mining bee	<i>Andrena varians</i>	-	-	Y	-	Y	275 m, E, 2020	275 m, E, 2020
Anisoxya fuscata	<i>Anisoxya fuscata</i>	-	-	Y	-	Y	160 m, E, 2016	160 m, E, 2016
Anotylus insecatus	<i>Anotylus insecatus</i>	-	-	Y	-	Y	160 m, E, 2016	160 m, E, 2016
Large nutmeg	<i>Apamea anceps</i>	-	Y	Y	-	Y	1.4 km, E, 2016	1.4 km, E, 2016
Dusky brocade	<i>Apamea remissa</i>	-	Y	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
Rest harrow	<i>Aplasta ononaria</i>	-	Y	Y	-	Y	1.4 km, E, 2016	497 m, NE, 2016
Deep-brown dart	<i>Aporophyla lutulenta</i>	-	Y	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
Garden tiger	<i>Arctia caja</i>	-	Y	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
Bright neb	<i>Argolamprotes micella</i>	-	-	Y	-	Y	1.4 km, E, 2016	1.4 km, E, 2016
Centre-barred sallow	<i>Atethmia centrargo</i>	-	Y	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
Atomaria rhenonum	<i>Atomaria rhenonum</i>	-	-	Y	-	Y	402 m, E, 2016	402 m, E, 2016
Frosted orache	<i>Atriplex laciniata</i>	-	-	Y	-	Y	770 m, NE, 2017	398 m, NE, 2014
Attactagenus plumbeus	<i>Attactagenus plumbeus</i>	-	-	Y	-	Y	264 m, E, 2016	264 m, E, 2016
Saltmarsh horsefly	<i>Atylotus latistriatus</i>	-	-	Y	-	Y	Within Kent	Within Kent

								Onshore Scheme, 2016	Onshore Scheme, 2016
Large garden bumblebee	<i>Bombus ruderatus</i>	-	Y	Y	-	Y		134 m, SE, 2020	134 m, SE, 2020
Bostrychia scorpioides	<i>Bostrychia scorpioides</i>	-	-	Y	-	Y		1.4 km, NE, 2014	1.4 km, NE, 2014
Fen crest	<i>Brachmia inornatella</i>	-	-	Y	-	Y		1.4 km, E, 2019	1.4 km, E, 2019
Minor shoulder-knot	<i>Brachylomia viminalis</i>	-	Y	Y	-	Y		1.4 km, E, 2018	1.4 km, E, 2018
Bulrush veneer	<i>Calamotropha paludella</i>	-	-	Y	-	Y		1.4 km, E, 2017	Within Kent Onshore Scheme, 2015
Toadflax brocade	<i>Calophasia lunula</i>	-	-	Y	-	Y		1.4 km, E, 2019	1.4 km, E, 2019
Mottled rustic	<i>Caradrina morpheus</i>	-	Y	Y	-	Y		1.4 km, E, 2019	Within Kent Onshore Scheme, 2015
Cathormiocerus spinosus	<i>Cathormiocerus spinosus</i>	-	-	Y	-	Y		160 m, E, 2016	160 m, E, 2016
Dark crimson underwing	<i>Catocala sponsa</i>	-	Y	Y	-	Y		1.4 km, E, 2018	1.4 km, E, 2018
Blue carpenter bee	<i>Ceratina cyanea</i>	-	-	Y	-	Y		160 m, E, 2016	160 m, E, 2016
Four-banded weevil-wasp	<i>Cerceris quadricincta</i>	-	Y	Y	-	Y		770 m, NE, 2021	770 m, NE, 2021

