

The Great Grid Upgrade

Sea Link

Sea Link

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Contents

| | | |
|-----------|---|-----------|
| 1. | Extended Phase 1 Habitat Survey Report | 4 |
| 1.1. | Introduction | 4 |
| 1.2. | Legislation, Policy and Guidance | 5 |
| 1.3. | Methodology | 6 |
| 1.4. | Ecological Baseline | 11 |
| | References | 46 |
| | Annex 2.A.1 Species Data Records Summary | 47 |

Table of Tables

| | |
|---|----|
| Table 1.1 Desk study data sources | 7 |
| Table 1.2 Statutory designated sites | 13 |
| Table 1.3 Non-Statutory designated sites | 15 |
| Table 1.4 Hedgerow assessment results | 23 |
| Table 1.5 Habitat summary within order limits by land parcel | 26 |
| Table 1.6 Target notes for habitats and species | 33 |
| Table 1.7 Indications of badger presence | 41 |
| Table 1.8 Invasive non-native species recorded in the desk study | 44 |
| Annex Table A.1 Summary of records of protected and notable species | 48 |

Tables of Plates

| | |
|---|----|
| Plate 1.1 'A1.1.1' - Broadleaved woodland – semi-natural | 17 |
| Plate 1.2 'A1.1.2' - Broadleaved woodland – plantation (TR308628) | 18 |
| Plate 1.3 'B2.2' - Neutral grassland - semi-improved (TR319629) | 19 |
| Plate 1.4 'J1.3' - Cultivated/disturbed land - ephemeral/short perennial (TR307629) | 22 |
| Plate 1.5 Low potential bat roost tree (382B-1) | 33 |
| Plate 1.6 Low potential bat roost tree (399-1) | 34 |
| Plate 1.7 Water course vegetation (244-1) | 34 |
| Plate 1.8 Low potential bat roost (244-2) | 34 |
| Plate 1.9 Low potential bat roost (244-3) | 35 |
| Plate 1.10 Owl roosting box (244-4) | 35 |
| Plate 1.11 Owl roosting box (245-4) | 36 |
| Plate 1.12 Tidal Area (HP1) | 36 |
| Plate 1.13 Tidal Area (HP2) | 36 |
| Plate 1.14 Scrub (HP3) | 37 |
| Plate 1.15 Japanese Rose (HP4) | 37 |
| Plate 1.16 Wall Cotoneaster (HP5) | 37 |
| Plate 1.17 Wall <i>Rubus laciniatus</i> (HP6) | 38 |
| Plate 1.18 Bank with reptile potential (HP8) | 38 |
| Plate 1.19 Badger latrine | 41 |
| Plate 1.20 Badger latrine | 41 |

| | |
|-----------------------------|----|
| Plate 1.21 Badger footprint | 41 |
| Plate 1.22 Badger sett | 41 |
| Plate 1.23 Badger hair | 41 |
| Plate 1.24 Badger sett | 41 |
| Plate 1.25 Badger hair | 41 |
| Plate 1.26 Badger sett | 41 |
| Plate 1.27 Badger sett | 42 |
| Plate 1.28 Badger sett | 42 |
| Plate 1.29 Badger sett | 42 |

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1. Extended Phase 1 Habitat Survey Report

1.1. Introduction

Background

- 1.1.1 The Sea Link Project (hereafter referred to as the 'Proposed Project') is a proposal by National Grid Electricity Transmission plc (hereafter referred to as National Grid) to reinforce the transmission network in the Southeast and East Anglia. The Proposed Project is required to accommodate additional power flows generated from renewable and low carbon generation, as well as accommodating additional new interconnection with mainland Europe. This would be achieved by reinforcing the network with a High Voltage Direct Current (HVDC) Link between the proposed Friston substation in the Sizewell area of Suffolk and the existing Richborough to Canterbury 400 kV overhead line close to Richborough in Kent.
- 1.1.1 The purpose of this Extended Phase 1 Habitat Survey Report is to:
- Detail the results of the extended Phase 1 Habitat Survey undertaking for the Kent Onshore Scheme Order Limits from 2022 to 2025. The Kent Onshore Scheme is located on the east coast of Kent, as shown by **Application Document 6.4.3.2.A.1 Kent Phase 1 Survey Results**;
 - Assess the ecological constraints in connection with the Kent Onshore Scheme Order Limits with reference to current good practice (CIEEM, 2017);
 - Identify relevant wildlife legislation and planning policy as summarised in **Application Document 6.2.2.2 Part 3 Kent Chapter Ecology and Biodiversity** and is consistent with the requirements of *British Standard 42020:2013 Biodiversity. Code of Practice for Planning and Development*;
 - establish baseline conditions and determine the presence of Important Ecological Features (IEF)¹ (or those that could be present); and
 - establish any requirements for more detailed ecological surveys.
- 1.1.2 The baseline findings of this report provide information on any potential ecological constraints associated with habitats, for incorporation into **Application Document 6.2.2.2 Part 3 Kent Chapter 2 Ecology and Biodiversity** for the Kent Onshore Scheme.
- 1.1.3 Details of avoidance, mitigation, compensation and enhancement measures relating to habitats are not included in this report and are instead reported within **Application Document 6.2.2.2 Part 3 Kent Chapter 2 Ecology and Biodiversity**.
- 1.1.4 This appendix should be read in conjunction with the following figures:
- **Application Document 6.4.3.2.A Phase 1 Habitat Survey Report.**

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

Scope

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

1.2. Legislation, Policy and Guidance

Legislation

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

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

The Hedgerow Regulations 1997 (HM Government, 1997)

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

Protection of Badgers Act 1992 (HM Government, 1992)

- 1.1.5 This Act protects Badgers (*Meles meles*) and their setts. In England and Wales, this makes it an offence to:
- wilfully kill, injure or take a badger (or attempt to do so);

- cruelly ill-treat a badger;
- dig for a badger, intentionally or recklessly damage or destroy a badger sett, or obstruct access to it; cause a dog to enter a badger sett; and
- disturb a badger while it is occupying a sett.

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

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

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

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

Regional/Local Planning and Guidance

Kent Biodiversity Strategy

- 1.1.8 The Kent Nature Partnership Biodiversity Strategy 2020 to 2045 (Kent Nature Partnership, 2020) does not give any specific planning guidance, however it does define priority habitats (15) and priority species (14) for the county.

1.3. Methodology

Desk Study

Background records search

- 1.2.1 The Extended Phase 1 Habitat Survey includes a desk study to obtain background records relevant to the Kent Onshore Scheme Order Limits. 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 1.1.
- 1.2.2 The desk-study was undertaken on 6 June 2022 and updated on 4 October 2024 to obtain records of designated sites, notable habitats (HM Government, 1997; HM Government, 2006), and protected and notable species (Joint Nature Conservation Committee, 2023), (HM Government, 1997), (Kent Nature Partnership, 2020)), within the proposed Kent Onshore Scheme Order Limits and appropriate Zones of Influence (Zoi) (the area covered by the desk study is hereafter referred to as the 'Study Area').
- 1.1.9 High-definition aerial drone imagery was used to perform initial assessments of habitats. Flights for the drone imagery were undertaken in November 2022 and comprehensively ground-truthed during 2023, 2024 and 2025.

Table 1.1 Desk study data sources

| Data Source | Date | Purpose |
|---|----------------------------|---|
| Multi-Agency Geographic Information for the Countryside (MAGIC) website (DEFRA, 2024) | July 2022 | Designated sites of nature conservation importance (statutory sites only) within 5 km of the proposed Kent Onshore Scheme Order Limits. This was extended to 10 km for internationally designated sites: Special Protection Areas (SPAs), Wetlands of International Importance (Ramsar sites) and Special Areas of Conservation (SACs); and, Notable habitats within 1 km of the Site, these being areas of ancient woodland and 'Habitats of Principal Importance for the Conservation of Biodiversity' included in the England Biodiversity List ² . |
| Kent and Medway Biological Records Centre | July 2022 and October 2024 | Records of non-statutory designated sites (Local Wildlife Sites) within 2 km of the proposed Kent Onshore Scheme Order Limits; Records of legally protected and notable species (fauna and |

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

| Data Source | Date | Purpose |
|--|-----------|---|
| | | flora) within 2 km (5 km for bats) of the proposed Kent Onshore Scheme Order Limits, including Species of Principal Importance for the Conservation of Biodiversity listed under Section 41 of the Natural Environment & Rural Communities Act 2006 (HM Government, 2006) in the England Biodiversity List. |
| Where's the Path website ([REDACTED]) | July 2022 | To identify the presence of water bodies within 500 m of the proposed Kent Onshore Scheme Order Limits, in order to help establish if the land within and immediately surrounding the Site could be used by great crested newts (<i>Triturus cristatus</i>). |
| Ordnance Survey 1:2500 Pathfinder maps and aerial photography | July 2022 | Information on habitats and habitat connections (based on aerial photography) relevant to interpretation of planning policy and assessment of potential protected and notable species constraints. |

Field Survey

Extended Phase 1 Habitat Survey

Walkover surveys of accessible land were undertaken throughout 2022 and 2023 and updated during 2024 and 2025 to reflect changes to Order Limits as a result of design development.

- 1.2.3 The Extended Phase 1 Habitat Survey was undertaken in accordance with the standard Joint Nature Conservation Committee survey method (JNCC, 2010). 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.
- 1.2.4 The Extended Phase 1 Habitat Surveys, important hedgerow surveys and habitat condition assessments were undertaken by suitably qualified ecologists who recorded and mapped all habitat types present within Kent Onshore Scheme Order Limits, along with any associated relevant ecological receptors observed. The survey area encompassed all safely accessible parts of the Kent Onshore Scheme Order Limits and adjacent habitats.
- 1.2.5 Important Hedgerow Surveys were undertaken in-line with the Hedgerow Survey Handbook (DEFRA, 2007) to assess hedgerows against the Hedgerow Regulations (HM Government, 1997). Hedgerows for assessment were identified by the Extended Phase 1 Habitat Survey habitat type mappings. Identified hedgerows were then assessed by two suitably qualified ecologists who visited, assessed and recorded details for all identified hedgerows.
- 1.2.6 Where relevant ecological receptors were present, target notes were recorded and the position of these shown on the Phase 1 Habitat map (**Application Document 6.4.3.2.A.3 Kent Target Notes**). Typical and notable plant species were recorded for different habitat types and reflect the conditions at the time of survey. The survey was not intended to be a detailed inventory of the plant species present in the Kent Onshore Scheme Order Limits as this is not required for the purposes of Extended Phase 1 Habitat Survey. Naming conventions regarding plant species follow Stace (Stace, 2021).

Badger surveys

- 1.2.7 Suitably qualified ecologists performed a walk over survey of all habitats within each land parcel where it was safe to do so. Surveys were undertaken in line with the standard approach detailed in the Mammal Society Publication Surveying Badgers (Harris, 1989). All signs of badgers or badger activity (which includes recent digging, snuffle holes, latrines, hair, footprints and bedding) were recorded and photographed where possible. Setts were categorized by type (main, annex, subsidiary or outlier) and and were then assessed as being either “in use” or “disused”, taking account of The Protection of Badgers Act (HM Government, 1992) which defines a sett as “any structure or place which displays signs indicating current use by a badger).

Important hedgerow surveys

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

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

- 1.2.9 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 and are shown in **Application Document 6.4.3.2.A.3 Kent Target Notes**.
- 1.2.10 Detailed surveys for a number of species/taxons were undertaken and are reported as follows:
- **Application Document 6.3.2.2.B Appendix 3.2.B Wintering Bird Survey Report 2022 - 2023;**
 - **Application Document 6.3.2.2.C Appendix 3.2.C Wintering Bird Survey Report 2023 - 2024;**
 - **Application Document 6.3.2.2.D Appendix 3.2.D Breeding Bird Survey Report 2022 - 2023;**
 - **Application Document 6.3.2.2.E Appendix 3.2.E Breeding Bird Survey Report 2023 - 2024;**
 - **Application Document 6.3.2.2.F Appendix 3.2.F Vantage Point Survey Report;**
 - **Application Document 6.3.2.2.G Appendix 3.2.G Overhead Lines Mortality Monitoring Survey Report;**
 - **Application Document 6.3.2.2.H Appendix 3.2.H Riparian Mammal Survey Report;**
 - **Application Document 6.3.2.2.I Appendix 3.2.I Reptile Survey Report;**
 - **Application Document 6.3.2.2.J Appendix 3.2.J Terrestrial Invertebrate Survey Report;**
 - **Application Document 6.3.2.2.K Appendix 3.2.K Bat Tree Survey Report;**
 - **Application Document 6.3.2.2.L Appendix 3.2.L Nighttime Bat Walkover and Static Detector Report Bird Survey Report;**
 - **Application Document 6.3.2.2.M Appendix 3.2.M Hazel Dormouse Survey Report; and**
 - **Application Document 6.3.2.2.N Appendix 3.2.N Aquatic Ecology Survey Report.**

Invasive non-native species

- 1.2.11 Where any invasive non-native species were observed during the extended phase 1 habitat survey, they were recorded as target notes and are shown in **Application**

Document 6.4.3.2.A.3 Kent Target Notes, but no detailed survey was carried out for any particular species.

