

The Great Grid Upgrade

Sea Link

Sea Link

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Chapter 2 Appendix 3.2.E

Appendix 3.2.E Breeding Bird Survey Report 2024

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Contents

1.	Breeding Bird Survey Report 2024	1
1.1	Introduction	1
1.2	Bird Legislation, Policy and Guidance	3
1.3	Methodology	7
1.4	Results	17
1.5	Evaluation	32

References	47
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Annex 2.E.1 Detailed Survey Data	49
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Tables of Tables

Table 1.1 Birds of Conservation Concern (BoCC) red and amber list criteria.	4
Table 1.2 Evidence used to assign breeding status.	9
Table 1.3 Weather conditions for each survey visit.	11
Table 1.4 Biodiversity importance of ornithological features	14
Table 1.5 Conservation status of recorded notable species and summary of observations	33
Table A.1 Detailed survey data	49

Table of Plates

Plate 1.1 Summary of notable species peak count (inland species)	23
Plate 1.2 Summary of notable species peak count (intertidal species)	24
Plate 1.3 Summary of notable species mean count (inland species)	26
Plate 1.4 Summary of notable species mean count (intertidal species)	27
Plate 1.5 Summary of monthly species counts (inland species)	29
Plate 1.6 Summary of monthly species counts (intertidal species)	30

1. Breeding Bird Survey Report 2024

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 South East 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.
- 1.1.2 The purpose of this document is to:
- Detail the results of the breeding bird surveys of the Kent Onshore Scheme conducted in 2024.
 - Inform the need for any further surveys required and identify potential ecological constraints associated with breeding birds for incorporation into the **Application Document 6.2.3.2 Part 3 Kent Chapter 2 Ecology and Biodiversity** for the Kent Onshore Scheme and the associated **Application Document 6.6 Habitats Regulations Assessment (HRA) Report**.
- 1.1.3 Details of avoidance, mitigation, compensation and enhancement measures relating to breeding birds are not included in this report and are instead reported within **Application Document 6.2.3.2 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.E Kent Breeding Birds 2024**.

Scope

- 1.1.5 The survey areas are shown in **Application Document 6.4.3.2.A.1 Kent Phase 1 Survey Results**. This report aims to confirm the presence of breeding bird territories within the Kent Onshore Scheme Order Limits through transect surveys conducted along the routes indicated in **Application Document 6.4.3.2.E.1 Kent Breeding Bird Transect Routes 2024**. The findings of breeding bird survey work within the Kent Onshore Scheme Order Limits have informed ecological best practice and mitigation as required, in order to ensure that development of the Proposed Project does not adversely affect breeding birds.
- 1.1.6 Proposed permanent above ground infrastructure comprises the Proposed Minster Converter Station and Proposed Substation, and overhead lines to the southwest. The remainder of the Kent Onshore Scheme Order Limits is comprised of proposed

underground cabling and proposed temporary construction compounds. These details were subject to change prior to preparation of the ES in late 2024.

The Kent Onshore Scheme Order Limits comprises four core locations. These areas are also divided into individual 'parcels', which have been referenced within this report and are as follows:

- Pegwell Bay landfall (to the east of Thanet Coastal path) – field parcel 379;
- Eastern landfall route – between the Proposed Minster Converter Station and Minster Substation to the west and landfall area to the east – field parcels 238, 328, 336, 346 and 360. Note that an area of underground trenchless installation will be present between Pegwell Bay and the eastern most construction compound;
- Proposed Minster Converter Station and Substation (fields east of the railway) – field parcels 244 and 238; and
- Overhead Line (OHL) route corridor (southwest of converter station fields to north) – field parcels 232, 233 and 236.

1.1.7 Inland sampling transects were devised (based on land access available at the time) to survey all major habitat types that are potentially to be subject to above ground works; and to, as a minimum, scan all large field expanses from a distance for bird aggregations.

1.1.8 To assist discussion of interpretation of the Survey Area and bird distribution later in this report, a number of key geographical areas are referenced as follows:

- Pegwell Bay landfall (east of Thanet Coastal path) which includes;
 - River Stour and River Stour 'mouth' – located at the southern extent of Pegwell Bay.
 - Thanet Coastal Path Public Right of Way (PRoW), which broadly follows the foreshore.
 - The 'Coastal Lagoon' – located within the centre of the option area and adjacent to the Thanet Coastal Path with Sandwich Road running parallel.
- Eastern landfall route which includes.
 - Ebbsfleet Lane – parallel to the A256 and allows access / views of the arable fields to the north of Stonelees Golf Centre.
- Proposed Minster Converter Station and Substation area which includes:
 - The A256 / Richborough Way, which separates the converter station option area from the remainder of the inland route to the east.
 - Brook Lane, a road access and PRoW through the northern half of this area.
 - Weatherlees Hill Water Treatment Works (the 'Sewage Works'), located to the immediate south of the Converter station option area.
 - Fishing lakes, located in the northern portion of this area.
- Overhead route corridor which includes:
 - River Stour canal. A tributary of the Stour, running broadly west to east through the centre of this area and with a PRoW parallel to its northern bank.

- Railway line (Minster to Sandwich), which separates this overhead route area from the converter station option area.
- Marsh Farm Road, which is the only immediate vehicle access to this area, and which has a water treatment facility at its southern termination.

1.2 Bird Legislation, Policy and Guidance

- 1.2.1 The legislation, policy and guidance detailed within this section has been used to define the 'notable' bird species which are the focus of this report due to their inclusion in relevant legislation, policy or guidance.

Legislation

Conservation of Habitats and Species Regulations 2017 (as amended) / Directive on the Conservation of Wild Birds 2009

- 1.2.2 A number of bird species recorded in the UK (including those that are resident, overwintering and migratory) are protected at a European level under the European Commission (EC) Directive on the Conservation of Wild Birds 2009 (2009/147/EC). The Directive applies to 193 bird species or sub-species, which are:
- in danger of extinction;
 - rare, or have restricted local distribution;
 - vulnerable to specific changes in their habitat; or
 - in need of particular attention for reasons of the specific nature of their habitat.
- 1.2.3 These species are afforded enhanced legal protection and EU member states have a responsibility to maintain the populations of these species at a level that corresponds to their ecological, scientific and cultural requirements (Article 2). This Directive was transposed into English law through the Conservation of Habitats and Species Regulations 2017 (as amended).
- 1.2.4 Species listed on Annex 1 of the Directive are those for which the UK Government is required to take special conservation measures, including the designation of land as Special Protection Areas (SPAs). These sites are automatically included within the Emerald network under the Bern Convention (formerly the Natura 2000 network within the UK); a network of core breeding and resting sites that are protected for rare and threatened species.
- 1.2.5 While the UK is no longer a member of the European Union (EU), EU legislation which applied directly or indirectly to the UK before 11.00 pm on 31 December 2020 has been retained in UK law as a form of domestic legislation known as 'retained EU legislation'.
- 1.2.6 The Secretary of State for the Environment, Food and Rural Affairs and Welsh Ministers have made changes to parts of the Conservation of Habitats and Species Regulations 2017 (referred to as the 2017 Regulations) so that they operate effectively. Most of these changes involve transferring functions from the European Commission to the appropriate authorities in England. All other processes or terms in the 2017 Regulations remain unchanged and existing guidance is still relevant.

Wildlife and Countryside Act 1981 (as amended)

- 1.2.7 All active bird nests, eggs and young are protected from intentional and reckless destruction by the Wildlife and Countryside Act 1981 (as amended).
- 1.2.8 The Act prohibits the intentional killing, injuring or taking of wild birds and, during the breeding season, the taking, damaging or destroying of eggs or nests (whether the nest is in use or being built). In addition to this general protection, certain rare, endangered, declining or vulnerable species are afforded special protection under Schedule 1 of the Act.
- 1.2.9 Bird species listed on Schedule 1 are additionally protected against disturbance while nesting. This means that it is also an offence to disturb any Schedule 1 nesting birds or their young during the breeding season whilst they are occupying a nest site. This includes causing the parent birds or fledglings apparent stress and any other action which may lead to the parents abandoning their nests or young. Natural Environment and Rural Communities Act 2006 (as amended)
- 1.2.10 In addition to the above legislation, 49 bird species are listed as being Species of Principal Importance for conservation in England under Section 41 (S41) of the Natural Environment and Rural Communities (NERC) Act 2006. These species are of material consideration during the planning process.
- 1.2.11 The list of 49 'priority species' comprises those identified as requiring action under the UK Biodiversity Action Plan (UKBAP), which continue to be species of conservation priority under the UK Post-2010 Biodiversity Framework (succeeded the UKBAP in July 2012).

Regional/local planning and guidance

Birds of Conservation Concern (BoCC)

- 1.2.12 The Birds of Conservation Concern (BoCC) Red, Amber and Green lists (Stanbury, et al., 2021) assigns UK species to those categories in accordance with criteria that are based on their population status and stability.
- 1.2.13 Where these species are present at a site, their conservation status should be taken into account in determining the likely impacts of a proposed development.
- 1.2.14 Red status species are those species of highest conservation concern and green status species are those of low or no conservation concern. Amber status species are those species of some conservation concern.
- 1.2.15 The BoCC assigns bird species red and amber status based on a set of criteria that are summarised in the Table 1.1.

Table 1.1 Birds of Conservation Concern (BoCC) red and amber list criteria.

Criteria	BoCC Status Code	Description
Red list	HD	Historical decline in breeding population.

Criteria	BoCC Status Code	Description
	BDp ¹ / BDp ²	Severe breeding population decline over 25 years / longer term.
	BDr ¹ / BDr ²	Severe breeding range decline over 25 years / longer term.
	WDp ¹ / WDp ²	Severe non-breeding population decline over 25 years / longer term.
	WDr ¹	Severe non-breeding range decline over 25 years.
	IUCN	Globally threatened – CR (critically endangered) EN (endangered) VU (vulnerable).
Amber list	BDMp ¹ / BDMp ²	Moderate breeding population decline over 25 years / longer term.
	WDMp ¹ / WDMp ²	Moderate non-breeding population decline over 25 years / longer term.
	BDMr ¹ / BDMr ²	Moderate breeding range decline over 25 years / longer term.
	WDMr ¹	Moderate non-breeding range decline over 25 years.
	ERLOB	Threatened in Europe – CR (critically endangered) EN (endangered) VU (vulnerable).
	HDrec	Historical decline in breeding population in recovery.
	BR / WR	Breeding rarity / non-breeding rarity.
	BL / WL	Breeding localisation / non-breeding localisation.
	BI / WI	Breeding bird of international importance / non-breeding bird of international importance.
Green	N/A	Green list species are not of conservation concern and include all other commonly occurring birds in the UK.
Other	N/A	Non-native species (e.g. Canada goose (<i>Branta canadensis</i>), feral pigeon (<i>Columba livia domestica</i>)) are not afforded Red, Amber or Green list status.

- 1.2.16 Although it does not offer any legal protection, BoCC 5 (Stanbury, et al., 2021) provides guidance on the conservation status of UK bird species. Thus, it can be used to assess the ecological importance of bird populations and the habitats that they rely on, particularly at a local level.
- 1.2.17 These lists confer no legal status. However, they are useful when assessing the significance of predicted impacts and determining the level of mitigation that may be required when birds are to be affected by development.

Kent Local Wildlife Site selection criteria

1.2.18

In Kent an individual Local Wildlife Site (LWS) can be selected for birds if it meets the criteria within Kent LWS Selection Criteria (Kent Wildlife Trust, 2022). These guidelines are used as an informative when assessing of the geographic level of importance of a survey site for birds, especially when determining whether a site falls within Local or County importance parameters (noting that meeting LWS criteria does not automatically result in a site being assigned County level importance). These guidelines state that the criteria for selection of LWS applies to birds as follows:

“Birds

133) A set of criteria has been established by Kent Ornithological Society, as the relevant expert organisation, for the selection of Wildlife Sites on the basis of their bird fauna (which is here taken to mean the naturally occurring populations of wild birds on a site). The criteria are based on established criteria for the selection of Sites of Special Scientific Interest, and on the Kent Red Data Book.

134) The criteria are intended to be applied to areas of habitat which are more-or-less discrete and homogenous. For example, a large block of woodland should not be treated as part of the same site as a large block of farmland. However, an intimately mixed area of small fields, hedges and small woods may be treated as a unit, as may the mix of scrub, swamp, marsh and open water vegetation associated with flood plains or around abandoned quarries.

135) The criteria have been designed to recognise

a) The rarity of certain breeding and wintering bird species;

b) Birds which may be considered vulnerable because their populations are in decline;

c) Birds which are vulnerable because of their colonial nesting habitats;

d) Birds which may be considered vulnerable because their non-breeding populations are concentrated in a small number of sites; and

e) Sites of importance for the presence of a diversity of species.