Five-banded weevil-wasp	<i>Cerceris quinquefasciata</i>	-	Y	Y	-	Y	770 m, NE, 2015	770 m, NE, 2015
Cercyon bifenestratus	<i>Cercyon bifenestratus</i>	-	-	Y	-	Y	402 m, E, 2016	402 m, E, 2016
Streak	<i>Chesias legatella</i>	-	Y	Y	-	Y	1.4 km, E, 2016	1.4 km, E, 2016
Latticed heath	<i>Chiasmia clathrata</i>	-	Y	Y	-	Y	1.4 km, E, 2019	414 m, E, 2016
Dusky-lemon sallow	<i>Cirrhia gilvago</i>	-	Y	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
sallow	<i>Cirrhia icteritia</i>	-	Y	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
Scarce chocolate-tip	<i>Clostera anachoreta</i>	-	-	Y	-	Y	1.4 km, E, 2016	1.4 km, E, 2016
Rose plume	<i>Cnaemidophorus</i>	-	-	Y	-	Y	1.4 km, E, 2016	1.4 km, E, 2016
Pointed snail	<i>Cochlicella (Cochlicella) acuta</i>	-	-	Y	-	Y	Within Kent Onshore Scheme, 2019	Within Kent Onshore Scheme, 2019
Gold-fringed conch	<i>Cochylis flaviciliana</i>	-	-	Y	-	Y	1.4 km, E, 2016	1.4 km, E, 2016
Square-jawed sharp-tail bee	<i>Coelioxys mandibularis</i>	-	-	Y	-	Y	770 m, NE, 2015	770 m, NE, 2015
Variable damselfly	<i>Coenagrion pulchellum</i>	-	-	Y	-	Y	1.8 km, SW, 2016	1.8 km, SW, 2016
Small heath	<i>Coenonympha pamphilus</i>	-	Y	Y	-	Y	190 m, E, 2017	190 m, E, 2017

Sea aster bee	<i>Colletes halophilus</i>	-	Y	Y	-	Y	270 m, S, 2018	270 m, S, 2018
Margined colletes	<i>Colletes marginatus</i>	-	-	Y	-	Y	160 m, E, 2020	160 m, E, 2020
Cordicollis instabilis	<i>Cordicollis instabilis</i>	-	-	Y	-	Y	801 m, NE, 2017	801 m, NE, 2017
Goat moth	<i>Cossus cossus</i>	-	Y	Y	-	Y	1.4 km, E, 2016	1.4 km, E, 2016
Small blue	<i>Cupido minimus</i>	-	Y	Y	-	Y	539 m, S, 2018	539 m, S, 2018
Dingy mocha	<i>Cyclophora pendularia</i>	-	Y	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
Oak lutestring	<i>Cymatophorina diluta</i>	-	Y	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
Cypha discoidea	<i>Cypha discoidea</i>	-	-	Y	-	Y	402 m, E, 2016	402 m, E, 2016
Dacrila fallax	<i>Dacrila fallax</i>	-	-	Y	-	Y	264 m, E, 2016	264 m, E, 2016
Pantaloon bee	<i>Dasypoda hirtipes</i>	-	-	Y	-	Y	1.1 km, NE, 2020	1.1 km, NE, 2020
Silver barred	<i>Deltote bankiana</i>	-	-	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
Demetrias imperialis	<i>Demetrias imperialis</i>	-	-	Y	-	Y	264 m, E, 2016	264 m, E, 2016
Small phoenix	<i>Ecliptopera silaceata</i>	-	Y	Y	-	Y	1.4 km, E, 2019	270 m, S, 2014
Dusky thorn	<i>Ennomos fuscantaria</i>	-	Y	Y	-	Y	1.4 km, E, 2016	1.4 km, E, 2016
August thorn	<i>Ennomos quercinaria</i>	-	Y	Y	-	Y	Within Kent	Within Kent

							Onshore Scheme, 2016	Onshore Scheme, 2016
Galium carpet	<i>Epirrhoe galiata</i>	-	Y	Y	-	Y	1.4 km, E, 2016	1.4 km, E, 2016
Bordered ermel	<i>Ethmia bipunctella</i>	-	-	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
Dotted ermel	<i>Ethmia dodecea</i>	-	-	Y	-	Y	1.4 km, E, 2017	1.4 km, E, 2017
Five-spot ermel	<i>Ethmia terminella</i>	-	-	Y	-	Y	1.4 km, E, 2017	1.4 km, E, 2017
Pale saltern bell	<i>Eucosma rubescana</i>	-	-	Y	-	Y	270 m, S, 2015	270 m, S, 2015
Autumnal rustic	<i>Eugnorisma glareosa</i>	-	Y	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
Spinach	<i>Eulithis mellinata</i>	-	Y	Y	Y	Y	1.4 km, E, 2019	Within Kent Onshore Scheme, 2015
Garden dart	<i>Euxoa nigricans</i>	-	Y	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
White-line dart	<i>Euxoa tritici</i>	-	Y	Y	Y	Y	1.4 km, E, 2019	Within Kent Onshore Scheme, 2015
Marbled yellow pearl	<i>Evergestis extimalis</i>	-	-	Y	-	Y	1.4 km, E, 2016	1.4 km, E, 2016
Lesne's earwig	<i>Forficula lesnei</i>	-	-	Y	Y	Y	Within Kent	Within Kent