Limitations and Assumptions

Desk study

- 1.2.12 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 Order Limits. Since desk study records represent a snapshot in time, the data request of October 2024 is considered sufficiently recent to inform this report.

Field survey

- 1.2.13 Much of the Extended Phase 1 Habitat Survey was undertaken through the desk-based mapping of high-definition aerial drone photography.
- 1.2.14 As a result of this, ground truthing of the aerial photography was undertaken during 2023, and updated in 2024 and 2025. 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 **Application Document 6.4.3.2.A.1 Kent Phase 1 Survey Results**:
- 240 (0.70 ha Broadleaved woodland, within Weatherlees Hill WwTW);
 - 245 (0.16 ha hardstanding);
 - 380 (<0.01 ha standing water and amenity grassland); and,
 - 381 (0.07 ha standing water).
- 1.2.15 It should be noted that ecosystems are dynamic and constantly changing, and therefore species may move, or new species may be recorded in subsequent years. For this reason, and in accordance with current guidance, the field survey data detailed in this report are valid for a period of two years from the date of survey (The Chartered Institute of Ecology and Environmental Management, 2019). After this date, updated surveys may be required, and advice should be sought from an appropriately qualified ecologist to determine the survey scope and methods.

1.4. Ecological Baseline

Introduction

- 1.3.1 The following sections detail the results of the desk and field-based studies undertaken to inform this Extended Phase 1 Habitat Survey.
- 1.3.2 With regards to background data ‘recent’ records are considered to be those no older than ten years from the date of the most recent desk study (October 2024).

Statutory Sites

- 1.3.3 Twelve statutory sites designated for nature conservation have been identified within the stated desk study areas (10 km for international from Kent Onshore Scheme Order Limits and 5 km for national sites). These are summarised in Table 1.2 and shown in **Application Document 6.4.3.2.A.5 Kent Designated Sites**.

Table 1.2 Statutory designated sites

| Designated Site | Reason for Designation | Approximate Distance from Kent Onshore Scheme Order Limits ³ |
|--|---|---|
| Thanet Coast & Sandwich Bay Ramsar (2,169 ha) | Designated for supporting 15 British Red Data Book (RDB) (JNCC, 2020) wetland invertebrates and an internationally important overwintering population of ruddy turnstone (<i>Arenaria interpres</i>). | Within the Kent Onshore Scheme Order Limits |
| 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 Order Limits |
| 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 Order Limits |
| Thanet Coast SAC (2,816 ha) | Designated for reefs and submerged or partially submerged sea caves. | Directly adjacent to the east of the Kent Onshore Scheme Order Limits |
| Stodmarsh SAC (566 ha) | Designated for Desmoulin's whorl snail (<i>Vertigo moulinsiana</i>) | Approximately 6.5 km to the west, and upstream, of the Kent Onshore Scheme Order Limits |
| Margate and Long Sands SAC (64,877 ha) | Designated for sandbanks which are slightly covered by sea water all the time. | Approximately 7.6 km to the north of the Kent Onshore Scheme Order Limits |
| 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>). | Approximately 5.8 km to the north of the Kent Onshore Scheme Order Limits |
| 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 | Approximately 6.9 km west of the Kent Onshore Scheme Order Limits |

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

| Designated Site | Reason for Designation | Approximate Distance from Kent Onshore Scheme Order Limits ³ |
|---|--|---|
| | and non-breeding gadwall (<i>Mareca strepera</i>) as well as breeding and wintering bird assemblages. | |
| 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. | Approximately 6.9 km west of the Kent Onshore Scheme Order Limits |
| 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 Order Limits |
| 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 Order Limits |
| Princes Beachlands Local Nature Reserve (LNR) (6 ha) | Designated for a mosaic of habitats that have importance for migrating birds. | Approximately 1.8 km southeast of the Kent Onshore Scheme Order Limits |

Non-Statutory Sites

- 1.3.4 Three non-statutory sites designated for nature conservation have been identified within 2 km of the Kent Onshore Scheme Order Limits. Table 1.3 and shown in **Application Document 6.4.3.2.A.5 Kent Designated Sites**.

Table 1.3 Non-Statutory designated sites

| Designated site | Reason for designation | Distance from Kent Onshore Scheme Order Limits ⁴ |
|---|--|---|
| 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 Order Limits |
| 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 Order Limits |
| 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 Order Limits |

Habitats

Desk study

Ancient woodland

- 1.3.5 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 (HM Government, 2006) within 500 m of the Kent Onshore Scheme Order Limits.

Notable habitats and protected and notable flora

- 1.3.6 The data search conducted in 2022 (and updated in 2024) indicated that the following Habitats of Principal Importance are located either within or adjacent to (i.e., up to 500

⁴ Where designated sites are situated outside of the Kent Onshore Scheme Order Limits, the distance and direction is given at the closest point of the designated site from the Order Limits.

m from) the Kent Onshore Scheme Order Limits (**Application Document 6.4.3.2.A.1 Kent Phase 1 Survey Results**) as follows:

- Sand dunes, coastal saltmarsh, and mudflats – present along the Pegwell Bay foreshore;
- Coastal grazing marshes – distributed in the land to the south of the River Stour and along the Pegwell Bay shore;
- Reedbeds – situated along Pegwell Bay but also along the River Stour, with smaller parcels alongside multiple wet ditches present within the Kent Onshore Scheme Order Limits;
- 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 Order Limits. Additionally, there are five blocks of priority woodland habitat within the Kent Onshore Scheme Order Limits;
- Hedgerows and arable field margins – these are present throughout the Kent Onshore Scheme Order Limits;
- 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 Order Limits and scrapes along the River Stour; and,
- Running water – the River Stour is present within the western end of the Kent Onshore Scheme Order Limits.

Field survey

- 1.3.7 A summary of the habitats within the Kent Onshore Scheme Order Limits are provided within Table 1.5 below and shown on **Application Document 6.4.3.2.A.1 Kent Phase 1 Survey Results** with specific features highlighted by Target Notes (TNs). TN descriptions are provided in Table 1.6. The extent of individual land parcels is shown in **Application Document 6.4.3.2.A.2 Kent Phase 1 Land Parcels**.
- 1.3.8 The land south River Stour and within the Kent Onshore Scheme Order Limits is largely grassland (semi-improved etc.) which is described in the following sections. These habitats are also classified in Phase 1 terms as coastal floodplain grazing marsh.

A1.1.1 - Broadleaved woodland - semi-natural

- 1.3.9 The main area of woodland was located in land parcel 374 within the Kent Onshore Scheme Order Limits to the east of A256 Richborough Way and northwest of St Augustine's golf course. Between this area of woodland and the A256 are areas of broadleaved plantation woodland and dense scrub, which were planted in approximately 2016 when the A256 was realigned.
- 1.3.10 This woodland was dominated by English oak (*Quercus robur*) with smaller 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.

- 1.3.11 A1.1.1 - Broadleaved woodland – semi natural was also found in small areas in land parcels 240, 255, 264, 328, 346, 359, 373, 374, 375, 563, 570, 598, 599, 611 and 613. In particular, Weatherlees Hill (part of Sandwich Bay to Hacklinge Marshes SSSI) lies approximately 20 m south of the proposed Minster Converter Station.



Plate 1.1 ‘A1.1.1’ - Broadleaved woodland – semi-natural

A1.1.2 – Broadleaved woodland – plantation

- 1.3.12 Three areas of broadleaved plantation woodland were present within the Kent Onshore Scheme Order Limits; in parcel 374 immediately east of the A256 Richborough Way (planted when the road was realigned), 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 328 and 360 contained 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 was composed of immature willow species (*Salix* sp.), hawthorn (*Crataegus monogyna*).



Plate 1.2 ‘A1.1.2’ - Broadleaved woodland – plantation (TR308628)

A2.1 - Scrub - dense/continuous

- 1.3.13 Dense scrub was recorded alongside tracks, within land parcel 328 and immediately east of the A256 Richborough Way. 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.
- 1.3.14 Other land parcels identified as containing small amounts (< 0.1ha) of dense/continuous scrub were 244, 328, 360, 563, 570 and 618.

A2.2 - Scrub – scattered

- 1.3.15 Scattered scrub was present within the Kent Onshore Scheme Order Limits, some dominated by blackthorn, while others were dominated by bramble. These areas of scrub were typically located along the banks of the ditches in land parcels 240 and 232. This habitat provided ‘islands’ of habitat for commuting bats, reptiles and hedgehogs (*Erinaceus europaeus*). Other land parcels identified as containing small amounts of scrub were 232, 244, 285, 336, 346, 563, 616 and the old hoverport.

A.3.1 – Broadleaved parkland/scattered trees

- 1.3.16 Broadleaved scattered trees were present across and adjacent to the Kent Onshore Scheme Order Limits within hedgerows, most noticeably in land parcel 374.

B2.2 - Neutral grassland - semi-improved

- 1.3.17 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 mainly present in land parcel 232 north of the River Stour around the wildlife scrapes. These areas are sheep grazed at times during the year.

- 1.3.18 Small amounts of this habitat was recorded in land parcels 238, 244, 277, 336, 346, 360, 399, 563, 598, 599 and 618.



Plate 1.3 'B2.2' - Neutral grassland - semi-improved (TR319629)

B4 – Improved grassland

- 1.3.19 Improved grassland was recorded within a number of land parcels. Significant areas of this habitats were found in land parcels 227, 229 and 273 located south of the River Stour. Although agriculturally improved they do inundate periodically in winter so could be broadly defined as 'grazing marsh' which is not a Phase 1 habitat type but is a NERC Act 2006 priority habitat.
- 1.3.20 Small areas of this habitat were also recorded in land parcels 232.

B5 – Marshy Grassland

- 1.3.21 Some marshy grassland was recorded within land parcel 227, located south of the River Stour. Although improved they do inundate periodically in winter so could be broadly defined as 'grazing marsh' which is not a Phase 1 habitat type but is a NERC Act 2006 priority habitat.

B6 – Poor semi-improved grassland

- 1.3.22 Poor semi-improved grassland was recorded within a number of land parcels. Significant areas of this habitats were found in land parcels 227, 229 and 231 south of the River Stour. Although improved they do inundate periodically in winter so could be broadly defined as 'grazing marsh' which is not a Phase 1 habitat type but is a NERC Act 2006 priority habitat.
- 1.3.23 Small areas of this habitat were also recorded in land parcels 232, 244, 255, 273, 328, and 579.

C3.1 – Other tall herb and fern – ruderal

- 1.3.24 Ruderal vegetation was common along the margins of the roads in land parcel 238. 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. Other land parcels recorded as containing C3.1 – Other tall herb and fern – ruderal habitat were 232, 238, 244, 247, 255, 316, 346, 373, 375, 563, 566 and 567.

C3.2 – Other tall herb and fern – non ruderal

- 1.3.25 A small area of this habitat was recorded in land parcel 359 containing red fescue, hard rush (*Juncus inflexus*), mugwort (*Artemisia vulgaris*), pendulous sedge (*Carex pendula*), greater plantain (*plantago major*) and bramble.

F1 – Swamp

- 1.3.26 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 232, and 244, particularly those present within the western sections of the Kent Onshore Scheme Order Limits (land parcel 232). Where reedbed habitat was present there was suitable food source for water vole (*Arvicola amphibius*) and nesting habitat for bird species such as reed warbler (*Acrocephalus scirpaceus*).

F2.1 – Marginal inundation – marginal vegetation

- 1.3.27 Marginal vegetation (dominated by reed grass (*Phragmites australis*)) was present in land parcels 232 (north of the River Stour) and 229, 237 and 579 (south of the River Stour).

G1 - Standing Water

- 1.3.28 Standing water was present within the ditches that cross the Kent Onshore Scheme Order Limits. 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. Land parcels recorded as containing standing water were 232, 373, 375, 379, 380 and 381.