A site should be selected as a Local Wildlife Site if it can be considered as a single, identifiable unit (as explained above) in terms of its bird fauna and where:

• It is occupied regularly by at least 2.5% of the county population of any one or more bird species, based on the most recent and authoritative data;

OR

• It is occupied regularly as a breeding site by species with a Kent population of 50 or fewer territories;

OR

• It holds ten or more Kent Red Data Book 2 (KRDB2) species in the breeding season;

OR

• It holds three or more Kent Red Data Book 3 (KRDB3) species at the appropriate time of year (normally this should not include a combination of breeding and wintering species);

OR

• *It holds one of the five largest colonies of colonial seabirds (with the exception of herring gull and black-headed gull), grey heron, little egret or sand martin;*

OR

• *It is occupied regularly by 5% or more of the county population of any one or more species in non-breeding seasons, based on the most recent and authoritative data;*

OR

• *It has been recorded as being regularly used in recent years by at least 50 breeding bird species;*

OR

• *It has been recorded as being regularly used in recent years by at least 60 wintering bird species;*

OR

• *It has been recorded as being regularly used in recent years by at least 100 passage bird species."*

1.3 Methodology

Desk Study

- 1.3.1 Results of dedicated biological records data or information from local stakeholders were reviewed as part of this exercise and incorporated into assessment within the ES.
- 1.3.2 A search of the MAGIC website (Department for Environment, Food and Rural Affairs, 2024) was also conducted for any statutory areas designated for birds within 10 km of the site. This was used to review designated site citations for any bird species of particular relevance to the Kent Onshore Scheme Order Limits (i.e. where functional linkage to designated sites could occur).
- 1.3.3 Recent Kent bird reports from the Kent Ornithological Society (KOS) were used to inform local status and distribution data of breeding birds (Kent Ornithological Society, 2023). A survey report by the Sandwich Bird Observatory Trust (Sandwich Bay Bird Observatory Trust, 2020) of the Thanet Coast and Sandwich Bay SPA was also reviewed.
- 1.3.4 Other documents were reviewed to inform evaluation and assessment as follows:
- the Kent Breeding Bird Atlas 2008-13 (Clements, Kent breeding bird atlas: 2008-2013, 2015).
 - British Trust for Ornithology (BTO) Kent breeding bird survey trends for skylark (BTO.org, 2020).
 - Statutory and non-statutory designated site citations within 1 km of the Kent Onshore Scheme Order Limits.
 - Local Wildlife Site (LWS) criteria (Kent Wildlife Trust, 2022).

Field Survey Method

- 1.3.5 The survey focused on recording bird species listed against the European Birds Directive (Annex 1)/Conservation of Habitats and Species Regulations 2017 (as amended); Wildlife and Countryside Act 1981 (as amended) Schedule 1 species; Species of Principal Importance (SPI) of the Natural Environment and Rural Communities (NERC) Act 2006, and; red and amber status species (Stanbury, et al., 2021). Particular attention was taken to recording declining farmland bird species.
- 1.3.6 The survey methodology used, was based on the survey methodologies detailed in (Gilbert, Gibbons, & Evans, 1998) . During the survey all bird species either seen or heard were recorded including any signs of breeding activity. Birds were recorded using the standardised British Trust for Ornithology (BTO) two-letter species codes and standardised behaviour codes (Bibby, Burgess, Hill, & Mustoe, 2000).
- 1.3.7 The area was surveyed on foot as a walked transect so that the surveyors passed within 50 m of all key habitats within the Kent Onshore Scheme Order Limits. Note that due to the extent of the Survey Area and the presence of large expansive arable fields, such habitats were scanned from beyond 50 m from some transect sections.
- 1.3.8 The start of the bird counts were within 30 minutes after sunrise, in accordance with guidance from the Bird Survey & Assessment Steering Group (Bird Survey & Assessment Steering Group, 2023). Six survey visits including a dusk survey to record evening active species were carried out in accordance with this guidance.
- 1.3.9 Survey visits were conducted to coincide with the rising and high tide periods for the Thanet Coast and Sandwich Bay Ramsar/SPA, to record any use of inland areas by birds from the nearby designated sites.
- 1.3.10 Survey visits conducted during the optimal breeding period (late March to early June) allow for the recording of clusters of bird registrations that indicate the presence of a territory. A minimum of two registrations recorded 10 days apart is required to determine a cluster. The extent of a territory is estimated based on the number of registrations and the specific behaviours recorded (Bibby, Burgess, Hill, & Mustoe, 2000). The number of territories can be estimated upon completion of all six survey visits.
- 1.3.11 For late-arriving (to the UK) trans-Saharan migrants, e.g., spotted flycatcher (*Muscicapa striata*), for which fewer potential contacts are possible, only one registration is required to form a territory cluster. A number of species are not territorial and are dealt with appropriately, e.g., Linnet (*Linaria cannabina*), where survey data represents aggregations or loose colonies.
- 1.3.12 Species maps, indicating the estimate of territories present within the Kent Onshore Scheme Order Limits for the most significant species of conservation concern recorded, are provided in:
- **Application Document 6.4.3.2.E.2 Kent Breeding Bird Results March 2024;**
 - **Application Document 6.4.3.2.E.3 Kent Breeding Bird Results April 2024;**
 - **Application Document 6.4.3.2.E.4 Kent Breeding Bird Results May 2024;** and
 - **Application Document 6.4.3.2.E.5 Kent Breeding Bird Results June 2024.**
- 1.3.13 These maps are used to determine key habitats and assess potential impacts of the Kent Onshore Scheme Order Limits upon the bird species present on within the Kent Onshore Scheme Order Limits.

- 1.3.14 Breeding evidence was assigned to four categories: confirmed, probable, possible and non-breeding, using the standard BTO criteria (Balmer, et al., 2013) which are presented in Table 1.2. In some circumstances, the field evidence was unclear and professional judgement has been used, in combination with the field evidence, to assign breeding status.

Table 1.2 Evidence used to assign breeding status.

Non-Breeder	Possible Breeder	Probable Breeder	Confirmed Breeder
Migrant	Observed in suitable habitat	Pair in suitable habitat	Distraction behaviour
Summering	Singing male	Permanent territory	Used nest or eggshells found from this season
Fly-over		Courtship and display	Recently fledged young or downy young
		Visiting probable nest site	Adults entering or leaving nest site, indicating occupied nest
		Agitated behaviour	Adults carrying faecal sac or food for young
		Brood patch on incubating bird	Nest containing eggs
		Nest building or excavating	Nest with young seen or heard

- 1.3.15 While WeBS surveys were not conducted during the breeding season (as the core survey months for these comprise November to February, inclusive, when largest waterbird aggregations occur), Pegwell Bay was subject to CBC survey to record any breeding activity in this location and record waterbirds present during the breeding period.

Overhead line mortality surveys

- 1.3.16 National Grid undertook a corpse search survey of the existing overhead line (OHL) during the 2023-24 winter season and the spring passage/early breeding season (January to April), which partially overlapped with the period of the 2024 breeding bird surveys.
- 1.3.17 The objective of the survey was to record any possible bird mortalities associated with possible collisions with the components of the existing OHL. An adaptation version of the Scottish Natural Heritage (SNH) 2009 bird corpse search methodology (incorporating methods for bats (Scottish Natural Heritage, 2021) and the most recent SNH guidance on bird assessment (Scottish Natural Heritage, 2017)) for wind turbine

mortality monitoring was conducted in areas in direct proximity to existing OHL (power lines) within the Survey Area, south of the River Stour canal.

- 1.3.18 While these surveys do not form part of the scope of this report, any key observations relevant to the 2024 breeding season (especially when not captured by the other survey types) are included as supplementary data and incorporated into the assessment.

Survey personnel, dates and weather

- 1.3.19 The `breeding bird survey visits were led by four suitably experienced ecologists.
- 1.3.20 Surveyor one has over 30 years of ornithological experience, which includes breeding and winter bird surveys. Surveyor two has over 30 years of ornithological experience, which includes breeding and wintering bird surveys including internationally. He additionally has held licences for species protected under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and is a bird ringing permit holder. Surveyor three has over 15 years of ornithological survey and bird identification experience. Surveyor four has over 10 years of ornithological experience, with over four years' experience of ornithological surveys relating to development projects.
- 1.3.21 Bird survey visits were conducted in the months of March to June (inclusive). A total of six visits were undertaken.
- 1.3.22 Survey visits were not conducted during periods of prolonged heavy rain, strong wind (above Beaufort 4) or fog (which may limit or alter bird behaviour or where or surveying may be impractical) wherever possible. Survey visits were undertaken in suitable weather conditions (see Table 1.3 below). Bird surveys are conducted at varying times of day/night, in different weather conditions and take account of the tidal state and crop type (if relevant).

Table 1.3 Weather conditions for each survey visit.

Date	Visit No.	High Tide time	Tide height (m)	Sunrise	Start time	End time	Weather conditions
22/03/2024	1	10:17am	4.4	5:53am	5:45am	10:10am	Start 9 ⁰ C, 7/8 cloud, wind BF 2 W, dry End 16 ⁰ C, 8/8 cloud, wind BF 2 NW, dry
03/04/2024	2	5:55am	3.9	6:24am	6:20am	9:40am	Start 10 ⁰ C, 8/8 cloud, wind BF 3 SW, light rain End 12 ⁰ C, 8/8 cloud, wind BF 1, drizzle
16/04/2024	3	6:09am	3.8	5:56am	5:55am	11:00am	Start 7 ⁰ C, 7/8 cloud, wind BF 2, dry End 10 ⁰ C, 8/8 cloud, wind BF 2, dry
02/05/2024	4	6:46am	4.1	5:24am	5:34am	10:00am	Start 10 ⁰ C, 4/8 cloud, BF 2 NW, dry End 14 ⁰ C, 8/8 cloud, wind BF 2 NW, dry
16/05/2024	5	6:33am	3.6	5:01am	5:00am	10:30am	Start 12 ⁰ C, 8/8 cloud, BF 0-1, dry End 14 ⁰ C, 8/8 cloud, wind BF 0-1, light rain from 06:20 to 08:14
03/06/2024	6	9:21am	4.7	4:41am	4:18am	8:12am	Start 11 ⁰ C, 1/8 cloud, wind BF 2 W, dry End 15 ⁰ C, 8/8 cloud, wind BF 3 NW, dry

Zone of influence/survey area

- 1.3.23 The potential impact(s) of a development are not always limited to the boundaries of the site concerned. A development may also have the potential to result in impacts upon ecologically important sites, habitats or species that are located beyond the site boundaries.
- 1.3.24 The area over which a development may impact ecologically important features is known as the Zone of Influence (ZOI).
- 1.3.25 The ZOI is determined by the source/ type of impact, the potential pathway(s) for that impact and the location and sensitivity of the ecologically important feature(s) beyond the boundary.
- 1.3.26 The potential ZOI of a project in relation to breeding birds is used to determine the extents of the breeding bird survey area.
- 1.3.27 Standardised survey buffers for assessing the impacts of development on bird populations do not exist. However, the selected survey area provides information on the breeding birds within the area immediately surrounding the Kent Onshore Scheme Order Limits and includes areas outside of the Scheme and contiguous with the Kent Onshore Scheme Order Limits, where birds may potentially be adversely affected.
- 1.3.28 This ZOI was used to establish the required extents of the wintering bird survey, which included all suitable habitat within the Kent Onshore Scheme Order Limits, and relevant adjacent habitats (boundary scrub, treelines and hedgerows), also noting any obvious territorial behaviour that encompassed both fields within and outside of the Order Limits.
- 1.3.29 The walked transects through the Survey Area are shown in **Application Document 6.4.3.2.E.1 Kent Breeding Bird Transect Routes 2024** and broadly comprise three routes (each surveyed by a pair of surveyors) which was further sub-divided into according to available access. These routes were as follows:
- Route 1 (covering field parcels 238 and 244). Broadly the eastern landfall route and Proposed Minster Converter Station and Substation area;
 - Route 2 (covering field parcels 232, 328, 336, 346, 379). Broadly the Overhead route corridor, eastern landfall route and Pegwell Bay; and
 - Route 3 (covering field parcels 227, 228, 229, 231, 233, 236 and 237). Comprising the fields south of the River Stour canal.
- 1.3.30 Note that Routes 1 and 2 are analogous to the survey transects covered as part of the 2023 breeding bird surveys. Route 3 was not accessible during 2023 and so represents an additional survey transect in comparison to 2024.
- 1.3.31 The routes were modified for Visit 3 and subsequent visits to cover the Survey Area more efficiently. Routes were therefore modified as shown **Application Document 6.4.3.2.E.1 Kent Breeding Bird Transect Routes 2024**. Survey coverage was overall comparable, but routes scanned large field expanses from distance and therefore small passerines or other species concealed within crop may be under recorded. This is incorporated into the evaluation.
- 1.3.32 Based up the layout shown in **Application Document 6.4.3.2.E.1 Kent Breeding Bird Transect Routes 2024**, the Survey Area included a standardised buffer of broadly 250 m from all permanent infrastructure and a 500 m buffer from the Pegwell Bay landfall (larger buffer applied due to lack of visual barriers on the estuary and the reference to

disturbance distances within the Waterbird Mitigation Toolkit (Cutts, Hemingway, & Spencer, 2013). The 250 m inland buffer included all temporary works and a minimum of 50 m beyond. The underground trenchless installation section through Stonelees Golf Centre was scanned at distance but did not form part of the transect route due to the expected lack of above ground impacts in this area.