							Onshore Scheme, 2016	Onshore Scheme, 2016
Hoary knot-horn	<i>Gymnancyla canella</i>	-	-	Y	-	Y	1.4 km, E, 2017	1.4 km, E, 2017
Harpalus attenuatus	<i>Harpalus attenuatus</i>	-	-	Y	-	Y	514 m, E, 2016	514 m, E, 2016
Small ranunculus	<i>Hecatera dysodea</i>	-	-	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
Crescent	<i>Helotropha leucostigma</i>	-	Y	Y	Y	Y	1.4 km, E, 2019	Within Kent Onshore Scheme, 2015
Small emerald	<i>Hemistola chrysoprasaria</i>	-	Y	Y	-	Y	1.4 km, E, 2019	700 m, SE, 2015
Ghost moth	<i>Hepialus humuli</i>	-	Y	Y	Y	Y	1.4 km, E, 2019	Within Kent Onshore Scheme, 2015
Rustic	<i>Hoplodrina blanda</i>	-	Y	Y	Y	Y	Within Kent Onshore Scheme, 2015	Within Kent Onshore Scheme, 2015
Rosy rustic	<i>Hydraecia micacea</i>	-	Y	Y	Y	Y	Within Kent Onshore Scheme, 2015	Within Kent Onshore Scheme, 2015

Bright wave	<i>Idaeia ochrata</i>	-	-	Y	-	Y	398 m, NE, 2014	1.4 km, E, 2019
Twin-spot honey	<i>Lamoria zelleri</i>	-	-	Y	Y	Y	1.4 km, E, 2017	Within Kent Onshore Scheme, 2015
Wall	<i>Lasiommata megera</i>	-	Y	Y	-	Y	270 m, S, 2014	270 m, S, 2014
Shoulder-striped wainscot	<i>Leucania comma</i>	-	Y	Y	-	Y	1.4 km, E, 2019	700 m, SE, 2015
Rosy minor	<i>Litoligia literosa</i>	-	Y	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
Flax flea beetle	<i>Longitarsus parvulus</i>	-	-	Y	-	Y	615 m, E, 2016	615 m, E, 2016
Brindled beauty	<i>Lycia hirtaria</i>	-	Y	Y	-	Y	1.4 km, E, 2016	1.4 km, E, 2016
V-moth	<i>Macaria wauaria</i>	-	Y	Y	-	Y	1.4 km, E, 2017	1.4 km, E, 2017
Lackey	<i>Malacosoma neustria</i>	-	Y	Y	Y	Y	1.4 km, E, 2019	Within Kent Onshore Scheme, 2015
Coastal pearl	<i>Mecyna asinalis</i>	-	-	Y	-	Y	1.4 km, E, 2016	1.4 km, E, 2016
Dot moth	<i>Melanchnra persicariae</i>	-	Y	Y	-	Y	1.4 km, E, 2019	400 m, SE, 2015
Pretty chalk carpet	<i>Melanthia procellata</i>	-	Y	Y	-	Y	1.4 km, E, 2019	414 m, E, 2016