G2 – Running water

- 1.3.29 Wet ditches were present throughout the Kent Onshore Scheme Order Limits delineating the field edges through land parcels 244, 237 and 232. These ditches are heavily colonised with aquatic macrophytes including giant salvinia and blanket weed (*Spirogyra adnate*). The ditches have steep-sided low banks bordered with swamp.
- 1.3.30 The River Stour accounted for the majority of the area of running water, with a total of 34 land parcels containing running water of some description.

H1.1 - Intertidal - mud/sand

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

H2.6 – Saltmarsh dense/continuous

- 1.3.32 Saltmarsh was present within the land parcels 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*).

J1.1 – Cultivated/disturbed land – arable

- 1.3.33 The vast majority of the Kent Onshore Scheme Order Limits 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*).
- 1.3.34 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.
- 1.3.35 Overall, 25 land parcels were recorded as containing arable land.

J1.2 - Cultivated/disturbed land - amenity grassland

- 1.3.36 Amenity grassland was present in land parcels 359 and 374 associated with the St Augustine's golf course.
- 1.3.37 Other parcels recorded as containing amenity grassland were land parcels 250, 273, 355, 373, 375 and 380.

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

- 1.3.38 An area of ephemeral/short perennial was 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*).
- 1.3.39 A second area of approximately 0.13 ha was present in land parcel 244.



Plate 1.4 ‘J1.3 ‘ - Cultivated/disturbed land - ephemeral/short perennial (TR307629)

J1.4 – Introduced shrub

- 1.3.40 An area of introduced shrub was present in the hoverport area, species included Spanish broom (*Spartium junceum*), butterfly bush (*Buddleia davidii*), mock orange (*Philadelphus coronarius*), *Prunus* spp.

J4 - Bare Ground

- 1.3.41 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*). Land parcels where this habitat was recorded were 238, 244, 255, 285, 346, 359, 244 and 237.

Z99 - Hardstanding

- 1.3.42 The hardstanding within the Kent Onshore Scheme Order Limits was largely made up of roads and pavements that run through 39 land parcels.
- 1.3.43 The old hoverport includes an extensive area of hardstanding made up of old concrete with ephemeral encroachment; species include pendulous sedge, St John's wort (*Hypericum perforatum*), sea buckthorn (*Hippophae rhamnoides*), pampas grass (*Cortaderia selloana*), hard rush, soft rush (*Juncus effusus*), bramble, and stonecrop (*Sedum* spp.).

Hedgerow Regulations Assessment

- 1.3.44 The hedgerows within the Kent Onshore Scheme Order Limits 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 (HM Government, 1997), the status of these hedgerows as well as their significance to the landscape were determined. Table 1.4 contains the results of these condition assessment. No important hedgerows were identified in Kent.

Table 1.4 Hedgerow assessment results

| Parcel | Hedgerow ID no. | Hedgerow Type (Phase 1 Habitat Description) | Description |
|---------|-----------------|---|--|
| 232 | Hedge 1 | J2.2.2 - Defunct hedge - species-poor | Access route will pass through an existing gap in hedge (which may need to be widened). Hedgerow is > 30 years old with three woody species and does not have a significant number of other listed features and is therefore not an important hedgerow. |
| 238/244 | Hedge 2 | J2.3.2 - Hedge with trees - species-poor | Access route will pass through an existing gap in hedge (which may need to be widened). |
| 232 | Hedge 4 | J2.3.2 - Hedge with trees - species-poor | Proposed overhead cable route will pass above hedgerow (no impact). Hedge has been removed (cut back to stump level). (Hedge previously on national rail side of fencing). |
| 232 | Hedge 4a | J2.3.2 - Hedge with trees - species-poor | Proposed overhead cable route will pass above hedgerow (no impact). Hedgerow is > 30 years old with three woody species and does not have a significant number of other listed features and is therefore not an important hedgerow. |
| 232 | Hedge 4b | J2.3.2 - Hedge with trees - species-poor | Proposed overhead cable route will pass above hedgerow (no impact). Hedgerow is > 30 years old with three woody species and does not have a significant number of other listed features and is therefore not an important hedgerow. |
| 232 | Hedge 5 | J2.2.2 - Defunct hedge - species-poor | Access route will pass through an existing gap in hedge (which may need to be widened). Impacted by a temporary attenuation outfall pipe which will pass through the hedgerow. |

| Parcel | Hedgerow ID no. | Hedgerow Type (Phase 1 Habitat Description) | Description |
|--------|-----------------|---|--|
| | | | Hedgerow is > 30 years old with two woody species and does not have a significant number of other listed features and is therefore not an important hedgerow. |
| 244 | Hedge 6 | J2.1.2 - Intact hedge - species-poor | <p>Will be removed for converter station construction.</p> <p>Hedgerow is > 30 years old with two woody species and does not have a significant number of other listed features and is therefore not an important hedgerow.</p> <p>Hedgerow is > 30 years old with an average of three woody species and does not have a significant number of other listed features and is therefore not an important hedgerow.</p> |
| 244 | Hedge 6a | J2.1.2 - Intact hedge - species-poor | <p>Will be removed for converter station construction.</p> <p>Hedgerow is > 30 years old with an average 2.5 woody species and does not have a significant number of other listed features and is therefore not an important hedgerow.</p> |
| 244 | Hedge 8 | J2.2.2 - Defunct hedge - species-poor | <p>Impacted by a permanent attenuation outfall pipe and a permanent access route.</p> <p>Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not protected.</p> <p>Hedgerow is > 30 years old with five woody species but does not have a significant number of other listed features and is therefore not an important hedgerow.</p> |
| 255 | Hedge 9 | J2.2.2 - Defunct hedge - species-poor | <p>Not impacted by construction works.</p> <p>Hedgerow is > 30 years old but does not have a significant number of other listed features and is therefore not protected.</p> <p>Hedgerow is > 30 years old with three woody species and does not have a significant number of other listed features and is therefore not an important hedgerow.</p> |
| 316 | Hedge 11 | J2.3.2 - Hedge with trees - species-poor | <p>Adjacent to compound and proposed joint bay.</p> <p>Hedgerow is > 30 years old with five woody species but does not have a significant number of other listed features and is therefore not an important hedgerow.</p> |

| Parcel | Hedgerow ID no. | Hedgerow Type (Phase 1 Habitat Description) | Description |
|--------|-----------------|---|---|
| 359 | Hedge 12 | J2.3.2 - Hedge with trees - species-poor | HDD (trenchless technology) route, not impacted by construction. Less than 4 woody species, hedgerow is not protected. |
| 359 | Hedge 12a | J2.1.2 - Intact hedge - species-poor | HDD (trenchless technology) route, not impacted by construction. Less than 4 woody species, hedgerow is not protected. |
| 232 | Hedge 13 | J2.3.2 - Hedge with trees - species-poor | Proposed overhead cable route will pass above hedgerow (no impact). Hedgerow is > 30 years old with three woody species and does not have a significant number of other listed features and is therefore not an important hedgerow. |
| 237 | Hedge 14 | J2.3.2 - Hedge with trees - species-poor | Proposed overhead cable route will pass above hedgerow (no impact). Hedgerow is > 30 years old with three woody species and does not have a significant number of other listed features and is therefore not an important hedgerow. |
| 237 | Hedge 15 | J2.3.2 - Hedge with trees - species-poor | Proposed overhead cable route will pass above hedgerow (no impact). Hedgerow is > 30 years old with three woody species and does not have a significant number of other listed features and is therefore not an important hedgerow. |
| 237 | Hedge 18 | J2.2.2 - Defunct hedge - species-poor | Impacted by an access route which will pass through an existing gap in the hedgerow. A proposed overhead cable route which will pass above hedgerow. Hedgerow is > 30 years old with one woody species and does not have a significant number of other listed features and is therefore not an important hedgerow. |
| 237 | Hedge 21 | J2.3.2 - Hedge with trees - species-poor | Impacted by an access route which will pass through an existing gap in the hedgerow. Hedgerow is > 30 years old with four woody species and does not have a significant number of other listed features and is therefore not an important hedgerow. |

Summary of Habitats by Land Parcel

1.3.45 Table 1.5 highlights the habitats types recorded during the field survey within each land parcel within the Kent Onshore Scheme Order Limits.

Table 1.5 Habitat summary within order limits by land parcel

| Parcel (Approximate size – Hectares) | Land parcel | Approximate Sum of Area (Hectares) |
|--------------------------------------|--|------------------------------------|
| 227 (8.1 ha) | B4 – Improved grassland | 1.2 |
| | B5 – Marsh/marsh grassland | 2.0 |
| | B6 - Poor semi-improved grassland | 4.7 |
| | G2 - Running water | 0.1 |
| | Z99 - Hardstanding | <0.1 |
| 229 (2.5 ha) | B4 – Improved grassland | 2.5 |
| | B6 - Poor semi-improved grassland | 1.7 |
| | F2.1 - Marginal and inundation - marginal vegetation | <0.1 |
| | G2 - Running water | 0.5 |
| | Z99 - Hardstanding | <0.1 |
| 231 (2.5 ha) | B6 - Poor semi-improved grassland | 2.5 |
| | G2 - Running water | <0.1 |
| 232 (15.5 ha) | A1.1.2 - Broadleaved woodland - plantation | 0.3 |
| | A2.2 - Scrub - scattered | <0.1 |
| | B2.2 - Neutral grassland - semi-improved | 6.1 |
| | B4 - Improved grassland | 0.4 |
| | B6 - Poor semi-improved grassland | <0.1 |
| | C3.1 - Other tall herb and fern - ruderal | <0.1 |
| | F1 - Swamp | 0.2 |
| | F2.1 - Marginal and inundation - marginal vegetation | 0.1 |
| | G1 - Standing water | 0.2 |
| | G2 - Running water | 0.7 |

| Parcel (Approximate size – Hectares) | Land parcel | Approximate Sum of Area (Hectares) |
|--------------------------------------|--|------------------------------------|
| | J1.1 - Cultivated/disturbed land - arable | 7.0 |
| | J1.3 - Cultivated/disturbed land - ephemeral/short perennial | 0.2 |
| | Z99 - Hardstanding | 0.2 |
| 233 (<0.1) | G2 - Running water | <0.1 |
| 236 (1.2) | G2 - Running water | 1.2 |
| 237 (34.3 ha) | B4 - Improved grassland | 7.6 |
| | B6 - Poor semi-improved grassland | 0.1 |
| | F2.1 - Marginal and inundation - marginal vegetation | 0.3 |
| | G2 - Running water | 0.8 |
| | J1.1 - Cultivated/disturbed land – arable | 25.2 |
| | J4 - Bare ground | 0.2 |
| | Z99 — Hardstanding | 0.3 |
| | | |
| 238 (1.5 ha) | C3.1 - Other tall herb and fern - ruderal | 0.2 |
| | G2 - Running water | 0.1 |
| | J1.1 - Cultivated/disturbed land - arable | 0.6 |
| | J4 - Bare ground | 0.2 |
| | Z99 - Hardstanding | 0.3 |
| | B2.2 - Neutral grassland - semi-improved | 0.1 |
| 240 (0.7 ha) | A1.1.1 - Broadleaved woodland - semi-natural | 0.7 |
| 244 (51.6 ha) | A2.2 - Scrub - scattered | 0.6 |
| | B2.2 - Neutral grassland - semi-improved | <0.1 |
| | B6 - Poor semi-improved grassland | 0.5 |
| | C3.1 - Other tall herb and fern - ruderal | 0.2 |
| | F1 - Swamp | <0.1 |
| | G2 - Running water | 0.9 |
| | J1.1 - Cultivated/disturbed land - arable | 48.6 |
| | J1.3 - Cultivated/disturbed land - ephemeral/short perennial | 0.1 |