Assessment and Evaluation

Assessment criteria

- 1.3.33 The assessment of the ornithological importance of the survey area during the breeding season was made by evaluating any species afforded special statutory protection or those included on one, or more, of the lists of species of conservation interest, as detailed in within Section 4. These lists of 'notable' species comprise:
- Species listed on Annex 1 of the EU Birds Directive or a qualifying feature of potentially functionally linked internationally designated sites;
 - Species listed on Schedule 1 of the WCA, 1981 (as amended);
 - Priority bird species in the UK, as listed on Section 41 of the NERC Act;
 - Species listed as priority species or additional species of interest within Kent (as listed within the Kent Biodiversity Strategy); and
 - Species included in the BoCC Red and Amber Lists (Stanbury, et al., 2021).
- 1.3.34 Additionally, assemblages have been assessed against the criteria for LWS designation within the Kent LWS Selection Criteria (Kent Wildlife Trust, 2022).
- 1.3.35 The population sizes present within the survey area were also compared against the national and county breeding population estimates for certain species. 'National' estimates for breeding birds are published in a paper: '*Population estimates of birds in Great Britain and the United Kingdom*' (Woodward, et al., 2020) and waterbird population estimates (Austin, et al., 2023) from national WeBS reports and winter waterbird population estimates (Frost, et al., 2019). The BTO Bird Atlas 2007-2011 (Balmer, et al., 2013) was also reviewed for species information on a national level and to inform the above assessment criteria.
- 1.3.36 Information on the population status of breeding bird species at a county level was sourced from the latest available issues of the Kent Bird Reports (Kent Ornithological Society, 2020; Kent Ornithological Society, 2023).
- 1.3.37 Information on populations of nationally rare species was sourced from the most recently published paper by the Rare Breeding Birds Panel (RBBP) (Holling & Rare Breeding Bird Panel, 2019).

Importance of bird populations (Valuation)

- 1.3.38 To inform an assessment of the importance of the recorded bird populations, their biodiversity importance has been defined using geographical levels, based on criteria and guidance presented in the Chartered Institute of Ecology and Environmental Management (CIEEM) 'Guidelines for Ecological Impact Assessment in the United Kingdom and Ireland' (CIEEM, 2018) as well as professional judgement. Any significant reliance on professional judgement is identified in this report.

- 1.3.39 These assessment criteria (set out in Table 1.4) have been used in conjunction with an assessment of species status, abundance and diversity to assess the biodiversity importance of the bird populations recorded during the surveys.

Table 1.4 Biodiversity importance of ornithological features

Biodiversity importance	Description and examples of criteria
International or European	Resident or regularly occurring populations of species which may be considered of value at an international or European level (1) where: the loss of these populations would adversely affect the conservation status or distribution of the species at this geographic scale; the population forms a critical part (2) of a wider population at this scale; or the species is at a critical phase (3) of its life cycle at this scale.
UK or National	Areas of habitats with priority species identified in the UK Post-2010 Biodiversity Framework i.e., UK Biodiversity Action Plan (BAP), including those published in accordance with Section 41 of the NERC Act (2006) and those considered to be of principal importance for the conservation of biodiversity. Resident or regularly occurring populations of species which may be considered of importance at a UK or a national level (4) where: • the loss of these populations would adversely affect the conservation status or distribution of the species at this geographic scale; • the population forms a critical part of a wider population at this scale; or • the species is at a critical phase of its life cycle at this scale.
Regional	Populations of species of importance at a regional level (i.e. South-east England). Resident or regularly occurring populations of species which may be considered of importance at a regional level⁵ where: • the loss of these populations would adversely affect the conservation status or distribution of the species at this geographic scale; • the population forms a critical part of a wider population at this scale; or • the species is at a critical phase of its life cycle at this scale.
County	Populations of species of importance at a County (i.e. Kent) level or District (e.g. Thanet).

Biodiversity importance	Description and examples of criteria
	Resident or regularly occurring populations of species which may be considered of importance at a County (or District) (6) level where: - the loss of these populations would adversely affect the conservation status or distribution of the species at this geographic scale; - the population forms a critical part of a wider population at this scale; or, - the species is at a critical phase of its life cycle at this scale.
Local	Species populations of importance in a local (i.e. within ~ 2 km of the site) context. Populations and, or communities of species considered to appreciably enrich the habitat resource within the local context (such as veteran trees), including features of importance for migration, dispersal or genetic exchange.
Negligible (Site)	Habitats and associated species that is of importance in the context of the site only. Populations of common and widespread species
1 Such species include those listed within the Directive 2009/147/EC on the Conservation of Wild Birds (i.e. EC Birds Directive) (codified version of Council Directive 79/409/EEC as amended) or animal or plant species listed within Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Flora and Fauna (i.e. Habitats Directive). 2 Such populations include sub-populations that are essential to maintenance of metapopulation dynamics, e.g. critical emigration and, or immigration links between otherwise discrete populations. 3 Seasonal activity or behaviour upon which survival or reproduction depends. 4 Species which may be considered at the UK or national level mean: birds, other animals and plants which receive legal protection on the basis of their conservation interest (those listed within the Wildlife and Countryside Act 1981 (as amended) Schedule 1, 5 and 8); species listed for their principal importance for biodiversity (in accordance with the Natural Environment and Communities Act 2006 Section 41 England), priority species listed within the UK Post 2010 Biodiversity Framework (i.e. UK Biodiversity Action Plan (UKBAP)), or species listed within the Red Data Book. 5 Such species include those listed in the appropriate Natural Character Area description. 6 Such species include those at county level (i.e. Kent) including unitary authority area i.e. District level (i.e. South-east England); as listed on the LBAPs; and listed as a county designated site. *As well as assigning importance there is also a need to identify all legally protected species that could be affected by the proposed scheme in order that measures can be taken to ensure that adherence to the relevant legislation is observed. This may include the adoption of mitigation and appropriate licensing which are acceptable to Natural England.	

- 1.3.40 Only ecological features within the site and/or ZOI that are assessed as being of importance at a local level or above have been taken forward for future assessment within the Ecological Impact Assessment (EclA). Those valued at below this level of importance, for example at the ZOI level, have been scoped out of the assessment process.
- 1.3.41 A summary of the potential impacts of the upon important bird species, has not been included as this will be discussed in detail within a future Environmental Statement (ES).

Limitations

- 1.3.42 An ecological survey represents a 'snapshot' in time of the ecological condition of a site. The extent and quality of habitats present, and their suitability for protected, priority or otherwise notable species, can change substantially throughout both the course of a year and between years. However, any seasonal limitations to the appraisal are clearly identified in this report, and the 'Lifespan of this appraisal' section of this report at least partially addresses the potential for changes between years. Therefore, this standard limitation is addressed as far as is reasonably possible.
- 1.3.43 The aim of a desk study is to help characterise the baseline context of the site and provide valuable background information that would not be captured by a single site survey alone. Information obtained during a desk study was dependent upon people and organisations having made and submitted records for the area of interest. As such, a lack of records for a particular habitat 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.
- 1.3.44 Recorded bird numbers on a single survey visit are the sum of bird registrations including estimations of flocks. As such, counts do not always represent exact 'to the nearest bird' figures due to the inherent issues with estimating large bird numbers, but instead provide a representation of the magnitude of bird numbers present, which can be used to review overall trends through peaks and mean values.
- 1.3.45 Any potential effects of 'double counting' within the sum of bird registrations have been addressed as far as reasonably possible both by surveyor professional judgement in the field and when analysing count data.
- 1.3.46 During initial surveys (visits 1 and 2), three pairs of surveyors were used during each visit, this was reduced to two pairs during visits 4 to 6. While all survey areas were still covered during the later visits, the transects were adjusted and reduced to enable the Survey Area to be covered efficiently (some large field expanses were viewed from the field boundaries). Therefore, the recorded bird numbers for later visits is likely to be reduced slightly for passerines, other species concealed within crop and cryptic species, this has been taken into account within the evaluation.
- 1.3.47 No access to the northeast parcels 336 and parcel 326 (north of Stonelees Golf Course) was available during the 02 May 2024 visit.
- 1.3.48 The winter 2023/2024 period was noted to be subject to exceptional levels of rainfall ('Southern England was particularly wet with 153% of the 1991-2020 average rainfall'), resulting in the Survey Area being subject to extensive flooding and containing extensive levels of standing water. Such conditions were not present during previous survey seasons (i.e. winter 2022/2023) as observed during previous wintering bird

surveys. As a result the large number of waterbirds recorded during early 2024 (primarily with flooded arable areas south of the River Stour canal and also the arable fields east of the railway line in parcel 244) may not be representative of more 'usual' years (though noting such flooding may become more frequent in future due to climate change).

- 1.3.49 On a minority of occasions, traffic noise from an adjacent major road (the A526) made it difficult to hear calling birds in habitats directly adjacent to this road. However, any resultant impacts on bird detectability were relatively minor and are therefore not regarded as a significant limitation to the survey.
- 1.3.50 To control for time-of-day effects, the survey route was reversed or altered on each visit.
- 1.3.51 Territory mapping for wood pigeon and wren has not been carried out due to these two notable and nationally widespread species being recorded in large numbers and having some of the largest population estimates in Great Britain (Woodward, et al., 2020). These species have instead been evaluated through peak counts, breeding distribution and breeding evidence only.
- 1.3.52 Territory cluster polygons should be treated as indicative and are provided to represent number of likely territories rather than exact territory size and shape. Territory cluster polygons are a product of GIS recording, surveyor judgement in reviewing species activity and location, application of polygon 'rounding' in GIS software and professional judgement based on review of survey data for multiple dates.

Lifespan of the Appraisal

- 1.3.53 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 two years (CIEEM, 2019). After this date, update surveys may be required and advice should be sought from an appropriately qualified ecologist to determine survey scope and methods.

1.4 Results

Desk Study

Designated sites context

- 1.4.1 A number of international designations of breeding and passage ornithological interest are present within 10 km of the Site, as follows:
- Thanet Coast and Sandwich Bay SPA and Thanet Coast and Sandwich Bay Ramsar (both within the Kent Onshore Scheme Order Limits).
 - Stodmarsh SPA and Stodmarsh Ramsar (approximately 8 km west of the Kent Onshore Scheme Order Limits).
- 1.4.2 The relevant breeding and passage ornithological qualifying features and interest for these internationally designated sites are summarised below, noting that these remain the same as per the **Application Document 6.3.3.2.E Appendix 3.2.E Breeding Bird Survey Report 2024**.

Thanet Coast and Sandwich Bay SPA

- 1.4.3 The SPA qualifies under Article 4.1 of the Directive (2009/147/EC) as it is used regularly by the following species listed in Annex I during the breeding season:
- 'During the breeding season the area regularly supports: little tern (*Sterna albifrons*) (Eastern Atlantic - breeding): 0.3% of the GB breeding population 5 year mean, 1992-1996.'
- 1.4.4 Note also the SPA supports the following in winter (relevant as may be recorded during the early months of the breeding season):
- The area regularly supports: golden plover (*Pluvialis apricaria*) 0.2% of the GB population (5 year peak mean 1991/92-1995/96.....411 individuals).'
- 1.4.5 The SPA qualifies under Article 4.2 of the Directive (2009/147/EC) as it is used regularly by the following species listed in Annex II:
- 'Over winter the area regularly supports: ruddy turnstone (*Arenaria interpres*) 1.4% of the population (5 year peak mean 1991/92-1995/96.....940 individuals).'