Meligethes fulvipes	<i>Meligethes fulvipes</i>	-	-	Y	-	Y	159 m, E, 2016	159 m, E, 2016
Microplontus campestris	<i>Microplontus campestris</i>	-	-	Y	Y	Y	Within Kent Onshore Scheme, 2016	Within Kent Onshore Scheme, 2016
Rust-blotch cosmet	<i>Mompha lacteella</i>	-	-	Y	-	Y	1.8 km, NE, 2016	1.8 km, NE, 2016
Wainscot neb	<i>Monochroa palustrellus</i>	-	-	Y	Y	Y	1.4 km, E, 2019	Within Kent Onshore Scheme, 2015
Monosapyga clavicornis	<i>Monosapyga clavicornis</i>	-	-	Y	-	Y	256 m, E, 2016	256 m, E, 2016
Fen snout	<i>Nemotelus pantherinus</i>	-	-	Y	-	Y	514 m, E, 2016	514 m, E, 2016
Spindle knot-horn	<i>Nephopterix angustella</i>	-	-	Y	-	Y	1.4 km, E, 2017	1.4 km, E, 2017
Painted nomad bee	<i>Nomada fucata</i>	-	-	Y	-	Y	770 m, NE, 2018	770 m, NE, 2018
Catsear nomad bee	<i>Nomada integra</i>	-	-	Y	-	Y	160 m, E, 2016	160 m, E, 2016
Smaller noterus	<i>Noterus crassicornis</i>	-	-	Y	-	Y	168 m, E, 2016	168 m, E, 2016
Agate knot-horn	<i>Nyctegretis lineana</i>	-	-	Y	-	Y	1.4 km, E, 2017	1.4 km, E, 2017
Odacantha melanura	<i>Odacantha melanura</i>	-	-	Y	-	Y	615 m, E, 2016	615 m, E, 2016

Black-headed mason wasp	<i>Odynerus melanocephalus</i>	-	Y	Y	-	Y	275 m, E, 2020	275 m, E, 2020
Rosy-striped knot-horn	<i>Oncocera semirubella</i>	-	-	Y	-	Y	1.4 km, E, 2017	1.4 km, E, 2017
Orthochaetes setiger	<i>Orthochaetes setiger</i>	-	-	Y	-	Y	514 m, E, 2016	Within Kent Onshore Scheme, 2016
Powdered quaker	<i>Orthosia gracilis</i>	-	Y	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
Painted neb	<i>Oxypteryx wilkella</i>	-	-	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
Salt-marsh grass-veneer	<i>Pediasia aridella</i>	-	-	Y	-	Y	1.4 km, E, 2017	1.4 km, E, 2017
Waste grass-veneer	<i>Pediasia contaminella</i>	-	-	Y	-	Y	1.4 km, E, 2017	1.4 km, E, 2017
Dark spinach	<i>Pelurga comitata</i>	-	Y	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
Gorse knot-horn	<i>Pempelia genistella</i>	-	-	Y	-	Y	1.4 km, E, 2017	1.4 km, E, 2017
Hollyhock seed moth	<i>Pexicopia malvella</i>	-	-	Y	-	Y	1.4 km, E, 2016	1.4 km, E, 2016
Concolorous	<i>Photedes extrema</i>	-	Y	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
Kent bent-wing	<i>Phyllocnistis xenia</i>	-	-	Y	Y	Y	1.4 km, E, 2019	Within Kent Onshore Scheme, 2014

Mallow groundling	<i>Platyedra subcinerea</i>	-	-	Y	-	Y	1.4 km, E, 2019	1.4 km, E, 2019
Mud wasp	<i>Podalonia affinis</i>	-	-	Y	-	Y	2 km, S, 2021	2 km, S, 2021
Indolent ant	<i>Ponera coarctata</i>	-	-	Y	Y	Y	160 m, E, 2016	Within Kent Onshore Scheme, 2016
Kent tubic	<i>Promalactis procerella</i>	-	-	Y	-	Y	1.4 km, E, 2016	1.4 km, E, 2016
Protapion difforme	<i>Protapion difforme</i>	-	-	Y	-	Y	402 m, E, 2016	402 m, E, 2016
Large wainscot	<i>Rhizedra lutosa</i>	-	Y	Y	-	Y	1.4 km, E, 2016	1.4 km, E, 2016

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National Grid plc
National Grid House,
Warwick Technology Park,
Gallows Hill, Warwick.
CV34 6DA United Kingdom

Registered in England and Wales
No. 4031152
nationalgrid.com