| Parcel (Approximate size – Hectares) | Land parcel | Approximate Sum of Area (Hectares) |
|--------------------------------------|--|------------------------------------|
| | J4 - Bare ground | 0.2 |
| | Z99 - Hardstanding | 0.2 |
| | A2.1 - Scrub - dense/continuous | 0.1 |
| 245 (0.3 ha) | Z99 - Hardstanding | 0.3 |
| | J1.1 - Cultivated/disturbed land - arable | <0.1 |
| 250 (0.2 ha) | J1.1 - Cultivated/disturbed land - arable | 0.1 |
| | J1.2 - Cultivated/disturbed land - amenity grassland | 0.1 |
| 247 (0.8 ha) | G2 - Running water | 0.1 |
| | J1.1 - Cultivated/disturbed land – arable | 0.7 |
| | C3.1 - Other tall herb and fern - ruderal | <0.1 |
| 255 (0.9 ha) | A1.1.1 - Broadleaved woodland - semi-natural | 0.1 |
| | B6 - Poor semi-improved grassland | <0.1 |
| | C3.1 - Other tall herb and fern - ruderal | <0.1 |
| | G2 - Running water | <0.1 |
| | J1.1 - Cultivated/disturbed land - arable | 0.6 |
| | J4 - Bare ground | <0.1 |
| | Z99 - Hardstanding | 0.1 |
| 264 (0.4 ha) | A1.1.1 - Broadleaved woodland - semi-natural | 0.1 |
| | Z99 - Hardstanding | <0.1 |
| 285 (0.1 ha) | A2.2 - Scrub – scattered | <0.1 |
| | J4 - Bare ground | <0.1 |
| | Z99 - Hardstanding | 0.1 |
| 298 (0.1 ha) | Z99 - Hardstanding | 0.1 |
| 316 (4.0 ha) | J1.1 - Cultivated/disturbed land - arable | 3.9 |
| | A1.1.1 - Broadleaved woodland - semi-natural | 0.1 |
| 328 (1.2 ha) | A1.1.1 - Broadleaved woodland - semi-natural | 0.1 |
| | A1.1.2 - Broadleaved woodland - plantation | 0.1 |
| | A2.1 - Scrub - dense/continuous | 0.2 |

| Parcel (Approximate size – Hectares) | Land parcel | Approximate Sum of Area (Hectares) |
|--------------------------------------|--|------------------------------------|
| 336 (3.9 ha) | B6 - Poor semi-improved grassland | 0.1 |
| | J1.1 - Cultivated/disturbed land - arable | <0.1 |
| | Z99 - Hardstanding | 0.7 |
| | A2.2 - Scrub – scattered | <0.1 |
| | B2.2 - Neutral grassland - semi-improved | <0.1 |
| | J1.1 - Cultivated/disturbed land - arable | 3.9 |
| 346 (5.9 ha) | A1.1.1 - Broadleaved woodland - semi-natural | <0.1 |
| | A2.2 - Scrub - scattered | 0.2 |
| | B2.2 - Neutral grassland - semi-improved | <0.1 |
| | C3.1 - Other tall herb and fern - ruderal | <0.1 |
| | J1.1 - Cultivated/disturbed land - arable | 5.7 |
| | J4 - Bare ground | <0.1 |
| | Z99 - Hardstanding | <0.1 |
| 348 (0.1 ha) | Z99 - Hardstanding | <0.1 |
| | G2 - Running water | 0.1 |
| | J1.1 - Cultivated/disturbed land - arable | 0.1 |
| 355 (0.1 ha) | J1.2 - Cultivated/disturbed land - amenity grassland | <0.1 |
| | G2 - Running water | <0.1 |
| | A1.1.1 - Broadleaved woodland - semi-natural | <0.1 |
| 359 (2.3 ha) | A1.1.1 - Broadleaved woodland - semi-natural | 0.2 |
| | C3.2 - Other tall herb and fern - non ruderal | 0.1 |
| | G2 - Running water | <0.1 |
| | J1.2 - Cultivated/disturbed land - amenity grassland | 1.9 |
| | J3.6 - Buildings | <0.1 |
| | J4 - Bare ground | <0.1 |
| | Z99 - Hardstanding | 0.1 |
| 360 (1.5 ha) | A2.1 - Scrub - dense/continuous | <0.1 |
| | B2.2 - Neutral grassland - semi-improved | 0.1 |

| Parcel (Approximate size – Hectares) | Land parcel | Approximate Sum of Area (Hectares) |
|--------------------------------------|--|------------------------------------|
| 373 (0.8 ha) | J1.1 - Cultivated/disturbed land - arable | 1.2 |
| | Z99 - Hardstanding | <0.1 |
| | A1.1.1 - Broadleaved woodland - semi-natural | <0.1 |
| | C3.1 - Other tall herb and fern - ruderal | <0.1 |
| | G1 – Standing Water | 0.7 |
| | H2.6 - Saltmarsh - dense/continuous | <0.1 |
| | J1.2 - Cultivated/disturbed land - amenity grassland | <0.1 |
| | Z99 - Hardstanding | <0.1 |
| 374 (3.8 ha) | A1.1.1 - Broadleaved woodland - semi-natural | <0.1 |
| | A3.1 - Broadleaved parkland/scattered trees | 0.4 |
| | G2 - Running water | 0.1 |
| | J1.2 - Cultivated/disturbed land - amenity grassland | 2.9 |
| | Z99 - Hardstanding | 0.1 |
| 375 (0.2 ha) | A1.1.1 - Broadleaved woodland - semi-natural | 0.3 |
| | A1.1.1 - Broadleaved woodland - semi-natural | <0.1 |
| | C3.1 - Other tall herb and fern - ruderal | 0.1 |
| | G1 - Standing water | <0.1 |
| | J1.2 - Cultivated/disturbed land - amenity grassland | <0.1 |
| 379 (1.9 ha) | Z99 – Hardstanding | <0.1 |
| | G1 - Standing water | 0.2 |
| | H1.1 - Intertidal - mud/sand | 0.9 |
| 380 (<0.1 ha) | H2.6 - Saltmarsh - dense/continuous | 0.8 |
| | G1 - Standing water | <0.1 |
| | J1.2 - Cultivated/disturbed land - amenity grassland | <0.1 |
| 381 (0.1 ha) | G2 - Running water | 0.1 |
| 399 (0.1 ha) | B2.2 - Neutral grassland - semi-improved | <0.1 |

| Parcel (Approximate size – Hectares) | Land parcel | Approximate Sum of Area (Hectares) |
|--------------------------------------|--|------------------------------------|
| 563 (0.5 ha) | J1.1 - Cultivated/disturbed land – arable | <0.1 |
| | Z99 - Hardstanding | 0.1 |
| | A1.1.1 - Broadleaved woodland - semi-natural | <0.1 |
| | A2.1 - Scrub - dense/continuous | <0.1 |
| | A2.2 - Scrub - scattered | 0.1 |
| | B2.2 - Neutral grassland - semi-improved | <0.1 |
| | C3.1 - Other tall herb and fern - ruderal | 0.1 |
| | G2 - Running water | <0.1 |
| 565 (0.1 ha) | J1.1 - Cultivated/disturbed land – arable | <0.1 |
| | G2 - Running water | 0.1 |
| | J1.1 - Cultivated/disturbed land - arable | <0.1 |
| 567 (0.1 ha) | C3.1 - Other tall herb and fern - ruderal | 0.1 |
| | G2 - Running water | <0.1 |
| 570 (0.1 ha) | A1.1.1 - Broadleaved woodland - semi-natural | <0.1 |
| | A2.1 - Scrub - dense/continuous | <0.1 |
| | J1.1 - Cultivated/disturbed land – arable | <0.1 |
| | Z99 - Hardstanding | 0.1 |
| 573 (0.2 ha) | G2 - Running water | 0.2 |
| 575 (0.1 ha) | G2 - Running water | 0.1 |
| 577 (<0.1 ha) | G2 - Running water | <0.1 |
| 578 (0.1 ha) | J1.1 - Cultivated/disturbed land - arable | <0.1 |
| | G2 - Running water | 0.1 |
| 579 (0.3 ha) | B6 - Poor semi-improved grassland | <0.1 |
| | F2.1 - Marginal and inundation - marginal vegetation | <0.1 |
| | G2 - Running water | 0.3 |
| 598 (0.2 ha) | J1.1 - Cultivated/disturbed land - arable | <0.1 |
| | Z99 - Hardstanding | 0.1 |
| | A1.1.1 - Broadleaved woodland - semi-natural | <0.1 |

| Parcel (Approximate size – Hectares) | Land parcel | Approximate Sum of Area (Hectares) |
|--------------------------------------|--|------------------------------------|
| 599 (0.5 ha) | B2.2 - Neutral grassland - semi-improved | 0.1 |
| | G2 – Running Water | <0.1 |
| | A1.1.1 - Broadleaved woodland - semi-natural | 0.1 |
| 611 (0.2 ha) | B2.2 - Neutral grassland - semi-improved | 0.1 |
| | Z99 - Hardstanding | 0.2 |
| | J1.1 - Cultivated/disturbed land - arable | <0.1 |
| | Z99 - Hardstanding | 0.2 |
| 612 (<0.1 ha) | A1.1.1 - Broadleaved woodland - semi-natural | <0.1 |
| | Z99 - Hardstanding | <0.1 |
| 613 (0.1 ha) | Z99 - Hardstanding | 0.1 |
| | A1.1.1 - Broadleaved woodland - semi-natural | <0.1 |
| 616 (0.3 ha) | G2 - Running water | 0.3 |
| | A2.2 - Scrub - scattered | <0.1 |
| 618 (<0.1 ha) | B2.2 - Neutral grassland - semi-improved | <0.1 |
| | G2 - Running water | <0.1 |
| | A2.1 - Scrub - dense/continuous | 0.1 |
| Hoverport Area (1.3 ha) | A2.2 - Scrub - scattered | <0.1 |
| | J1.4 - Introduced shrub | <0.1 |
| | Hardstanding | 1.1 |
| | B6 - Poor semi-improved grassland | 0.2 |
| Compound Area (1.1 ha) | J1.1 - Cultivated/disturbed land – arable | 0.6 |
| | A1.1.2 - Broadleaved woodland - plantation | <0.1 |
| | Hardstanding | 0.3 |
| | J1.1 - Cultivated/disturbed land – arable | 12.2 |
| Mitigation Land (A256) (13.1 ha) | G1 - Standing water | <0.1 |
| | J1.3 - Cultivated/disturbed land - ephemeral/short perennial | <0.1 |
| | A2.1 - Scrub - dense/continuous | <0.1 |
| | J3.6 – Buildings | <0.1 |

| Parcel (Approximate size – Hectares) | Land parcel | Approximate Sum of Area (Hectares) |
|--------------------------------------|--------------------|------------------------------------|
| | G2 - Running Water | 0.1 |

Target Notes

- 1.3.46 Target notes to highlight specific habitat and species features are provided in Table 1.6 below and shown in **Application Document 6.4.3.2.A.3 Kent Target Notes**.

Table 1.6 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 |  |

Plate 1.5 Low potential bat roost tree (382B-1)

| Target Note Reference | Location | Description | Photograph |
|---|----------|---|---|
| Plate 1.6 Low potential bat roost tree (399-1) | | | |
| 232-E1 | TR307629 | Ephemeral/short perennial – assessed as good quality. | No picture |
| 244-1 | TR320631 | Giant salvinia, an invasive non-native species, was found in the watercourse. |  |
| Plate 1.7 Water course vegetation (244-1) | | | |
| 244-2 | TR329634 | Low potential bat roost tree. |  |
| Plate 1.8 Low potential bat roost (244-2) | | | |

| Target Note Reference | Location | Description | Photograph |
|-----------------------|----------|-------------------------------|---|
| 244-3 | TR329634 | Low potential bat roost tree. |  <p>Plate 1.9 Low potential bat roost (244-3)</p> |
| 244-4 | TR321631 | Owl roosting box. |  <p>Plate 1.10 Owl roosting box (244-4)</p> |
| 244-5 | TR323632 | Owl roosting box. |  |

| Target Note Reference | Location | Description | Photograph |
|-----------------------|----------|--|---|
| | | | Plate 1.11 Owl roosting box (245-4) |
| 250-1 | TR330630 | Compost pile, potential for reptiles. | No picture |
| HP1 Tidal Area | TR350639 | Tidally inundated concrete pad with mud encroaching at edge grading into salt marsh. Bladder wrack, <i>Ulva intestinalis</i> |  |
| | | | Plate 1.12 Tidal Area (HP1) |
| HP2 Japanese Rose | TR349639 | Japanese Rose (<i>Kerria japonica</i>) |  |
| | | | Plate 1.13 Tidal Area (HP2) |


| Target Note Reference | Location | Description | Photograph |
|-----------------------|----------|--|---|
| HP3 Common Lizard | TR350640 | Common lizard disturbed in edge of ivy. High reptile potential throughout the scrub edge |  |

Plate 1.14 Scrub (HP3)


| | | | |
|-------------------|----------|---------------|--|
| HP4 Japanese Rose | TR350640 | Japanese Rose |  |
|-------------------|----------|---------------|--|

Plate 1.15 Japanese Rose (HP4)




| | | | |
|----------|----------|--|---|
| HP5 INNS | TR351640 | Wall cotoneaster (<i>Cotoneaster horizontalis</i>) |  |
|----------|----------|--|---|