Thanet Coast and Sandwich Bay Ramsar

- 1.4.6 Note that the Thanet Coast and Sandwich Bay Ramsar is not designated for breeding birds but the qualifying and noteworthy species are provided below.
- 1.4.7 The Ramsar qualifies under Ramsar criterion 6 – (species/populations occurring at levels of international importance) because it regularly supports:
- 'Species with peak counts in winter: ruddy turnstone, 1007 individuals, representing an average of 1% of the population (5 year peak mean 1998/9-2002/3).'
- 1.4.8 A number of other species are classed as 'noteworthy fauna' but are not qualifying species. Relevant bird species occurring at levels of national importance:
- 'Species with peak counts in spring/autumn:
- Ringed plover, (*Charadrius hiaticula*), Europe/Northwest Africa 649 individuals, representing an average of 2% of the GB population (5 year peak mean 1998/9-2002/3)
 - Common greenshank, (*Tringa nebularia*), 35 individuals, representing an average of 5.8% of the GB population (5 year peak mean 1998/9-2002/3)
 - Species with peak counts in winter:
 - Red-throated diver, (*Gavia stellata*), NW Europe 57 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3).
 - Great crested grebe, (*Podiceps cristatus cristatus*), NW Europe. 218 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3).
 - Sanderling (*Calidris alba*), Eastern Atlantic.598 individuals, representing an average of 2.9% of the GB population.'

Stodmarsh SPA

- 1.4.9 The SPA qualifies under Article 4.2 of the Directive (2009/147/EC) as it is used regularly by the following species listed in Annex I during the breeding season:
- “During the breeding season the area regularly supports: Gadwall (*Anas strepera*) (North-western Europe), 0.8% of the population in Great Britain, 5 year mean, 1988-1992.”
 - An internationally important assemblage of breeding and wintering waterbirds with shoveler (*Spatula clypeata*), mallard (*Anas platyrhynchos*), wigeon (*Mareca penelope*), pochard (*Aythya ferina*), tufted duck (*Aythya fuligula*), bittern (*Botaurus stellaris*), hen harrier (*Circus cyaneus*), snipe (*Gallinago gallinago*), water rail (*Rallus aquaticus*) and lapwing (*Vanellus vanellus*) referenced within the citation assemblage (though all species apart from gadwall listed for wintering only).

Stodmarsh Ramsar

- 1.4.10 The Ramsar qualifies under Ramsar criterion 2 – ‘Wetland should be considered internationally important if it supports vulnerable, endangered, or critically endangered species or threatened ecological communities, because it regularly supports the following breeding/passage qualifying species/populations’ due to the following :
- ‘Species regularly supported during the breeding season: Gadwall, NW Europe, 6 pairs, representing an average of 1% of the GB population (1988-92).
 - ‘Species with peak counts in spring/autumn: Gadwall, 267 individuals, representing an average of 1.5% of the GB population (5 year peak mean 1998/9-2002/3).’

Other statutory and non-designated sites

- 1.4.11 A review of other statutory and non-designated sites within 2 km and which are designated at least partly for ornithological interest found that Sandwich Bay and Hacklinge Marshes SSSI is located within the Survey Area (overlapping with the Thanet Coast and Sandwich Bay SPA and Ramsar and also lying south of the proposed Converter Station and proposed Substation).
- 1.4.12 The Sandwich Bay and Hacklinge Marshes SSSI citation describes the SSSI ornithological interest as follows:
- ‘The ornithological interest of Sandwich Bay and Hacklinge Marshes is centred on the large numbers of waders and wildfowl which use the area in winter and during the Spring and Autumn migrations. Dunlin (*Calidris alpina*) is usually the most common wader present, found particularly on the mudflats where the rich invertebrate fauna also attracts a wide range of other common species such as oystercatcher (*Haematopus ostralegus*), curlew (*Numenius arquata*), and redshank (*Tringa totanus*). Grey plover (*Pluvialis squatarola*) and sanderling both overwinter in nationally important numbers, whilst ringed plover also occurs in nationally important numbers during migration. Wildfowl that occur on the site include mallard, shelduck (*Tadorna tadorna*) and occasionally brent goose (*Branta bernicla*). Many of the birds use more than one habitat, some for example feed on the mudflats at low tide and then move up to roost on the saltmarsh or grazing marsh. Breeding birds include ringed plover, oystercatcher and little tern, a species specially protected by law and listed on Schedule 1 of the Wildlife and Countryside Act 1981. Inland areas are also of interest supporting two nationally rare species of breeding birds.’

- 1.4.13 Note that the ornithological features listed for this SSSI in the SSSI detail available at naturalengland.org.uk/Site. Details are as follows
- Aggregations of non-breeding birds - Golden plover;
 - Aggregations of non-breeding birds - Grey plover;
 - Aggregations of non-breeding birds - Ringed plover;
 - Aggregations of non-breeding birds - Sanderling; and
 - Assemblages of breeding birds - Lowland open waters and their margins.
- 1.4.14 The area of SSSI south of the proposed Converter Station is of importance for its grassland interest but also supports a population of breeding birds. A heronry is known to exist south of the Order Limits. A review of other statutory and non-designated sites within 2 km found that other designated sites were designated primarily for their habitats with no detailed or specific ornithological reasons for designation provided.
- 1.4.15 As a result, where species assemblages recorded during survey may be relevant to connected designated site habitats, these are reviewed but focus is made upon the internationally designated sites listed above.

Field Survey

- 1.4.16 The results for the surveys are described below, both in the context of the combined results for all surveys and then in the context of the individual survey types.
- 1.4.17 A total of 109 bird species were recorded within the Survey Area.
- 1.4.18 Of these, five species were seen only flying over of the Survey Area and making no direct use of it as follows:
- Cattle egret (*Bubulcus ibis*);
 - Ruff (*Calidris pugnax*);
 - Fieldfare (*Turdus pilaris*);
 - House martin (*Delichon urbicum*); and
 - Swift (*Apus apus*).
- 1.4.19 Therefore, 104 species were recorded directly using the Survey Area.
- 1.4.20 Territory clusters (based on registrations across multiple dates) of at least 30 species were confirmed with a further 54 species were considered to be probable or possible breeders within the survey area, resulting in a breeding bird assemblage of 84 species. Records relating to the remaining species were of non-breeding species.
- 1.4.21 Distribution and territory maps are listed in Section 1.2. A summary of the species recorded, along with their respective peak and mean counts from the survey visits (for the intertidal and inland counts), is provided within **Annex 2.E.1**.
- 1.4.22 The overall peak reflects the highest count on any one individual survey visit but does also include incidental observations from other survey types (i.e. OHL corpse searches).
- 1.4.23 Species are shown in alphabetic order (rather than taxonomic) to help achieve consistency when manipulating results within a database and to assist 'lay' readers.

- 1.4.24 Note that the intertidal results are not directly comparable to previously conducted winter WeBS surveys as a smaller survey was used, focused on the area occupied by a more defined development layout and on breeding evidence, and a full tidal count was not undertaken. However, the results do give an insight into the bird activity within the intertidal Survey Area and the differences in numbers and distribution between the winter and breeding seasons.

Peak count and mean count summary

- 1.4.25 The overall peak and mean count for all recorded notable species are provided below, to show the most commonly recorded species and to show peak and means for comparison within the Evaluation section, to help assess the relative importance of the Survey Area for the various recorded notable bird species.
- 1.4.26 Note that for inland graphs several nationally and county abundant notable species have been excluded to avoid distorting graphs in comparison to less common species, to enable trends of other species to be seen more clearly. Excluded species include moorhen (*Gallinula chloropus*), common gull species (black-headed (*Chroicocephalus ridibundus*), herring (*Larus argentatus*), lesser-black backed (*Larus fuscus*), great black-backed (*Larus marinus*) and common (*Larus canus*)), common corvids (rook (*Corvus frugilegus*)), woodpigeon (*Columba palumbus*), dunnock (*Prunella modularis*), wren (*Troglodytes troglodytes*) and whitethroat (*Sylvia communis*). Species only recorded incidentally during other survey types are also excluded.
- 1.4.27 The full data for species excluded from graphs can be seen in **Annex 2.E.1** and is discussed in results (and evaluation) where relevant.

Peak counts for notable species

- 1.4.28 The peak counts for notable species are shown as two separate graphs to aid interpretation. As intertidal aggregations are often larger than the inland numbers, these figures have been split out to allow inland counts to be seen more clearly.
- 1.4.29 Plate 1.1 shows the peak counts of species that were primarily recorded inland, as these numbers are most relevant to breeding populations and inland Survey Area use.
- 1.4.30 Plate 1.2 shows the peak counts of waterbird species that were primarily recorded within the intertidal areas. These large aggregations include aggregations of waterbirds are either non-breeding or likely to breed outside of the tidal area. This graph shows numbers recorded within or adjacent to the intertidal area only.
- 1.4.31 Some species occur on both graphs (primarily gulls) if they regularly occurred in both locations.
- 1.4.32 The highest inland peaks recorded are attributable to black-headed gull and woodpigeon. Black-headed gulls were recorded consistently inland in large numbers from March to May with numbers then reducing across the remainder of the survey period. Woodpigeon were recorded in a peak of over 300 during March (potentially as late wintering flocks) but with numbers much reduced (between nine and 34) on subsequent visits.
- 1.4.33 Peak counts of shelduck, herring gull, mute swan (*Cygnus olor*) and meadow pipit (*Anthus pratensis*) are notably large due to recorded flocks. The large peak counts of Cetti's warbler (*Cettia cetti*), reed bunting (*Emberiza schoeniclus*) and skylark (*Alauda arvensis*) are also notable as attributed mainly to individual birds (rather than aggregations) scattered throughout the Survey Area.

- 1.4.34 Of the rarer species recorded, peak counts of green sandpiper (*Tringa ochropus*) ruff, nightingale (*Luscinia megarhynchos*), Mediterranean gull (*Ichthyaeetus melanocephalus*), water pipit (*Anthus spinoletta*), cuckoo (*Cuculus canorus*) and corn bunting (*Emberiza calandra*) are notable for either being attributable to birds spread across the Survey Area or small groups, resulting in a relatively large peak counts for these generally less abundant (national and county) species.
- 1.4.35 Intertidal counts are largely attributable to oystercatcher and great black-backed gull, with sandwich tern (*Thalasseus sandvicensis*) and curlew also having peak counts approaching 100. The count of shelduck (peak of 38) and avocet (*Recurvirostra avosetta*) (peak count of three but a rarer species) is notable, but all other waterbird species were recorded in numbers well below previously recorded wintering peaks and are generally attributable to small groups. Whimbrel (*Numenius phaeopus*) and Mediterranean gull are other rarer species recorded within the intertidal area.
- 1.4.36 Note that overall peak counts of some waterbird species such as mute swan, shelduck, gadwall and black-headed gull (shown in **Annex 2.E.1**) are a result of the large aggregations recorded in flooded fields south of the River Stour canal rather than the intertidal areas.

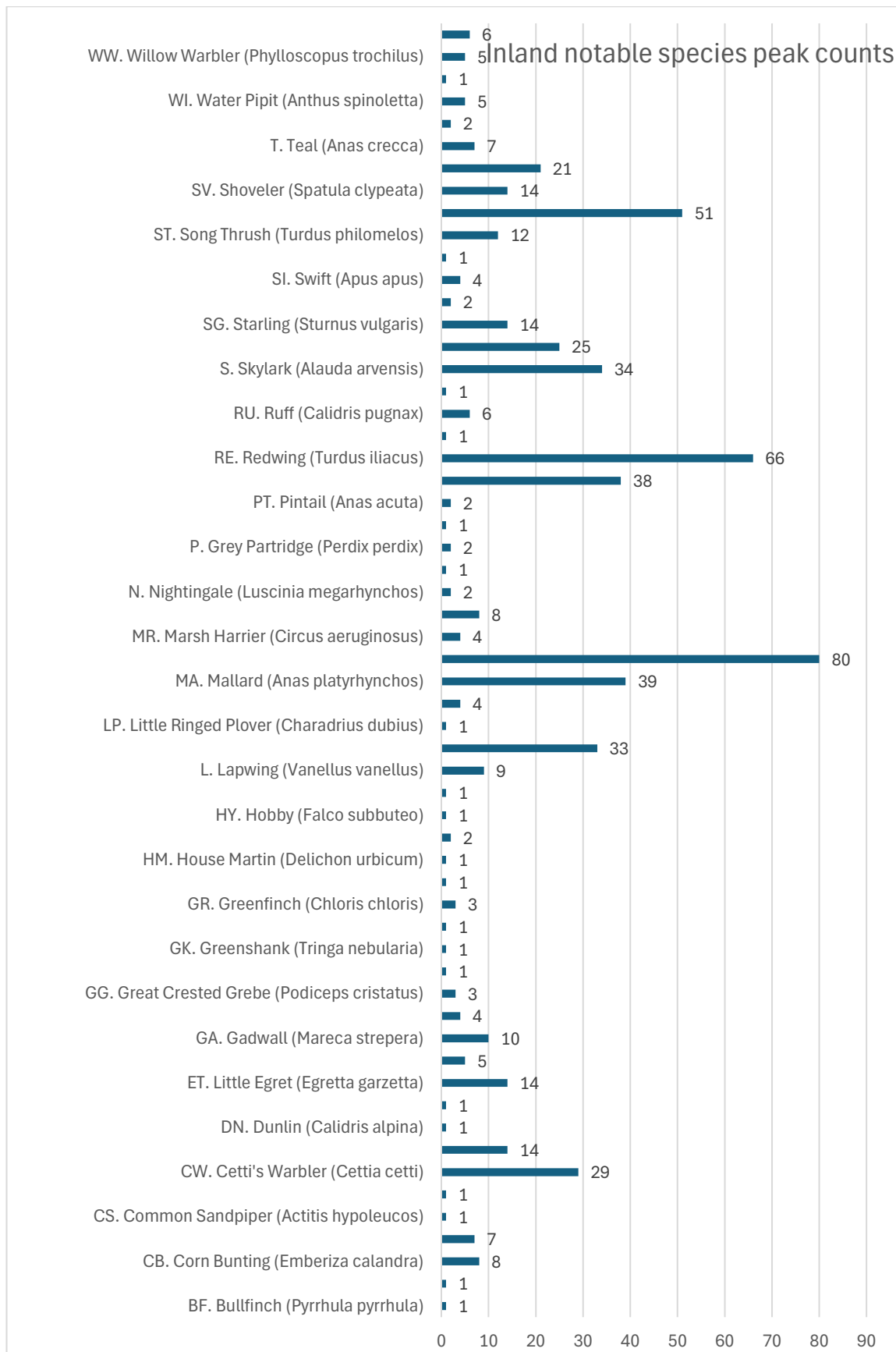


Plate 1.1 Summary of notable species peak count (inland species)