Plate 1.16 Wall Cotoneaster (HP5)

| Target Note Reference | Location | Description | Photograph |
|--|----------|---|--|
| HP6 <i>Rubus laciniatus</i> | TR351642 | Cut leaf evergreen blackberry |  |
| Plate 1.17 Wall <i>Rubus laciniatus</i> (HP6) | | | |
| HP7 Harvest Mouse | TR354644 | Harvest mouse seen eating blackberries | No picture |
| HP8 Earth Bank and Ruderal | TR354645 | Bank of made ground supporting road now vegetated with ruderal and single goat willow. Reptile potential in banks and ruderal |  |
| Plate 1.18 Bank with reptile potential (HP8) | | | |

Protected and Notable Species

Introduction

- 1.4.1 The following protected and notable species are reported separately in the following documents and are not discussed further in this document:
- Birds – Wintering (**Application Document 6.3.2.2.B Appendix 3.2.B Wintering Bird Survey Report 2022 – 2023**);
 - Birds – Wintering (**Application Document 6.3.2.2.C Appendix 3.2.C Wintering Bird Survey Report 2023 – 2024**);
 - Birds – Breeding (**Application Document 6.3.2.2.D Appendix 3.2.D Breeding Bird Survey Report 2022 – 2023**);

- Birds – Breeding (**Application Document 6.3.2.2.E Appendix 3.2.E Breeding Bird Survey Report 2023 – 2024**);
- Birds (**Application Document 6.3.2.2.F Appendix 3.2.F Vantage Point Survey Report**);
- Birds (**Application Document 6.3.2.2.G Appendix 3.2.G Overhead Line Mortality Monitoring Survey Report**);
- Riparian Mammals – otter and water vole (**Application Document 6.3.2.2.H Appendix 3.2.H Riparian Mammal Survey Report**);
- Reptile (**Application Document 6.3.2.2 ES Appendix 3.2.I Reptile Survey Report**);
- Terrestrial Invertebrates (**Application Document 6.3.2.2.J Appendix 3.2.J Terrestrial Invertebrate Survey Report**);
- Bats – potential for roosting bats (**Application Document 6.3.2.2.K Appendix 3.2.K Bat Tree Survey Report**);
- Bats – potential for foraging and commuting (**Application Document 6.3.2.2.L Appendix 3.2.L Nighttime Bat Walkover and Static Detector Report Bird Survey Report**);
- Hazel Dormouse (**Application Document 6.3.2.2.M Appendix 3.2.M Hazel Dormouse Survey Report**); and
- Aquatic species (**Application Document 6.3.2.2.N Appendix 3.2.N Aquatic Ecology Survey Report**).

Badger

Desk study

- 1.4.2 The closest record of badger (*Meles meles*) within the desk study was located approximately [REDACTED] of the Kent Onshore Scheme Order Limits in 2017.
- 1.4.3 There is extensive suitable habitat for badger throughout the Kent Onshore Scheme Order Limits, with habitat suitable for both foraging and excavation of setts and sufficient to support several social groups.

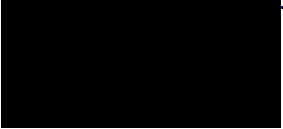

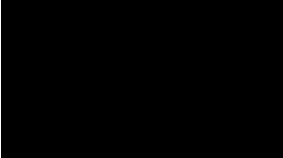



Field survey

- 1.4.4 The locations of identified signs of badger presence are provided in **Application Document 6.4.3.2.A.4 Kent Badger Evidence Locations** (note that the location of badger setts is confidential) and a description and photographs of findings are provided in Table 1.7.
- 1.4.5 Six potential sett entrances were identified within woodland located in [REDACTED]. These were outside of the Kent Onshore Scheme Order Limits at a range of approximately 17 m to 85 m. Further evidence of badger presence at these entrances was provided by badger hair and footprints in close proximity. Fresh digging was identified at these sites during 2023.
- 1.4.6 Evidence of two badger latrines was found within Kent Onshore Scheme Order Limits, [REDACTED] of the woodland where potential setts had been identified.

- 1.4.7 A further badger latrine was identified in [REDACTED] on the Kent Onshore Scheme Order Limits.
- 1.4.8 The habitats and ground conditions provide significant opportunity to badgers across the Kent Onshore Scheme Order Limits. These habitats include earthen banks, woodland, agricultural fields and areas of mixed scrub, grassland, and hedgerow.

Table 1.7 Indications of badger presence

| Location | Description | Photograph |
|--|----------------|------------------------|
|  | Badger latrine | No Photograph |
| | Badger latrine | <i>[Photo removed]</i> |
| Plate 1.19 Badger latrine  | | |
|  | Badger latrine | <i>[Photo removed]</i> |
| Plate 1.20 Badger latrine  | | |
|  | Footprint | <i>[Photo removed]</i> |
| Plate 1.21 Badger footprint  | | |
|  | Sett | <i>[Photo removed]</i> |
| Plate 1.22 Badger sett  | | |
|  | Hair | <i>[Photo removed]</i> |
| Plate 1.23 Badger hair  | | |
|  | Sett | <i>[Photo removed]</i> |
| Plate 1.24 Badger sett  | | |
|  | Hair | <i>[Photo removed]</i> |
| Plate 1.25 Badger hair  | | |
|  | Sett | <i>[Photo removed]</i> |
| Plate 1.26 Badger sett  | | |

| Location | Description | Photograph |
|---|-------------|------------------------|
|  | Sett | <i>[Photo removed]</i> |
| Plate 1.27 Badger sett  | | |
|  | Sett | <i>[Photo removed]</i> |
| Plate 1.28 Badger sett  | | |
|  | Sett | <i>[Photo removed]</i> |
| Plate 1.29 Badger sett  | | |

Great Crested Newt

Desk study

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

Field survey

- 1.4.11 There were suitable waterbodies present within the Kent Onshore Scheme Order Limits and within 500 m of the Kent Onshore Scheme Order Limits to support great crested newt. There was also a range of suitable terrestrial habitats present including; hedgerows, grassland, woodland, and arable margin. Great crested newts have not been considered further in this document as the Proposed Project will make use of the District Licensing Scheme.

Other Notable Fauna

Desk study

- 1.4.12 The Kent Biological Records Centre returned records of five notable species; smooth newt (*Lissotriton vulgaris*), west European hedgehog, 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 Order Limits within the last ten years. The closest record of smooth newt was located within 900 m of the Kent Onshore Scheme Order Limits, west European hedgehog; 1.5 km north in 2021, and brown hare was located within the Kent Onshore Scheme Order Limits in 2021. The marine species grey seal was located 495 m northeast in 2015 and harbour seal 1.3 km east in 2015.

Field survey

- 1.4.13 A detailed survey for the above 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 Order Limits are suitable to support a number of notable species including west European hedgehog, brown hare, harvest mouse (*Micromys minutus*), common toad (*Bufo bufo*) and water shrew (*Neomys fodiens*) all of which were returned within the desk study but those not mentioned above were at distances greater than 2 km. West European hedgehog, brown hare, and harbour seal are all species of principal importance.
- 1.4.14 Brown hare were seen on a number of occasions during terrestrial surveys in land parcels to the north and south of the River Stour.

Notable Flora

Desk study

- 1.4.15 The data search returned records of a single plant species within 2 km of the Kent Onshore Scheme Order Limits within the last ten years; which is listed on Schedule 8 of the Wildlife and Countryside Act (1981) as amended (HM Government, 1981). 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 Order Limits in 2020. The closest species of principal importance were knot grass (*Acronicta rumicis*), which was located within the Kent Onshore Scheme Order Limits in 2016, and man orchid (*orchis anthropophora*) which was recorded 70 m north of the Kent Onshore Scheme Order Limits in 2020.

Field survey

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

Invasive Non-Native Species

Desk study

- 1.4.17 The data search returned records of three plant species, and seven animal species listed on Schedule 9 of the Wildlife and Countryside Act (1981) as amended (HM

Government, 1981), or on the Invasive Alien Species (Enforcement and Permitting) Order 2019 (HM Government, 2019), within the 2 km of the Kent Onshore Scheme Order Limits within the last ten years. These species are listed in Table 1.8.

Table 1.8 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 Order Limits |
|---|--|--|--|
| Marsh frog (<i>Pelophylax ridibundus</i>) | ✓ | | Within Kent Onshore Scheme Order Limits, 2018 |
| Mandarin duck (<i>Aix galericulata</i>) | ✓ | | Approximately 260 m east, 2019 |
| Egyptian goose (<i>Alopochen aegyptiacus</i>) | ✓ | ✓ | Approximately 290 m southeast, 2019 |
| Canada goose (<i>Branta canadensis</i>) | ✓ | | Within 2 km, 2019 |
| American slipper limpet (<i>Crepidula fornicata</i>) | ✓ | | Approximately 1.4 km south, 2022 |
| Chinese mitten crab (<i>Eriocheir sinensis</i>) | ✓ | | Approximately 310 m southwest, 2022 |
| Green parakeet (<i>Psittacara holochlorus</i>) | ✓ | | Within 2 km, 2019 |
| Nuttall's waterweed (<i>Elodea nuttallii</i>) | ✓ | | Approximately 10 m west, 2016 |
| Western conifer seed bug (<i>Leptoglossus occidentalis</i>) | ✓ | | Approximately 1.4 km north, 2021 |

Field survey

- 1.4.18 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 Order Limits were buddleia (*Buddleia davidii*), and cherry laurel (*Prunus laurocerasus*). Giant hogweed (*Heracleum mantegazzianum*) was observed at (TR308632) approximately 20 m east of the Kent Onshore Scheme Order Limits at Marsh Farm Road. Giant hogweed is a Schedule 9 species. Perfoliate Alexander's (*Smyrniium perfoliatum*) located at (TR342631) which is a Schedule 9 species was located around 400 m southeast of the Kent Onshore Scheme Order Limits within

Pegwell Bay Country Park. Wall cotoneaster (*Cotoneaster horizontalis*) and Japanese rose (*Kerria japonica*) (both Schedule 9 species) were observed in the Hoverport area.

- 1.4.19 During a survey in July 2023, a group of approximately five mink (*Mustela vison*) were observed at (TR329632). Mink is a Schedule 9 species. A further possible sighting of mink was recorded during a survey in August 2024 at (TR320621).
- 1.4.20 During a survey in June 2024, three frogs were observed at (TR321632). These were identified as either the pool frog (*Pelophylax lessonae*) or marsh frog (*Rana ridibunda*). The marsh frog is a Schedule 9 species.
- 1.4.21 During the field survey many of the wet ditches, particularly in the west of land parcel 244, contained extensive growth of giant salvinia. 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 (HM Government, 1981).

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Annex 2.A.1 Species Data Records Summary

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

A.1.2 The granularity of bird data for Kent and Medway Biological Records Centre, does not allow for the full population of the Annex Table 1 (below). The following conventions have been used when populating with this data:

- As no grid reference is provided for the most recent records then this is recorded as “Within 2 km” (of the Kent Onshore Scheme Order Limits) as no further information can be derived from the data provided.
- Where a grid reference is less than 8 digits (AANNNNNN), then the granularity is insufficient for accurate reporting and the record is not considered for inclusion in the table.

Where a grid reference is 8 digits (AANNNNNN) represent 1 km square then the distance to the Kent Onshore Scheme Order Limits is recorded as “Within 2 km”.

- Where the nearest record is more than 10 years old, which is beyond the usual scope of the desk study, it is recorded in the table as “pre 2014” to signify that it is an aged record.

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

| Common Name | Scientific Name | Legally Protected Species | Species of Principal Importance | Other Notable Species | Present within Order Limits | Present/ Potentially Present in wider Zol | Latest Record (approximate distance) | Closest Record (approximate distance) |
|-----------------|-----------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| Amphibians | | | | | | | | |
| Common frog | <i>Rana temporaria</i> | Y | - | - | - | Y | 1.9 km east, 2023 | 1.8 km west, 2022 |
| Common toad | <i>Bufo bufo</i> | Y | Y | - | - | Y | 1 km southwest, 2021 | 1 km southwest, 2021 |
| Smooth newt | <i>Lissotriton vulgaris</i> | Y | - | - | - | Y | 1 km southwest, 2021 | 170 m northeast, 2019 |
| Mammals (Bats) | | | | | | | | |
| Serotine | <i>Eptesicus serotinus</i> | Y | - | Y | - | Y | 435 m southeast, 2019 | 435 m northeast, 2016 |
| Daubenton's bat | <i>Myotis daubentonii</i> | Y | - | - | - | Y | 435 m southwest, 2016 | 435 m southwest, 2016 |
| Natterer's bat | <i>Myotis nattereri</i> | Y | - | Y | - | Y | 180 m northeast, 2020 | 180 m northeast, 2020 |
| Leisler's bat | <i>Nyctalus leisleri</i> | Y | - | - | - | Y | 435 m southwest, 2016 | 435 m southwest, 2016 |

| Common Name | Scientific Name | Legally Protected Species | Species of Principal Importance | Other Notable Species | Present within Order Limits | Present/Potentially Present in wider Zol | Latest Record (approximate distance) | Closest Record (approximate distance) |
|------------------------|----------------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|--|---|---|
| Noctule bat | <i>Nyctalus noctula</i> | Y | Y | - | - | Y | 70 m west, 2021 | 70 m southwest, 2021 |
| Brown long-eared bat | <i>Plecotus auritus</i> | Y | Y | - | - | Y | 70 m west, 2021 | 70 m west, 2021 |
| Common pipistrelle | <i>Pipistrellus pipistrellus</i> | Y | - | - | - | Y | 80 m northwest, 2022 | 70 m, west, 2021 |
| Soprano pipistrelle | <i>Pipistrellus pygmaeus</i> | Y | - | - | - | Y | 360 m northwest, 2022 | 70 m west, 2021 |
| Nathusius' pipistrelle | <i>Pipistrellus nathusii</i> | Y | - | - | - | Y | 435 m southwest, 2016 | 435 m southwest, 2016 |
| Mammals (excl. bats) | | | | | | | | |
| European water vole | <i>Arvicola amphibius</i> | Y | Y | Y | - | Y | 100 m southeast, 2024 | 10 m northwest, 2017 |
| Beaver | <i>Castor fiber</i> | | - | - | Y | - | Within Kent Onshore Scheme Order Limits, 2024 | Within Kent Onshore Scheme Order Limits, 2024 |

| Common Name | Scientific Name | Legally Protected Species | Species of Principal Importance | Other Notable Species | Present within Order Limits | Present/ Potentially Present in wider Zol | Latest Record (approximate distance) | Closest Record (approximate distance) |
|------------------------|----------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|---|---|
| West European hedgehog | <i>Erinaceus europaeus</i> | - | Y | Y | - | Y | 980 m north, 2023 | 870 m north, 2021 |
| Grey seal | <i>Halichoerus grypus</i> | Y | - | - | - | Y | 295 m west, 2023 | 25 m north, 2017 |
| Brown hare | <i>Lepus europaeus</i> | - | Y | - | Y | Y | Within Kent Onshore Scheme Order Limits, 2024 | Within Kent Onshore Scheme Order Limits, 2024 |
| Eurasian otter | <i>Lutra lutra</i> | Y | Y | - | - | Y | 1.8 km west, 2022 | 960 m south, 2017 |
| Eurasian badger | <i>Meles meles</i> | Y | - | - | - | Y | | |
| Harvest mouse | <i>Micromys minutus</i> | - | Y | Y | Y | Y | Within Kent Onshore Scheme Order Limits, 2024 | Within Kent Onshore Scheme Order Limits, 2024 |
| Harbour seal | <i>Phoca vitulina</i> | Y | Y | - | Y | Y | 50 m northwest, 2024 | Within Kent Onshore Scheme Order Limits, 2023 |
| Reptiles | | | | | | | | |

| Common Name | Scientific Name | Legally Protected Species | Species of Principal Importance | Other Notable Species | Present within Order Limits | Present/ Potentially Present in wider Zol | Latest Record (approximate distance) | Closest Record (approximate distance) |
|------------------|---------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|---|---|
| Common lizard | <i>Zootoca vivipara</i> | Y | Y | - | Y | Y | Within Kent Onshore Scheme Order Limits, 2023 | Within Kent Onshore Scheme Order Limits, 2023 |
| Slow worm | <i>Anguis fragilis</i> | Y | Y | - | Y | Y | Within Kent Onshore Scheme Order Limits, 2023 | Within Kent Onshore Scheme Order Limits, 2023 |
| Sand lizard | <i>Lacerta agilis</i> | Y | Y | - | - | Y | 1.2 km south, 2022 | 1.2 km south, 2022 |
| Grass snake | <i>Natrix helvetica</i> | Y | Y | - | Y | Y | 1.5 km southeast, 2022 | Within Kent Onshore Scheme Order Limits, 2021 |
| Birds | | | | | | | | |
| Sparrowhawk | <i>Accipiter nisus</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Common sandpiper | <i>Actitis hypoleucos</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2019 |
| Skylark | <i>Alauda arvensis</i> | - | Y | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Razorbill | <i>Alca torda</i> | - | - | Y | - | | Within 2 km, 2019 | Within 2 km, 2017 |

| Common Name | Scientific Name | Legally Protected Species | Species of Principal Importance | Other Notable Species | Present within Order Limits | Present/ Potentially Present in wider Zol | Latest Record (approximate distance) | Closest Record (approximate distance) |
|----------------------|------------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| Kingfisher | <i>Alcedo atthis</i> | Y | - | - | - | Y | Within 2 km, 2019 | 110 m northwest, pre 2014 |
| Red-legged partridge | <i>Alectoris rufa</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Little auk | <i>Alle alle</i> | - | - | - | - | Y | Within 2 km, 2016 | Within 2 km, pre 2014 |
| Egyptian goose | <i>Alopochen aegyptiacus</i> | INNS | - | - | - | Y | Within 2 km southeast, 2019 | Within 2 km southeast, 2019 |
| Pintail | <i>Anas acuta</i> | Y | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Shoveler | <i>Anas clypeata</i> | - | - | Y | - | Y | Within 2 km, 2019 | 110 m northwest, pre 2014 |
| Teal | <i>Anas crecca</i> | - | - | Y | - | Y | Within 2 km, 2019 | 110 m northwest, pre 2014 |
| Wigeon | <i>Anas penelope</i> | - | - | Y | - | Y | Within 2 km, 2019 | 110 m northwest, 2019 |
| Mallard | <i>Anas platyrhynchos</i> | - | - | Y | - | Y | Within 2 km, 2019 | 110 m northwest, pre 2014 |
| Gadwall | <i>Anas strepera</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| White-fronted goose | <i>Anser albifrons</i> | - | Y | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |

| Common Name | Scientific Name | Legally Protected Species | Species of Principal Importance | Other Notable Species | Present within Order Limits | Present/ Potentially Present in wider Zol | Latest Record (approximate distance) | Closest Record (approximate distance) |
|-------------------|-----------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| 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 | 100 m southwest, pre 2014 |
| Bean goose | <i>Anser fabalis</i> | - | - | Y | - | Y | Within 2 km, 2018 | Within 2 km, pre 2014 |
| Rock pipit | <i>Anthus petrosus</i> | - | - | - | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Meadow pipit | <i>Anthus pratensis</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Water pipit | <i>Anthus spinoletta</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Tree pipit | <i>Anthus trivialis</i> | - | Y | - | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Swift | <i>Apus apus</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2018 |
| Grey heron | <i>Ardea cinerea</i> | - | - | - | - | Y | Within 2 km, 2019 | 110 m northwest, pre 2014 |
| Turnstone | <i>Arenaria interpres</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Short-eared owl | <i>Asio flammeus</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |

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|----------------|----------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| Long-eared owl | <i>Asio otus</i> | - | - | - | - | Y | Within 2 km, 2018 | Within 2 km, pre 2014 |
| Pochard | <i>Aythya ferina</i> | - | - | Y | - | Y | Within 2 km, 2019 | 110 m northwest, pre 2014 |
| Tufted duck | <i>Aythya fuligula</i> | - | - | - | - | Y | Within 2 km, 2019 | 110 m northwest, pre 2014 |
| Scaup | <i>Aythya marila</i> | Y | Y | Y | - | Y | Within 2 km, 2018 | Within 2km, 2015 |
| Waxwing | <i>Bombycilla garrulus</i> | - | - | - | - | Y | Within 2 km, 2018 | Within 2 km, pre 2014 |
| Brent goose | <i>Branta bernicla</i> | - | Y | Y | - | Y | Within 2 km, 2018 | Within 2 km, 2018 |
| Barnacle goose | <i>Branta leucopsis</i> | | - | Y | - | Y | Within 2 km, 2017 | 260 m east, 2017 |
| Cattle egret | <i>Bubulcus ibis</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2019 |
| Goldeneye | <i>Bucephala clangula</i> | Y | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Stone-curlew | <i>Burhinus oedicnemus</i> | Y | Y | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2017 |
| Common buzzard | <i>Buteo buteo</i> | | - | - | - | Y | Within 2 km, 2019 | Within 2 km, 2018 |

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|----------------------|----------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| Rough-legged buzzard | <i>Buteo buteo</i> | | - | - | - | Y | Within 2 km, 2019 | Within 2 km, 2018 |
| Lapland bunting | <i>Calcaeus lapponicus</i> | Y | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Sanderling | <i>Calidris alba</i> | | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Dunlin | <i>Calidris alpina</i> | | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Knot | <i>Calidris canutus</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| 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, 2017 | Within 2 km, 2017 |
| Little stint | <i>Calidris minuta</i> | | - | - | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Lesser redpoll | <i>Acanthis cabaret</i> | - | Y | Y | - | Y | Within 2 km, 2018 | Within 2 km, 2018 |
| Goldfinch | <i>Carduelis carduelis</i> | | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Greenfinch | <i>Carduelis chloris</i> | | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |

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|-------------------------|--------------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| Common redpoll | <i>Carduelis flammea</i> | - | - | Y | - | Y | Within 2 km, 2018 | Within 2 km, pre 2014 |
| Twite | <i>Carduelis flavirostris</i> | - | Y | Y | - | Y | Within 2 km, 2015 | Within 2 km, 2015 |
| Siskin | <i>Carduelis spinus</i> | - | Y | Y | - | Y | Within 2 km, 2019 | 880 m southeast, 2019 |
| Treecreeper | <i>Certhia familiaris</i> | - | - | - | - | Y | Within 2 km, 2019 | Within 2 km, 2017 |
| Cetti's warbler | <i>Cettia cetti</i> | Y | - | Y | - | Y | Within 2 km, 2019 | 110 m northwest, pre 2014 |
| Kentish plover | <i>Charadrius alexandrinus</i> | 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, pre 2014 |
| Ringed plover | <i>Charadrius hiaticula</i> | | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Dotterel | <i>Charadrius morinellus</i> | - | - | Y | - | Y | Within 2 km, 2016 | Within 2 km, 2016 |
| White-winged black tern | <i>Chlidonias leucopterus</i> | - | - | Y | - | Y | Within 2 km, 2016 | Within 2 km, 2016 |
| Black tern | <i>Chlidonias niger</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2019 |

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|-------------------|--------------------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| White stork | <i>Ciconia ciconia</i> | - | - | - | - | Y | Within 2 km, 2018 | Within 2km, pre 2014 |
| Marsh harrier | <i>Circus aeruginosus</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Pallid harrier | <i>Circus macrourus</i> | - | Y | Y | - | Y | Within 2 km, 2015 | Within 2 km, 2015 |
| Hen harrier | <i>Circus cyaneus</i> | - | Y | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Montagu's harrier | <i>Circus pygargus</i> | - | - | Y | - | Y | Within 2 km, 2016 | 270 m south, 2016 |
| Hawfinch | <i>Coccothraustes coccothraustes</i> | - | Y | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2017 |
| Stock dove | <i>Columba oenas</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Wood pigeon | <i>Columba palumbus</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Raven | <i>Corvus corax</i> | - | - | - | - | Y | Within 2 km, 2019 | 100 m southwest, 2016 |
| Corncrake | <i>Crex crex</i> | Y | Y | Y | - | Y | Within 2 km, 2018 | 110 m northwest, pre 2014 |
| Cuckoo | <i>Cuculus canorus</i> | - | Y | - | - | Y | Within 2 km, 2019 | 110 m northwest, pre 2014 |

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|--------------------------|-----------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| Bewick's swan | <i>Cygnus columbianus</i> | Y | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Whooper swan | <i>Cygnus cygnus</i> | Y | - | Y | - | Y | Within 2 km, 2018 | Within 2 km, pre 2014 |
| Mute swan | <i>Cygnus olor</i> | - | - | - | - | Y | Within 2 km, 2019 | 1.7 km southeast, pre 2014 |
| Great spotted woodpecker | <i>Dendrocopus major</i> | - | - | - | - | Y | Within 2 km, 2019 | 1.7 km southeast, pre 2014 |
| Great white egret | <i>Egretta alba</i> | Y | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2018 |
| Little egret | <i>Egretta garzetta</i> | Y | - | - | - | Y | Within 2 km, 2019 | Within 2 km, 2019 |
| Yellowhammer | <i>Emberiza citrinella</i> | - | Y | Y | - | Y | Within 2 km, 2018 | Within 2 km, pre 2014 |
| Ortolan bunting | <i>Emberiza hortulana</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2018 |
| Reed bunting | <i>Emberiza schoeniclus</i> | - | Y | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Shore lark | <i>Eremophila alpestris</i> | Y | - | Y | - | Y | Within 2 km, 2017 | Within 2 km, 2016 |
| Merlin | <i>Falco columbarius</i> | Y | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |