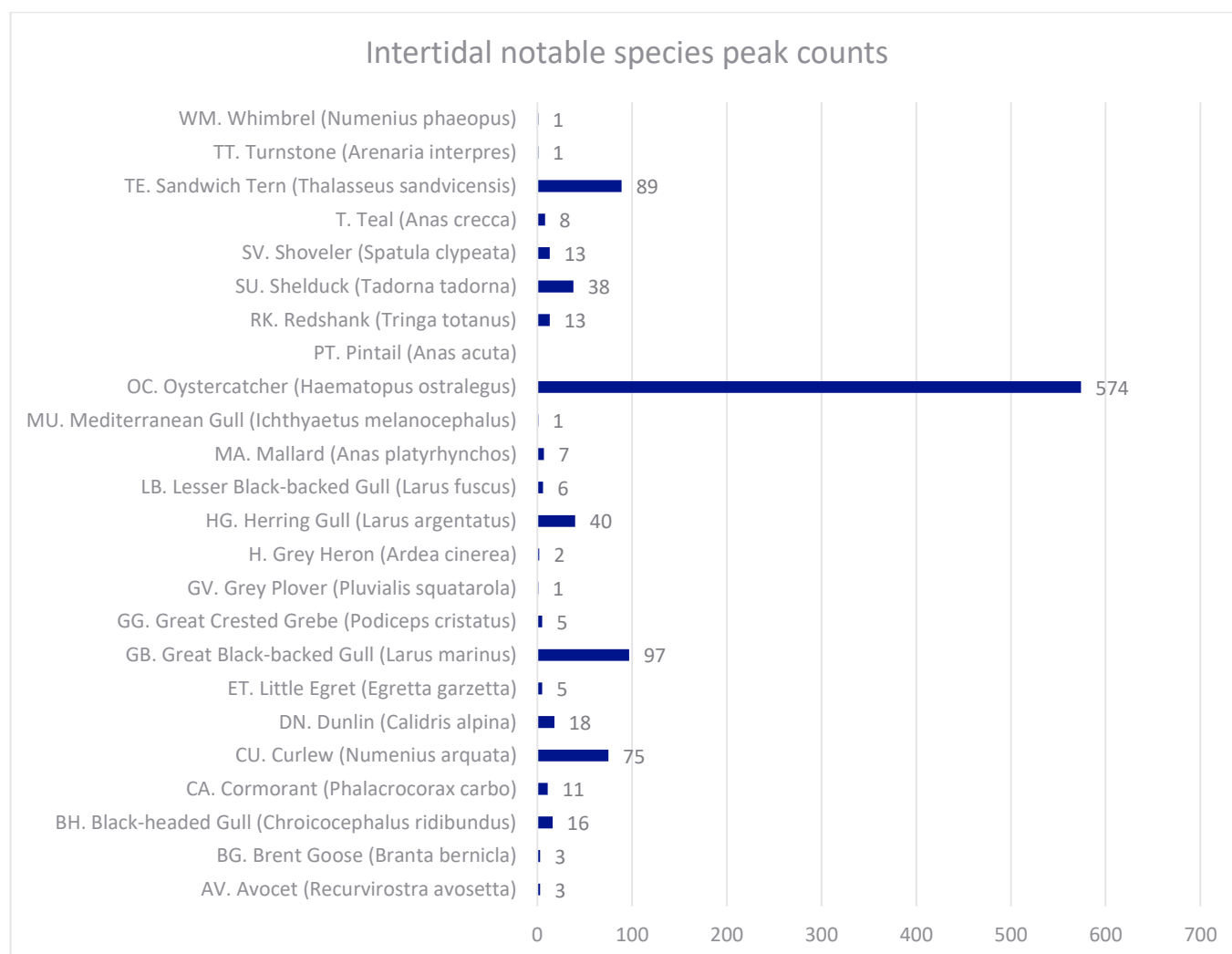


Plate 1.2 Summary of notable species peak count (intertidal species)

Mean counts for notable species

- 1.4.37 As for peak counts the mean counts for notable species are shown as two separate graphs to aid interpretation.
- 1.4.38 Plate 1.3 shows the inland mean counts and Plate 1.4 shows the intertidal species. Where a mean count is shown as 0, this represents a species recorded during vantage point survey only (i.e., not on a CBC visit and therefore not calculated into the mean).
- 1.4.39 Inland mean counts follow an overall similar pattern as for peak counts, with some notable exceptions.
- 1.4.40 The mean of shelduck is proportionality high in comparison to its substantial peak count, indicating the repeat recording of aggregations in the inland area. Mallard, shelduck, herring gull, skylark, wren, Cetti's warbler, linnet (*Linaria cannabina*) and reed bunting have similarly high means (as a proportion of the peak count) indicating again recording of consistent number approaching the peak count during multiple visits.
- 1.4.41 An opposite trend of mean counts being proportionately and visibly lower in comparison to the peak counts can be seen for several species. Redwing (*Turdus iliacus*) and meadow pipit are particularly noticeable, due to their high peak count.

- 1.4.42 The high number of species recorded includes species with low or single counts recorded on one or few visits, these birds have a correspondingly low mean count,
- 1.4.43 Intertidal mean count trends are broadly similar to the peak count trends. Therefore, these peak counts represent the majority of records for a particular species during the survey period.
- 1.4.44 This also shows that species are generally recorded inconsistently (i.e. often a lack of consistent presence of that species, or counts of the species on other visits are often substantially lower than the peak count visit).

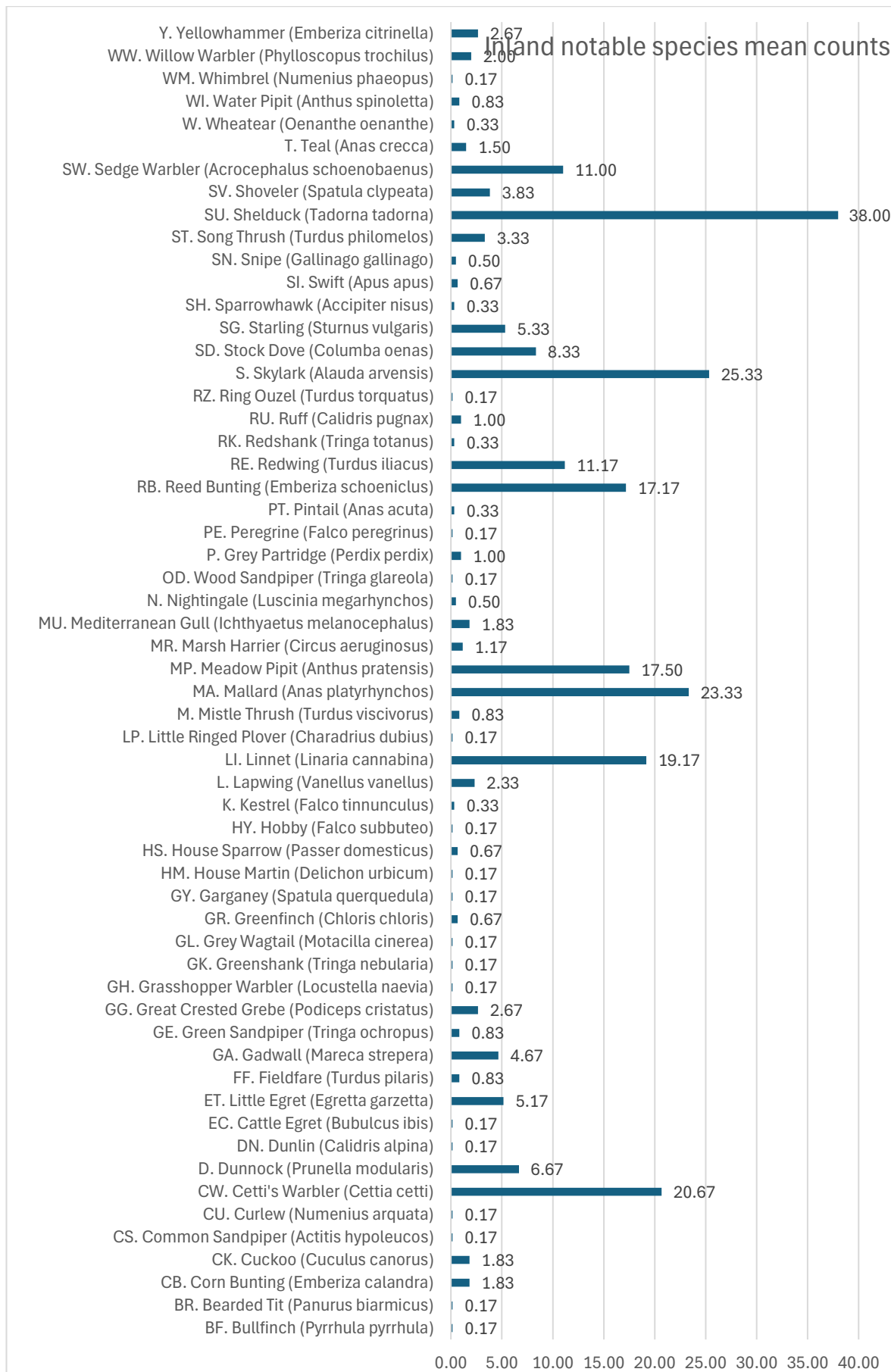


Plate 1.3 Summary of notable species mean count (inland species)