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|----------------------|---------------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| Peregrine | <i>Falco peregrinus</i> | Y | - | - | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Hobby | <i>Falco subbuteo</i> | Y | - | - | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Kestrel | <i>Falco tinnunculus</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Red-footed falcon | <i>Falco vespertinus</i> | - | - | Y | - | Y | Within 2 km, 2018 | Within 2 km, 2017 |
| Pied flycatcher | <i>Ficedula hypoleuca</i> | - | - | Y | - | Y | Within 2 km, 2018 | Within 2 km, 2017 |
| Brambling | <i>Fringilla montifringilla</i> | Y | - | - | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Coot | <i>Fulica atra</i> | - | - | Y | - | Y | Within 2 km, 2019 | 110 m northwest, pre 2014 |
| Moorhen | <i>Gallinula chloropus</i> | - | - | Y | - | Y | Within 2 km, 2019 | 110 m northwest, 2019 |
| Fulmar | <i>Fulmarus glacialis</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2019 |
| Snipe | <i>Gallinago gallinago</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Black-throated diver | <i>Gavia arctica</i> | Y | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2018 |

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|--------------------------|------------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| Great northern diver | <i>Gavia immer</i> | Y | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2017 |
| Red-throated diver | <i>Gavia stellata</i> | Y | - | - | - | Y | Within 2 km, 2019 | Within 2 km, 2019 |
| Crane | <i>Grus grus</i> | Y | - | Y | - | Y | Within 2 km, 2017 | Within 2 km, 2017 |
| Oystercatcher | <i>Haematopus ostralegus</i> | - | - | Y | - | Y | Within 2 km, 2019 | 110 m northwest, pre 2014 |
| Black-winged stilt | <i>Himantopus himantopus</i> | Y | - | Y | - | Y | Within 2km south, 2018 | Within 2km south, 2018 |
| Wryneck | <i>Jynx torquilla</i> | Y | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Red-backed shrike | <i>Lanius collurio</i> | Y | - | Y | - | Y | Within 2 km, 2018 | Within 2 km, 2018 |
| Herring gull | <i>Larus argentatus</i> | - | Y | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| 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, pre 2014 |
| Lesser black-backed gull | <i>Larus fuscus</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |

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|-------------------------|-----------------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| Iceland gull | <i>Larus glaucooides</i> | - | - | Y | - | Y | Within 2 km, 2017 | Within 2 km, 2017 |
| Glaucous gull | <i>Larus hyperboreus</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Great black-backed gull | <i>Larus marinus</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| 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>Larus minutus</i> | Y | - | - | - | Y | Within 2 km, 2019 | Within 2 km, pre 214 |
| Black-headed gull | <i>Chroicocephalus ridibundus</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2018 |
| Bar-tailed godwit | <i>Limosa lapponica</i> | Y | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2018 |
| Black-tailed godwit | <i>Limosa limosa</i> | Y | Y | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Savi's warbler | <i>Locustella luscinioides</i> | Y | Y | Y | - | Y | Within 2 km, 2015 | Within 2 km, 2015 |
| Common crossbill | <i>Loxia curvirostra</i> | Y | - | - | - | Y | Within 2 km, 2018 | Within 2 km, pre 2014 |

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|------------------------|----------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| Woodlark | <i>Lullula arborea</i> | Y | Y | - | - | Y | Within 2 km, 2018 | Within 2 km, pre 2014 |
| Jack snipe | <i>Lymnocyptes minimus</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Velvet scoter | <i>Melanitta fusca</i> | Y | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2017 |
| Common scoter | <i>Melanitta nigra</i> | Y | Y | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2019 |
| Smew | <i>Mergus albellus</i> | Y | - | Y | - | Y ^{''} | Within 2 km, 2018 | Within 2 km, pre 2014 |
| Goosander | <i>Mergus merganser</i> | - | - | Y | - | Y | Within 2km, 2019 | Within 2km, pre 2014 |
| Red-breasted merganser | <i>Mergus serrator</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2019 |
| Bea-eater | <i>Merops apiaster</i> | Y | - | Y | - | Y | Within 2km, 2018 | Within 2km, 2018 |
| Black kite | <i>Milvus migrans</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2019 |
| Red kite | <i>Milvus milvus</i> | Y | - | - | - | Y | Within 2 km, 2019 | Within 2 km, 2018 |
| Gannet | <i>Morus bassanus</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2017 |

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|---------------------|----------------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| Grey wagtail | <i>Motacilla cinerea</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Yellow wagtail | <i>Motacilla flava</i> | - | Y | Y | - | Y | Within 2 km, 2019 | 110 m NW, pre 2014 |
| Red-crested pochard | <i>Netta rufina</i> | INNS | - | - | - | Y | Within 2 km, 2015 | Within 2 km, pre 2014 |
| Curlew | <i>Numenius arquata</i> | - | Y | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Whimbrel | <i>Numenius phaeopus</i> | Y | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2018 |
| Wheatear | <i>Oenanthe oenanthe</i> | | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Osprey | <i>Pandion haliaetus</i> | Y | - | Y | - | Y | Within 2 km, 2017 | Within 2 km, pre 2014 |
| Bearded tit | <i>Panurus biarmicus</i> | Y | - | - | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Grey partridge | <i>Perdix perdix</i> | - | Y | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Honey buzzard | <i>Pernis apivorous</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2017 |
| Shag | <i>Phalacrocorax aristotelis</i> | - | - | Y | - | Y | Within 2km, 2019 | Within 2km, 2019 |

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|-----------------------|--------------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| 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, pre 2014 |
| 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, pre 2014 |
| Yellow-browed warbler | <i>Phylloscopus inornatus</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Wood warbler | <i>Phylloscopus sibilatrix</i> | - | Y | 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, pre 2014 |
| Snow bunting | <i>Plectrophenax nivalis</i> | Y | - | Y | - | Y | Within 2 km, 2017 | Within 2 km, 2017 |
| Glossy ibis | <i>Plegadis falcinellus</i> | = | = | Y | - | Y | Within 2 km, 2016 | Within 2 km, 2014 |
| Golden plover | <i>Pluvialis apricaria</i> | Y | - | - | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Grey plover | <i>Pluvialis squatarola</i> | - | - | Y | - | Y | Within 2 km, 2019 | 677 m north, pre 2014 |

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|--------------------|-------------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| Slavonian grebe | <i>Podiceps auritus</i> | Y | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2019 |
| Red-necked grebe | <i>Podiceps grisegena</i> | Y | - | Y | - | Y | Within 2 km, 2018 | Within 2 km, pre 2014 |
| Black-necked grebe | <i>Podiceps nigricollis</i> | Y | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Dunnock | <i>Prunella modularis</i> | - | Y | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Water rail | <i>Rallus aquaticus</i> | - | - | - | - | Y | Within 2 km, 2019 | 110 m northwest, pre 2014 |
| Avocet | <i>Recurvirostra avosetta</i> | Y | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Firecrest | <i>Regulus ignicapillus</i> | Y | - | - | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Kittiwake | <i>Rissa tridactyla</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2016 |
| Whinchat | <i>Saxicola rubetra</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Stonechat | <i>Saxicola torquata</i> | Y | - | - | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Woodcock | <i>Scolopax rusticola</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |

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|----------------|---------------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| Eider | <i>Somateria mollissima</i> | | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2019 |
| Arctic skua | <i>Stercorarius parasiticus</i> | | - | Y | - | Y | Within 2 km, 2017 | Within 2 km, 2017 |
| Great skua | <i>Stercorarius skua</i> | | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 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 | Within 2 km, 2019 |
| Common tern | <i>Sterna hirundo</i> | Y | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| 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, 2018 |
| Turtle dove | <i>Streptopelia turtur</i> | - | Y | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Tawny owl | <i>Strix aluco</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, 2019 |
| Ruddy shelduck | <i>Tadorna ferruginea</i> | - | - | Y | - | Y | Within 2 km, 2016 | Within 2 km, pre 2014 |

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|------------------|--------------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| Shelduck | <i>Tadorna tadorna</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Spotted redshank | <i>Tringa erythropus</i> | | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Little grebe | <i>Tachybaptus ruficollis</i> | - | - | Y | - | Y | Within 2 km, 2019 | 110 m northwest, pre 2014 |
| Greenshank | <i>Tringa nebularia</i> | Y | - | Y | - | Y | Within 2 km, 2019 | 110 m northwest, pre 2014 |
| Wood Sandpiper | <i>Tringa glareola</i> | Y | - | Y | - | Y | Within 2 km, 2019 | 110 m northwest, pre 2014 |
| Green sandpiper | <i>Tringa ochropus</i> | Y | - | Y | - | Y | Within 2 km, 2019 | 110 m northwest, pre 2014 |
| Wren | <i>Troglodytes troglodytes</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Redwing | <i>Turdus iliacus</i> | Y | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Song thrush | <i>Turdus philomelos</i> | - | Y | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Fieldfare | <i>Turdus pilaris</i> | Y | - | Y | - | Y | Within 2 km, 2014 | Within 2 km, pre 2014 |
| Ring ouzel | <i>Turdus torquatus</i> | - | Y | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |

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| Mistle thrush | <i>Turdus viscivorus</i> | - | - | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Barn owl | <i>Tyto alba</i> | Y | - | - | - | Y | 100 m SW, 2019 | 100 m southwest, pre 2014 |
| 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, 2018 |
| Lapwing | <i>Vanellus vanellus</i> | - | Y | Y | - | Y | Within 2 km, 2019 | Within 2 km, pre 2014 |
| Higher plants | | | | | | | | |
| Knot grass | <i>Acronicta rumicis</i> | - | Y | Y | Y | Y | 450 m north, 2021 | 135 m southwest, 2016 |
| Divided sedge | <i>Carex divisa</i> | - | Y | Y | - | Y | 1.4 km southeast, 2017 | 1.4 km southeast, 2017 |
| Deptford pink | <i>Dianthus armeria</i> | Y | - | - | - | Y | 1.1 km north, 2019 | 885 m north, 2018 |
| Rush-leaved fescue | <i>Festuca arenaria</i> | - | - | Y | - | Y | 1.2 km north, 2018 | 1.2 km north, 2018 |
| Lizard orchid | <i>Himantoglossum hircinum</i> | Y | - | Y | - | Y | 1.4 km northwest, 2017 | 1.4 km northwest, 2017 |

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| Bee orchid | <i>Ophrys apifera</i> | - | - | Y | - | Y | 180 m southeast, 2022 | 180 m southeast, 2022 |
| Invertebrates | | | | | | | | |
| Adrastus rachifer | <i>Adrastus rachifer</i> | - | - | Y | - | Y | 295 m east, 2016 | 295 m east, 2016 |
| Forester | <i>Adscita statices</i> | - | Y | Y | - | Y | 1.3 km south, 2019 | 1.3 km south, 2019 |
| Brown-spot pinion | <i>Anchoscelis litura</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Beaded chestnut | <i>Agrochola lychnidis</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Green-brindled crescent | <i>Allophytes oxyacanthae</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Ear moth | <i>Amphipoea oculea</i> | - | Y | Y | - | Y | 450 m north, 2016 | 450 m north, 2016 |
| Mouse moth | <i>Amphipyra tragopoginis</i> | - | Y | Y | - | Y | 450 m north, 2021 | 440 m east, 2016 |
| Saltmarsh knot-horn | <i>Ancylosis oblitella</i> | - | - | Y | - | Y | 450 m south, 2017 | 450 m south, 2017 |
| Black mining bee | <i>Andrena pilipes</i> | - | - | Y | - | Y | 100 m northwest, 2021 | 40 m northwest, 2017 |