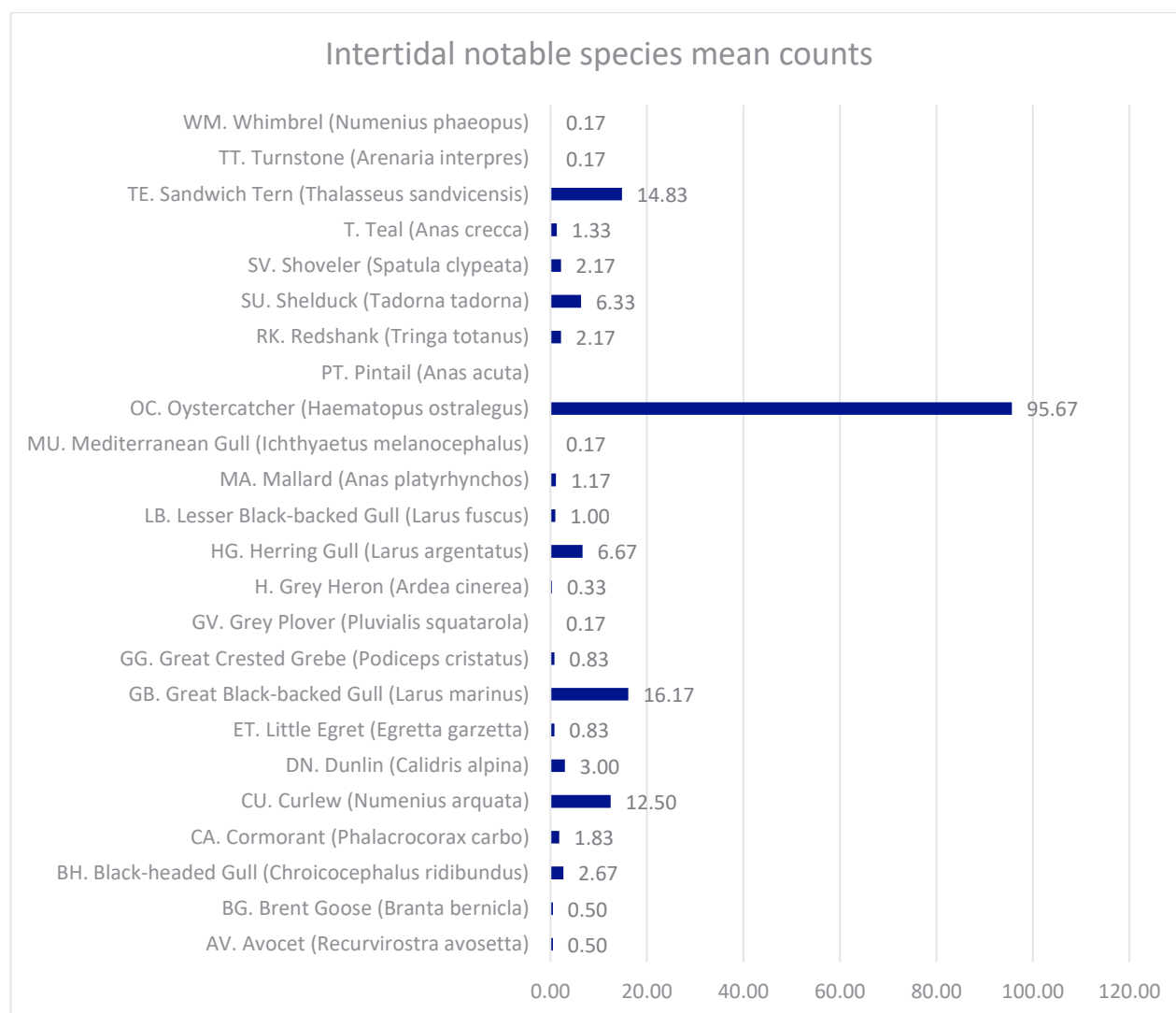


Plate 1.4 Summary of notable species mean count (intertidal species)

Temporal (monthly) summary

Inland

- 1.4.45 The monthly counts for each species are shown in Plate 1.5 and Plate 1.6 (intertidal).
- 1.4.46 As for peak and mean count graphs, inland graphs note again that several nationally and county abundant notable species have been excluded to avoid distorting graphs in comparison to less common species, to enable trends of other species to be seen more clearly. Data labels have been excluded from Plate 1.5, due to the number of data bars present, to enable trend visibility.
- 1.4.47 The large monthly peaks for the most numerous species (woodpigeon and black-headed gull) are attributable in the case of woodpigeon to an early season high peak count while black-headed gull is consistently recorded in large numbers on multiple visits.
- 1.4.48 Species with lower peak counts but generally consistently recorded during survey visits include shelduck, mallard, herring gull, skylark, whitethroat, Cetti's warbler, sedge warbler (*Acrocephalus schoenobaenus*), wren, linnet and reed bunting.

- 1.4.49 Larger monthly peaks in comparison to other visits occur for inland species including:
- Meadow pipit, peak count in early April;
 - Redwing in March;
 - Reed bunting in March;
 - Song thrush (*Turdus philomelos*) in March;
 - Corn bunting in mid-May; and
 - Sedge warbler in mid-May and early June.
- 1.4.50 Many species were recorded during only one or a few visits, these are discussed in the *Evaluation* section.
- 1.4.51 Within the intertidal area, the species recorded appeared to follow a general trend of overall numbers reducing from March (end of winter season), with generally lower numbers recorded across April to June. Key examples are the large counts of curlew, oystercatcher, herring gull and great black-backed gull in March, noting also that these make up over 75% of all individual birds recorded that month and (with the exception of sandwich tern) the majority of all intertidal waterbirds recorded.
- 1.4.52 Notably, the peak count of oystercatcher that occurred at the end of June - when an aggregation of almost 200 birds was recorded, and the large flock (89) of sandwich tern recorded in April, are the two clearest exceptions to the decreasing numbers throughout the season.
- 1.4.53 In contrast to observations during previous Winter seasons, aggregations of some waterbirds were recorded inland, with some species only (or primarily) being recorded in this location, such as snipe, gadwall, garganey (*Spatula querquedula*), shoveler, black-headed gull and lapwing. Other species such as shelduck, teal (*Anas crecca*), mallard, little egret (*Egretta garzetta*) and herring gull were recorded frequently both within inland and intertidal areas.

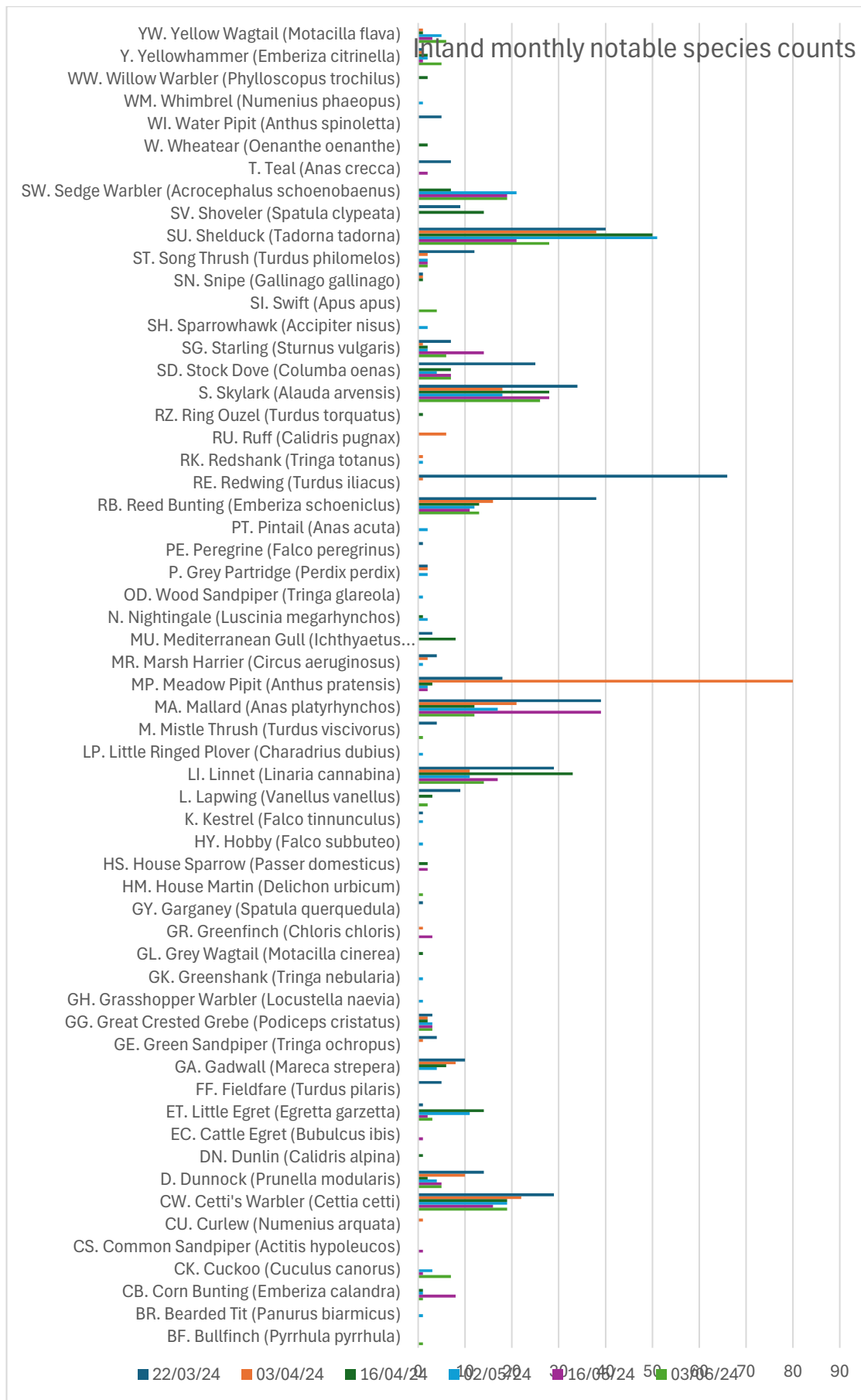


Plate 1.5 Summary of monthly species counts (inland species)

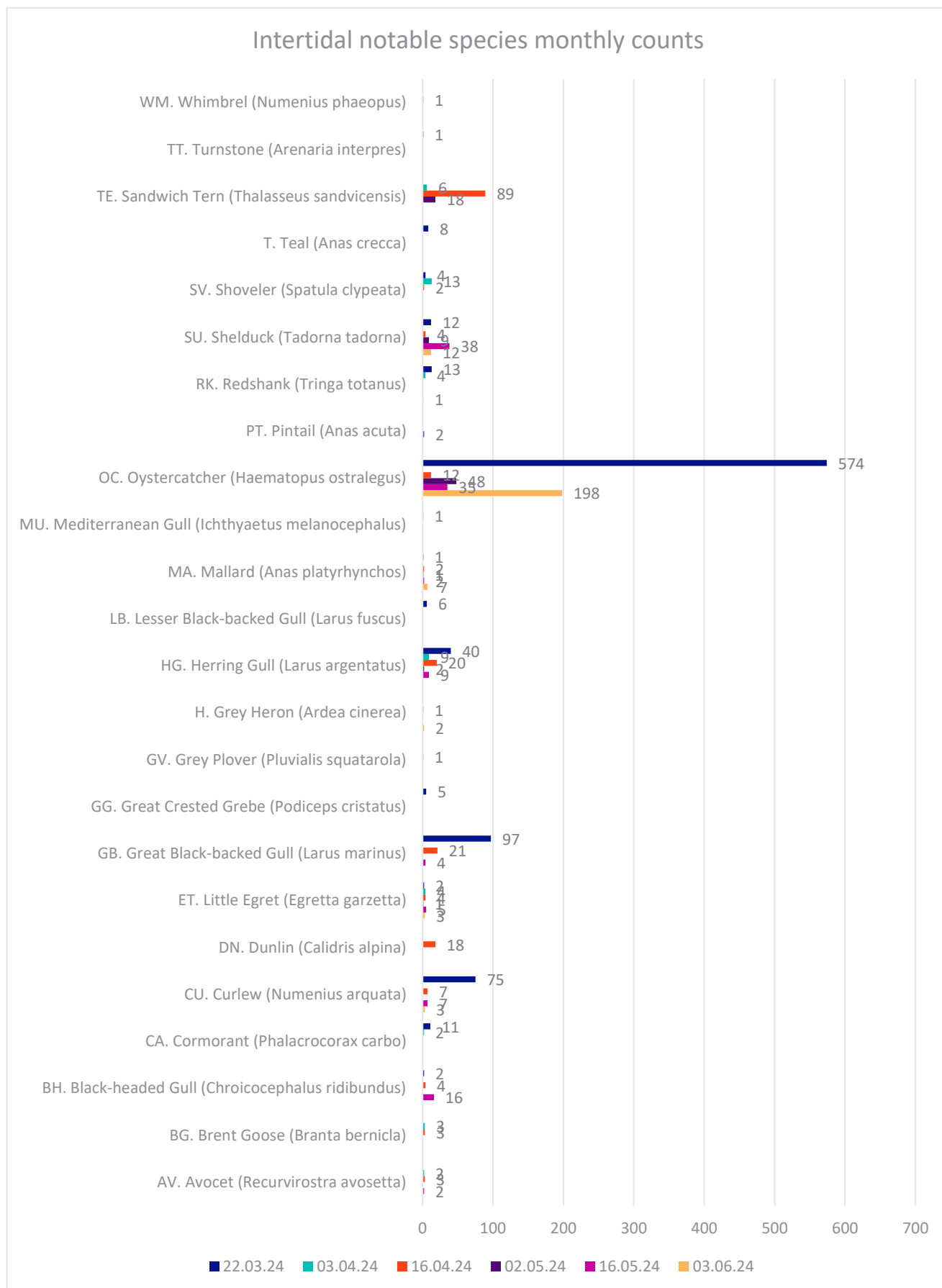


Plate 1.6 Summary of monthly species counts (intertidal species)

Distribution

Inland

- 1.4.54 Large waterbird aggregations were present in arable fields south of River Stour Canal. Fields within Parcel 244 were also found to support waterbirds, though in smaller aggregations than south of the River Stour canal.
- 1.4.55 These areas supported a range of waterbirds including aggregations of shelduck, mute swan, mallard, black-headed gull, herring gull and smaller numbers of teal, pintail (*Anas acuta*) and other waders such as redshank. Rarer species and passage migrants including garganey, ruff, green sandpiper, wood sandpiper (*Tringa glareola*), spotted redshank (*Tringa erythropus*), water pipit and merlin (*Falco columbarius*).
- 1.4.56 Additional coverage of marshy areas and reedbeds south of the River Stour canal also resulted in the occasional recording of cryptic reedbed and marsh species including snipe, jack snipe (*Lymnocyptes minimus*) and water rail.
- 1.4.57 Arable fields supported reasonable numbers of species that utilise central areas of expansive crop (i.e. skylark) though the distribution of yellow wagtail (*Motacilla flava*) (which also uses central arable field areas) was limited by comparison. Grey partridge (*Perdix perdix*) was recorded but only in the south of Parcel 237.
- 1.4.58 Field boundary hedgerows supported species such as dunnock, song thrush and linnet. Some species such as corn bunting and yellowhammer (*Emberiza citrinella*) were present but more limited in their abundance and distribution across the Survey Area.
- 1.4.59 Riparian associated species (particularly passerines) such as sedge warbler, Cetti's warbler, reed warbler (*Acrocephalus scirpaceus*) and reed bunting appeared correlated with the distribution of the drainage and ditch network across the Survey Area.
- 1.4.60 Woodland boundaries throughout the Survey Area generally supported an expected assemblage of notable woodland and scrub species (including woodpigeon, song thrush, dunnock and wren).
- 1.4.61 The fishing pools in the north of the Survey Area were noted to support great crested grebe, mallard, Cetti's warbler and other waterbirds.

Intertidal

- 1.4.62 A number of key observations on distribution and habitat use within the intertidal area were made as follows:
- The lagoon adjacent to the coastal footpath was used by individuals or small groups of waders and ducks (such as avocet, shoveler, teal and little egret), but generally in low numbers.
 - The edge of the saltmarsh closest to the sea was used as a roost by large (100-200) numbers of oystercatcher and herring gull and smaller numbers of other waterbirds including curlew, redshank and shelduck. Other waterbirds also foraged along this fringe.
 - The mouth of the River Stour supported large numbers of oystercatcher and gulls on occasion. During the early season visits (March and April) this area supported brent goose, dunlin, redshank and gulls though these species were either absent or present in reduced numbers later in the breeding season.

- Species using exposed mudflat areas during the mid-tide period included the above species but also sandwich tern.
- A small number of records of starling (*Sturnus vulgaris*), skylark, meadow pipit, Cetti's warbler, reed bunting and other notable passerines were recorded within the saltmarsh and reedbed habitats, normally as individuals or small groups. Species associated with the nearby Pegwell Country Park, such as bullfinch (*Pyrrhula pyrrhula*), were also recorded on occasion.

Existing disturbance

- 1.4.63 Disturbance to birds within the inland areas is limited due to the lack of roads and public rights of way and the recreational use being limited generally to the fishing lakes and the limited footpath network. It is likely that agricultural machinery and activities are the main existing disturbance sources across the remainder of the Survey Area, although recreational shooting also takes place during the winter season.
- 1.4.64 The public right of way along the River Stour canal appears subject to very limited footfall, based on observations made throughout the survey visits.
- 1.4.65 Existing disturbance sources to birds in the intertidal area appeared to be comparable to those present as recorded in previous reports, including the following:
- Windsurfers present near the shoreline at low tide;
 - Occasional bait diggers within exposed shore areas;
 - Walkers occasionally present on shore sometimes with dogs; and
 - Boats entering the River Stour mouth.

1.5 Evaluation

Conservation Status

- 1.5.1 A total of 109 bird species were recorded within the Survey Area, of these, 73 are notable species, as summarised described within Section 4.
- 1.5.2 From the breeding assemblage of 84 species (birds recorded as confirmed, probable or possible breeders):
- Four species are included on Annex 1 of the EU Birds Directive (little egret, sandwich tern, marsh harrier (*Circus aeruginosus*) and peregrine falcon (*Falco peregrinus*));
 - Eight species are included on Schedule 1 of the Wildlife and Countryside Act (1981, as amended) (little ringed plover (*Charadrius dubius*), garganey, whimbrel, marsh harrier, peregrine falcon, hobby (*Falco subbuteo*), bearded tit (*Panurus biarmicus*) and Cetti's Warbler);
 - Eighteen species are listed as NERC Act Section 41 Species of Principal Importance (bullfinch, corn bunting, cuckoo, curlew, dunnoek, grasshopper warbler (*Locustella naevia*), grey partridge, house sparrow (*Passer domesticus*), herring gull, lapwing, linnet, reed bunting, ring ouzel (*Turdus torquatus*), skylark, song thrush, starling, yellowhammer, yellow wagtail;

- Sixteen species are included on the BoCC Red List (includes above species also mistle thrush (*Turdus viscivorus*), greenfinch (*Chloris chloris*) and nightingale); and
- Thirty one species are included on the BoCC Amber List (refer below and **Annex 2.E.1** for further detail).

- 1.5.3 Table 1.5 gives a very brief commentary on the numbers and distribution of each of these species. Where a species occurs in significant numbers, it is addressed in further detail in the subsequent sections of this evaluation section.
- 1.5.4 Note where a species falls under multiple conservation status criteria, it is addressed in the first tier only.
- 1.5.5 Figures illustrating the distributions of these species within the site during the breeding bird survey are listed in Section 1.1.

Table 1.5 Conservation status of recorded notable species and summary of observations

Species	Inland	Intertidal
SPA and Ramsar Qualifying (and notable) Species		
Gadwall	A group of four to ten birds recorded along River Stour canal and flooded fields to the south on most visits.	NR – Not Recorded
Great crested grebe	Family recorded on fishing lakes, Parcel 244 on multiple visits.	Four birds recorded in water on 22.03.24.
Greenshank	Single bird recorded in fields south of River Stour on 24.04.24 during OHL incidental survey and during 02.05.24.	NR
Turnstone	NR	Single bird recorded on northern part of shoreline on 22.03.24
Wildlife & Countryside Act 1981 (as amended) Schedule 1		
Avocet	Single recorded in flooded areas of Parcel 237 at far west on 16.05.24.	Recorded on three surveys within the lagoon in coastal parcel, as group of two to three birds.
Bearded tit	Single bird recorded in reedbeds of Parcel 228 on 02.05.24, south of River Stour canal.	NR
Cetti's warbler	Recorded on every survey visit, counts in region of 16 – 19 birds across Survey Area. 30 territories recorded, primarily along scrubby ditch boundaries and noted to be more abundant in field boundaries in the western half (west	Individuals recorded singing from reedbed and scrub adjacent to PRow.

Species	Inland	Intertidal
	of the A256) of the Survey Area, although also recorded on the ditch along the south of Parcel 346.	
Fieldfare	Flyover only, five recorded on 22.03.24.	NR
Garganey	Male recorded in flooded arable fields of Parcel 237 on 22.03.24.	NR
Green sandpiper	Flyover parcel 346 on 22.03.24 by four birds and single over Parcel 238 on 03.04.24	NR
Hobby	NR	Flyover of coastal lagoon on 02.05.24
Little ringed plover	Single bird recorded on 02.05.24 in flooded fields south of River Stour canal.	NR
Marsh harrier	Flights recorded on several dates, all in fields north and south of River Stour canal	NR
Mediterranean gull	Two birds recorded on ground at convertor station (parcel 244) on 22.03.24 and eight in arable fields south of River Stour canal on 30.04.24.	Flyover only on 03.04.24.
Merlin	Single bird recorded just beyond Survey Area on 30.04.24 OHL search as incidental	NR
Redwing	Recorded on 22.03.24 and 03.04.2024 as small late winter flocks.	NR
Peregrine	Single bird recorded passing over Parcel 244 on 22.03.24.	NR
Whimbrel	Single flyover on 16.04.24 and 02.05.24 south of River Stour canal.	Individual on mudflats 16.04.24.
Wood sandpiper	Single bird recorded in Parcel 237 on 02.05.24.	NR
EC Birds Directive 2009 Annex 1		
Dunlin	Single bird recorded in pool adjacent and north to River Stour canal on 16.04.24	Recorded as small group on mouth of River Stour on 16.04.24 only.

Species	Inland	Intertidal
Little egret	Recorded within the waterbodies adjacent the River Stour canal in field 232 and in flooded areas of Parcel 237 on most survey visits.	Recorded foraging along the lagoon and on adjacent saltmarsh as individuals and small groups on multiple visits.
Ruff	Flyover of six birds adjacent to River Stour Canal on 03.04.24	NR
Sandwich tern	NR	Peak count of 89 birds on mudflats on 16.04.24 with much smaller groups on other visits.
NERC Act 2006 Section 41		
Bullfinch	Single bird calling in railway side scrub in Parcel 244 on 03.06.24	NR
Corn bunting	Individuals recorded as scattered calling / singing birds within Parcels 237, 232 and 328 on separate survey dates. Count of eight birds on 16.05.24 includes a flyover of a flock of six birds	NR
Cuckoo	Majority of records come from scattered calling birds across majority of Survey Area (Parcels 237, 232 and 244) on 03.06.24.	Single flyover on 16.04.24.
Curlew	One recorded within Parcel 244, adjacent to fishing lakes on 16.04.24.	Recorded on four survey visits within the coastal area, mostly along the tide line or within the mudflats. Group of 75 birds recorded on tideline on 22.03.24.
Dunnock	Recorded on each survey visit, scattered across entire Survey Area but mainly recorded as calling or singing birds in hedge, scrub or wooded boundaries. Peak count of 14 recorded on 22.03.24.	Single bird calling along the coastal area on 03/04/24.
Grasshopper warbler	Single bird recorded singing in boundaries in north east area of Parcel 237 on 02.05.24.	NR
Grey partridge	Recorded in arable fields of parcel 237 on three survey visits, near southern edge of Survey Area.	NR

Species	Inland	Intertidal
Herring gull	Non-breeder. Majority of inland records come from small to mid-sized groups (20-60 birds) or individuals within Parcels 244 and 238, though individuals and small groups also recorded in Parcel 237.	Recorded on most coastal surveys with max flock of 123 on 03/06/24.
House sparrow	Two birds recorded in hedgerow boundaries in Parcel 232 on 16.04.24	Two birds recorded in single occasion in shoreline scrub, though noted to be abundant in houses and gardens beyond the Survey Area to the west and north.
Lapwing	Small groups of two to nine birds recorded on three occasions, exclusively within flooded fields south of the River Stour Canal.	NR
Lesser black-backed gull	Individuals recorded in arable fields within Parcel 237 south of River Stour Canal and Parcel 238.	Group of six recorded on 22.03.2024, mixed with other gulls on mouth of River Stour.
Linnet	Individuals and small flocks spread throughout Survey Area, primarily associated with boundary hedgerows and scrub. Recorded on all visits.	Recorded singing from scrub adjacent to PRow on two survey visits.
Reed bunting	Individuals and small flocks spread throughout Survey Area (aside from east of the A256), primarily associated with boundary drainage ditches and reed areas but also hedgerows. Recorded on all visits.	Individuals recorded calling and singing on 22.03.24 and 03.04.23.
Ring ouzel	Single bird recorded in Parcel 237 on 16.04.24 as likely passage migrant	NR
Skylark	Evenly distributed throughout arable field expanses, aside from flooded areas, though less numerous in Parcels 328 and 346 east of the A526.	NR
Song thrush	Widely but thinly distributed across Survey Area with individuals recorded throughout the Survey Area on all most visits.	Two birds calling from Pegwell Country Park adjacent to PRow on 03.04.24.
Starling	Small groups and flocks recorded in fields north and south of the River Stour Canal, though total birds	Two birds recorded near coastal lagoon on 02.05.24.