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| Trimmer's mining bee | <i>Andrena trimmerana</i> | - | - | Y | - | Y | 100 m northwest, 2015 | 100 m northwest, 2015 |
| Large nutmeg | <i>Apamea anceps</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Dusky brocade | <i>Apamea remissa</i> | - | Y | Y | - | Y | 450 m north, 2021 | 220 m east, 2018 |
| Rest harrow | <i>Aplasta ononaria</i> | - | Y | Y | - | Y | 450 m north, 2021 | 40 m northwest, 2016 |
| Deep-brown dart | <i>Aporophyla lutulenta</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Garden tiger | <i>Arctia caja</i> | - | Y | Y | - | Y | 450 m north, 2021 | 135 m southwest, 2016 |
| Centre-barred sallow | <i>Atethmia centrargo</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Large garden bumblebee | <i>Bombus ruderatus</i> | - | Y | Y | - | Y | 180 m west, 2020 | 10 m west, 2019 |
| Minor shoulder-knot | <i>Brachylomia viminalis</i> | - | Y | Y | - | Y | 450 m north, 2021 | 220 m east, 2018 |
| Bulrush veneer | <i>Calamotropha paludella</i> | - | - | Y | - | Y | 450 m south, 2017 | 290 m west, 2015 |
| Toadflax brocade | <i>Calophasia lunula</i> | - | - | Y | - | Y | 450 m south, 2021 | 454 m south, 2021 |

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| Mottled rustic | <i>Caradrina morpheus</i> | - | Y | Y | - | Y | 450 m north, 2021 | 135 m southwest, 2016 |
| Dark crimson underwing | <i>Catocala sponsa</i> | - | Y | Y | - | Y | 450 m north, 2019 | 220 m east, 2019 |
| Four-banded weevil-wasp | <i>Cerceris quadricincta</i> | - | Y | Y | - | Y | 110 m northwest, 2021 | 40 m southeast, 2017 |
| Five-banded weevil-wasp | <i>Cerceris quinquefasciata</i> | - | Y | Y | - | Y | 100 m southeast, 2017 | 100 m southeast, 2017 |
| Streak | <i>Chesias legatella</i> | - | Y | Y | - | Y | 450 m north, 2019 | 450 m north, 2019 |
| Latticed heath | <i>Chiasmia clathrata</i> | - | Y | Y | - | Y | 450 m north, 2021 | 220 m east, 2018 |
| Dusky-lemon swallow | <i>Cirrhia gilvago</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Sallow | <i>Cirrhia icteritia</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Rose plume | <i>Cnaemidophorus</i> | - | - | Y | - | Y | 450 m south, 2016 | 450 m south, 2016 |
| Square-jawed sharp-tail bee | <i>Coelioxys mandibularis</i> | - | - | Y | - | Y | 100 m northwest, 2019 | 100 m southeast, 2019 |

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|-------------------|------------------------------|---------------------------|---------------------------------|-----------------------|-----------------------------|---|--------------------------------------|---------------------------------------|
| Small heath | <i>Coenonympha pamphilus</i> | - | Y | Y | - | Y | 50 m east, 2022 | 50 m east, 2022 |
| Early colletes | <i>Colletes cunicularius</i> | - | - | Y | - | Y | 160 m southeast, 2018 | 160 m southeast, 2018 |
| Sea aster bee | <i>Colletes halophilus</i> | - | Y | Y | - | Y | 30 m north, 2018 | 30 m north, 2018 |
| Goat moth | <i>Cossus cossus</i> | - | Y | Y | - | Y | 450 m north, 2019 | 450 m north, 2019 |
| Small blue | <i>Cupido minimus</i> | - | Y | Y | - | Y | 980 m northeast, 2021 | 100 m east, 2018 |
| Dingy mocha | <i>Cyclophora pendularia</i> | - | Y | Y | - | Y | 450 m north, 2019 | 450 m north, 2019 |
| Oak lutestring | <i>Cymatophorina diluta</i> | - | Y | Y | - | Y | 450 m north, 2019 | 450 m north, 2019 |
| Silver barred | <i>Deltote bankiana</i> | - | - | Y | - | Y | 454 m north, 2019 | 454 m north, 2019 |
| Small square-spot | <i>Diarsia rubi</i> | - | Y | Y | - | Y | 450 m north, 2021 | 220 m north, 2018 |
| Small phoenix | <i>Ecliptopera silaceata</i> | - | Y | Y | - | Y | 450 m north, 2019 | 300 m east, 2015 |

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| Pigmy footman | <i>Eilema pygmaeola</i> | - | - | Y | - | Y | 450 m south, 2017 | 450 m south, 2017 |
| Dusky thorn | <i>Ennomos fuscantaria</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| August thorn | <i>Ennomos quercinaria</i> | - | Y | Y | Y | Y | 450 m north, 2018 | 135 m north, 2016 |
| <i>Enoplops schapha</i> | <i>Enoplops scapha</i> | - | Y | Y | - | Y | 1.8 km north, 2017 | 1.8 km north, 2017 |
| Galium carpet | <i>Epirrhoe galiata</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Autumnal rustic | <i>Eugnorisma glareosa</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Spinach | <i>Eulithis mellinata</i> | - | Y | Y | - | Y | 450 m north, 2019 | 135 m southwest, 2015 |
| Garden dart | <i>Euxoa nigricans</i> | - | Y | Y | - | Y | 450 m north, 2019 | 450 m north, 2019 |
| White-line dart | <i>Euxoa tritici</i> | - | Y | Y | - | Y | 450 m north, 2021 | 290 m east, 2015 |
| Marbled yellow pearl | <i>Evergestis extimalis</i> | - | - | Y | - | Y | 450 m north, 2017 | 450 m north, 2017 |
| Small ranunculus | <i>Hecatera dysodea</i> | - | - | Y | - | Y | 450 m south, 2019 | 450 m south, 2019 |

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| Crescent | <i>Helotropha leucostigma</i> | - | Y | Y | Y | Y | 450 m south, 2021 | 135 m southwest, 2016 |
| Small emerald | <i>Hemistola chrysoprasaria</i> | - | Y | Y | - | Y | 450 m north, 2021 | 220 m east, 2018 |
| Ghost moth | <i>Hepialus humuli</i> | - | Y | Y | Y | Y | 450 m north, 2021 | 220 m east, 2018 |
| Rustic | <i>Hoplodrina blanda</i> | - | Y | Y | - | Y | 450 m north, 2021 | 135 m southwest, 2016 |
| Rosy rustic | <i>Hydraecia micacea</i> | - | Y | Y | - | Y | 450 m north, 2021 | 220 m east, 2018 |
| Twin-spot honey | <i>Lamoria zelleri</i> | - | - | Y | Y | Y | 454 m south, 2017 | 454 m south, 2017 |
| Sharp-collared furrow bee | <i>Lasioglossum malachurum</i> | - | - | Y | Y | - | 100 m northwest, 2019 | 100 m northwest, 2019 |
| Scarce emerald damselfly | <i>Lestes dryas</i> | - | - | Y | - | Y | 1.3 km north, 2024 | 1.3 km north, 2024 |
| Shoulder-striped wainscot | <i>Leucania comma</i> | - | Y | Y | - | Y | 450 m north, 2021 | 220 m east, 2018 |
| Rosy minor | <i>Litolia literosa</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |

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| Stag beetle | <i>Lucanus cervus</i> | Y | - | - | - | Y | 1 km northeast, 2021 | 1 km northeast, 2021 |
| Brindled beauty | <i>Lycia hirtaria</i> | - | Y | Y | - | Y | 450 m south, 2021 | 450 m south, 2021 |
| Gypsy moth | <i>Lymatria dispar</i> | - | Y | Y | - | Y | 450 m south, 2021 | 450 m south, 2021 |
| V-moth | <i>Macaria wauaria</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Ground lackey | <i>Malacosoma castrensis</i> | - | Y | Y | - | Y | 135 m northeast, 2016 | 135 m northeast, 2016 |
| Lackey | <i>Malacosoma neustria</i> | - | Y | Y | Y | Y | 450 m north, 2021 | 135 m southwest, 2015 |
| Dot moth | <i>Melanchra persicariae</i> | - | Y | Y | - | Y | 450 m north, 2021 | 135 m southwest, 2016 |
| Pretty chalk carpet | <i>Melanthia procellata</i> | - | Y | Y | - | Y | 450 m north, 2021 | 220 m east, 2018 |
| Dock streak | <i>Monochroa palustrellus</i> | - | - | Y | Y | - | 135 m northeast, 2015 | 135 m northeast, 2015 |
| Spindle knot-horn | <i>Nephoterix angustella</i> | - | - | Y | - | Y | 450 m south, 2017 | 450 m south, 2017 |

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| Painted nomad bee | <i>Nomada fucata</i> | - | - | Y | - | Y | 140 m east, 2017 | 140 m east, 2017 |
| Large tortoiseshell | <i>Nymphalis polychloros</i> | Y | - | Y | - | Y | 225 m northeast, 2021 | 225 m northeast, 2021 |
| <i>Odacantha melanura</i> | <i>Odacantha melanura</i> | - | - | Y | - | Y | 490 m west, 2016 | 490 m west, 2016 |
| Black-headed mason wasp | <i>Odynerus melanocephalus</i> | - | Y | Y | - | Y | 345 m northeast, 2020 | 345 m northeast, 2020 |
| Rosy-striped knot-horn | <i>Oncocera semirubella</i> | - | - | Y | - | Y | 450 m south, 2017 | 450 m south, 2017 |
| Powdered quaker | <i>Orthosia gracilis</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Painted neb | <i>Oxypteryx wilkella</i> | - | - | Y | - | Y | 450 m south, 2019 | 450 m south, 2019 |
| Waste grass-veneer | <i>Pediasia contaminella</i> | - | - | Y | - | Y | 450 m south, 2017 | 450 m south, 2017 |
| Dark spinach | <i>Pelurga comitata</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Hollyhock seed moth | <i>Pexicopia malvella</i> | - | - | Y | - | Y | 450 m south, 2019 | 450 m south, 2019 |

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| Concolorous | <i>Photedes extrema</i> | - | Y | Y | - | Y | 450 m north, 2019 | 450 m north, 2019 |
| <i>Platycheirus immarginatus</i> | <i>Platycheirus immarginatus</i> | - | - | Y | - | Y | 100 m, SE, 2016 | 100 m, SE, 2016 |
| Mallow groundling | <i>Platyedra subcinerea</i> | - | - | Y | - | Y | 450 m south, 2017 | 450 m south, 2017 |
| Hook-tipped grass-moth | <i>Platytes alpinella</i> | - | - | Y | - | Y | 450 m south, 2017 | 450 m south, 2017 |
| <i>Rhantus frontalis</i> | <i>Rhantus frontalis</i> | - | - | Y | - | Y | 340 m west, 2016 | 340 m west, 2016 |
| Large wainscot | <i>Rhizedra lutosa</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| White-letter hairstreak | <i>Satyrrium w-album</i> | Y | - | - | - | Y | 295 m east, 2022 | 295 m east, 2022 |
| Willow knot-horn | <i>Sciota adelphella</i> | - | - | Y | - | Y | 475 m south, 2017 | 475 m south, 2017 |
| Mullein wave | <i>Scopula marginepunctata</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Shaded broad-bar | <i>Scotopteryx chenopodiata</i> | - | - | Y | - | Y | 450 m north, 2021 | 220 m east, 2018 |
| Bordered gothic | <i>Sideridis reticulata</i> | - | - | Y | - | Y | 440 m east, 2016 | 440 m east, 2016 |

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| <i>Speccafrons halophila</i> | <i>Speccafrons halophila</i> | - | - | Y | - | Y | 160 m, NW, 2016 | 160 m, NW, 2016 |
| Rouch-backed blood bee | <i>Sphecodes scabricollis</i> | - | - | Y | - | Y | 475 m northeast, 2019 | 475 m northeast, 2019 |
| White ermine | <i>Spilosoma lubricipeda</i> | - | Y | Y | - | Y | 450 m north, 2021 | 220 m east, 2018 |
| Buff ermine | <i>Spilosoma lutea</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Long-legged tabby | <i>Synaphe punctalis</i> | - | - | Y | - | Y | 310 m west, 2016 | 310 m west, 2016 |
| Hedge rustic | <i>Tholera cespitis</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Feathered gothic | <i>Tholera decimates</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Blood-vein | <i>Timandra comae</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Cinnabar | <i>Tyria jacobaeae</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |
| Pine-blossom Knot-horn | <i>Vitula biviella</i> | - | - | Y | - | Y | 454 m south, 2016 | 454 m south, 2016 |
| Oak hook-tip | <i>Watsonalla binaria</i> | - | Y | Y | - | Y | 450 m north, 2021 | 450 m north, 2021 |

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| Dark-barred twin-spot | <i>Xanthor ferrugata</i> | - | Y | Y | - | Y | 450 m north, 2019 | 450 m north, 2019 |

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

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