Species	Inland	Intertidal
	recorded each occasion as 14 or less.	
Yellowhammer	Records of scattered birds concentrated on field boundaries of the southwest area of Parcel 244, usually as individual birds.	NR
Yellow wagtail	Registrations distributed across Survey Area as five apparent clusters, recorded as a total of one to six birds each visit.	NR
BoCC Red		
House martin	Single flyover of River Stour Canal on 03.06.24.	NR
Greenfinch	NR	Single or three birds recorded in scrub adjacent to PRow on two visits.
Mistle thrush	Single bird recorded in scrub adjacent to Marsh Farm treatment works in Parcel 232 on 03.06.24	NR
Nightingale	Recorded as a single territory and peak count of two birds on southern woodland boundary of Parcel 244.	NR
Swift	Flyover of two birds over River Stour Canal on 03.06.24	Flyover of coastal lagoon recorded on 16.05.24.
BoCC Amber		
Black-headed gull	Flock of over 240 birds with additional smaller groups present in flooded fields south of River Stour Canal on present on first four survey visits, with smaller numbers present on later visits.	Small groups recorded on mudflat and River Stour mouth on most visits but groups of generally 20 birds or less.
Brent Goose	NR	Three birds on mudflat the two April visits.
Cattle egret	Flyover of single bird south of River Stour Canal on 16.05.24	NR
Common sandpiper (<i>Actitis hypoleucos</i>)	Single recorded on 16.05.24 on eastern edge of Parcel 237 in fields near railway line.	NR

Species	Inland	Intertidal
Great black-backed gull	Individuals recorded on 16.04.24 in Parcel 244 southwest corner.	Two to six birds recorded on most survey visits.
Grey plover	NR	Single recorded on intertidal mudflat on 16.04.24.
Grey wagtail (<i>Motacilla cinerea</i>)	Single flyover of River Stour canal on 16.04.24	NR
Kestrel (<i>Falco tinnunculus</i>)	Singles recorded as flyover on 22.03.24 and 02.05.24.	NR
Lesser black-backed gull	Small groups south of River Stour canal and in Parcel 244 on several survey visits.	Small group (ten or less) mixed with other gulls on several survey visits.
Mallard	Scattered groups across Survey Area in flooded fields, waterbodies (including River Stour Canal and fishing lakes) and in flooded fields on all visits. Numbers recorded between five and 40 birds in total per visit.	Individual birds occasional on coastal lagoon.
Meadow pipit	Large flock of 71 birds recorded in arable fields north of River Stour Canal (parcel 232) on 03.04.24, likely late winter aggregation. Other sightings attributable to individuals and small groups across Survey Area.	Individuals recorded in saltmarsh fringe.
Moorhen	Sightings correlated to larger waterbodies (fishing lakes in Parcel 244 and marshy pools in Parcel 229 and 231) and drainage ditches in Parcel 232. Recorded on each visit though in small numbers, between one and four birds.	NR
Oystercatcher	NR	Over 540 birds recorded along mouth of River Stour on 22.03.24. Then in much smaller numbers on subsequent visits of approx. 30 birds or less but with 198 birds recorded on the final June visit.
Redshank	Individuals recorded in flooded field south of River Stour Canal.	Occasionally recorded adjacent the lagoon or mudflats in the coastal area in low numbers (peak count 13).

Species	Inland	Intertidal
Rook	Recorded as small groups (five or less) mostly in proximity to Parcel 346 and Ebbsfleet Lane / Stoneless golf course.	NR
Sedge warbler	Frequent throughout field boundary drains, counts per visit between 7 and 21 from late March onwards	NR
Shelduck	Over 30 birds distributed in flooded fields south of River Stour canal on 03.04.24 and scattered individuals and small groups recorded during other surveys in this area and Parcel 244	Groups of 38 and 40 birds recorded on the 16.05.24 and 03.06.24 respectively and smaller groups recorded on other visits. Birds primarily on mudflat but also recorded on the coastal lagoon.
Shoveler	Small group of six birds recorded on flooded fields to the south of the River Stour canal on 22.03.24.	Small groups recorded on coastal lagoon on 22.03.24 and 03.04.23.
Snipe	Individuals recorded in marshy areas in Parcel 229 and 231 immediately south of River Stour canal as well as using pools to the north.	NR
Sparrowhawk (<i>Accipiter nisus</i>)	Recorded as male flyover Parcel 244 on 02.05.24 with a second bird recorded over Parcel 232.	NR
Spotted redshank	Single bird recorded incidentally in Parcel 237 during OHL survey on OHL 30.04.24.	NR
Stock dove (<i>Columba oenas</i>)	Individuals and small groups (<5) recorded on most visits. Confirmed nesting with box in parcel 244.	NR
Teal	Three birds in flooded field at convertor station (parcel 244) on 22.03.24. Two birds on fishing lake in Parcel 244 on 03.06.24.	Small groups recorded in the lagoon in the coastal area on one survey visit 22.03.24.
Water pipit	Two individuals recorded in marshy grass areas of parcel 227 and flooded areas of parcel 237 on 22.03.24.	NR
Wheatear (<i>Oenanthe oenanthe</i>)	Single bird recorded in bottom of extent of Parcel 237 on 16.04.23	NR

Species	Inland	Intertidal
Whitethroat	Distributed across the Survey Area in field boundary hedgerow and scrub with peak count of 28 birds.	Individual birds recorded in scrub adjacent to the coastal lagoon and Pegwell country park.
Willow warbler (<i>Phylloscopus trochilus</i>)	Individual birds recorded on woodland southern boundary of Parcel 244 and in scrub adjacent to Marsh Farm water treatment facility.	NR
Woodpigeon	Frequently recorded across Site, some singing individuals and a peak count of 304 on 22/03/24 potentially representing late winter aggregation near Marsh Farm water treatment station.	Individuals recorded adjacent to PRow.
Wren	Recorded on each survey visit, distributed throughout Survey Area and frequent within field boundary habitats and many territories	NR

Functionally Linked Land – Designated Site Context

- 1.5.6 Areas that are functionally linked to European designated sites are considered when they may be affected by plans and projects. For the purposes of this assessment, land is considered 'linked' to a European site if it serves an important ecological function in maintaining or restoring the population of qualifying species at favourable conservation status (Natural England, 2016).
- 1.5.7 Limited breeding or passage qualifying species associated with the nearby designated sites were recorded. The following species listed on the Stodmarsh SPA/Ramsar citation were recorded as follows:
- Gadwall – Noting the distance of the Stodmarsh site and likely dispersal range this duck species (Natural England, 2019), it is assessed that the recorded gadwall are from a local population and not from the Stodmarsh SPA/Ramsar.
- 1.5.8 A number of species recorded as winter qualifying species were recorded, though in reduced numbers compared to numbers recorded in winter:
- Turnstone – Single recorded within intertidal area during March survey, showing limited use of this area of the Thanet Coast SPA and Ramsar by this species.
- 1.5.9 Regarding the SPAs, the above species are relevant to winter only and so have not been assessed further. Assessment of winter qualifying species is provided within 2022/23 wintering report.
- 1.5.10 The noteworthy species great crested grebe (recorded breeding within the Parcel 244 fishing lakes and once on the intertidal) and greenshank (recorded once incidentally during existing overhead line surveys in Parcel 237) of the Thanet Coast Ramsar were also recorded but note these are not qualifying species (noteworthy only).

- 1.5.11 Overall, the areas of the sections of the Thanet Coast SPA and Ramsar and Sandwich Bay within the Survey Area were found to support limited numbers of passage waterbirds for which they are designated, but other areas of the Survey Area did not support these species. It is noted no evidence of the presence of breeding little tern was recorded during the survey.
- 1.5.12 Small groups of mallard, shelduck, shoveler and gadwall potentially from the Hacklinge Marshes SSSI were found to be using the East Stour canal and adjacent waterbodies, flooded fields south of the River Stour Canal and Parcel 244 within and near the location of the proposed converter station.
- 1.5.13 No evidence of functionally linked land for breeding or passage species was recorded for other areas (i.e., inland) of the Survey Area. It is assessed that there is an absence of functional linkage between the Survey Area and designated sites in relation to breeding birds, based on the survey results.

Species Abundance

- 1.5.14 No counts of any breeding bird species recorded within the Survey Area approach 1% of the national breeding population estimates (Woodward, et al., 2020), aside from a few passage migrant species. As such, the Survey Area did not support breeding populations of national importance for any species. The peak counts of spotted redshank and green sandpiper and water pipit represent over 1% of their respective wintering/passage national population estimates of 67, 290 and 205 (Frost, et al., 2019) but appear attributable to late wintering/passage birds rather than being part of the breeding assemblage.
- 1.5.15 The peak count of oystercatcher of 574 was notable and is approximately 0.6% of the 92,500 Great Britain breeding population estimate, but no evidence of breeding was recorded, with this species being known to breed in Sandwich Bay located beyond 6km south of the Site (Kent Ornithological Society, 2023).
- 1.5.16 At a county level, territories recorded during the field survey were compared with available within the (Birds of Kent Report 2021 (Kent Ornithological Society, 2023)). All species were recorded in low numbers in comparison with county records aside from the species discussed below.
- Oystercatcher – Pegwell Bay is known to have some of the largest breeding season counts as described in the Kent Bird Report (Kent Ornithological Society, 2023) and this is confirmed by the counts recorded during survey.
 - Spotted redshank and green sandpiper – counts over 1% of national population estimates were recorded, as discussed above.
 - Mute swan – the aggregation of 69 birds recorded on 16 April 2024 is comparable to some of the larger aggregations recorded within the county (Kent Ornithological Society, 2023).
 - Shelduck – aggregations recorded inland during most visits.
 - Marsh harrier – use of part of the Survey Area by a possible off-site-nesting pair represents use of the Site by one of approximately 50 pairs stated to breed in Kent (Kent Ornithological Society, 2023).
 - Cuckoo – the recorded peak count is comparable to the peak of seven from the Kent Bird report.

- Skylark – the recorded peaks and number of territories reflect the suitability of the arable habitats for this species and noting the figures are likely underestimates of species utilising the centre of arable crop fields.
- Meadow pipit – a large peak count recorded but appear to comprise post winter aggregations, with numbers during subsequent visits much reduced.
- Cetti's warbler counts and territories approach known sites of importance for this species elsewhere in Kent (Kent Ornithological Society, 2023) but noting this now a widespread and well distributed species across southern England.

1.5.17 The counts of avocet, garganey, grey partridge, yellow wagtail, sedge warbler, linnet, corn bunting and reed bunting are notable but these are species that appear to have higher counts or are better represented elsewhere in the county (Clements, Kent breeding bird atlas: 2008-2013, 2015; Kent Ornithological Society, 2023).

Species Diversity

1.5.18 The inland areas recorded a diverse range of species reflecting the mix of arable, wetland, woodland and riparian features present.

1.5.19 The River Stour Canal, the wet scrapes to the north and flooded arable fields to the south supports the best inland assemblage, containing the majority of waterbird, raptor and riparian passerine interest, and with rough grassland and tree lines here also supporting a range of farmland species.

1.5.20 Across the remainder of the inland area, species associated with field drains and small watercourses are well represented. The arable assemblage is diverse but detailed review shows many species were recorded only in small numbers relative to the size of the Survey Area (e.g. yellowhammer and yellow wagtail).

1.5.21 None of the criteria for inclusion of the inland site as an LWS are likely to be met, with the possible exception of the River Stour Canal and its surrounds, with its value greatly increased during 2024 from the diversity of waterbird and passerine assemblages present. A number of passage species recorded in this area further increased the recorded diversity.

1.5.22 The diverse assemblage of species recorded during the intertidal counts reflects the designated status of Pegwell Bay and was primarily comprised of a range of wildfowl, waders and gulls including recording of occasional vagrant species.

Habitat/Distribution

Inland

1.5.23 Overall, the inland areas held a diverse assemblage of notable species with the River Stour canal, the wet scrapes to the north and flooded arable fields to the south being the most valuable habitats for birds.

1.5.24 A notable difference in the presence of waterbird aggregations south of the River Stour canal from the previous 2023 breeding survey appeared to comprise a continuation of the use of this area by waterbird aggregations from the winter 2023/2024 season. While this area was not directly surveyed during the 2023 breeding season, the observation of large aggregations was also visible from transect routes used during 2023 and so is not attributable to changes in available access and corresponding survey coverage. It

appears the arable fields to the were greatly increased in value for birds during 2024 due to the presence of standing water.

- 1.5.25 The River Stour canal, adjacent pools, ditches and reedbeds were noted to support a diverse assemblage of birds as expected from the diversity of habitats present.
- 1.5.26 The western extents of Parcel 244 (adjacent to the railway line and near the location of the proposed convertor station) also supported groups of waterbirds, though in smaller numbers than the River Stour Canal surrounds. The March visit recorded shelduck, teal, Mediterranean gull and mallard in this area (counts less than ten) but the presence of waterbirds here decreased later in the season.
- 1.5.27 The majority of passerines commonly encountered during surveys occurred generally in association with their expected habitats. Cetti's warbler, sedge warbler, linnet and reed bunting were often associated with ditches, associated reed fringes and boundary hedgerows.
- 1.5.28 Some rarer species were thinly distributed across most of the Survey Area, for example cuckoo and corn bunting.
- 1.5.29 A few notable species did show apparent clustering, concentrated in certain areas of the Survey Area. Grey partridge were only recorded south of the River Stour Canal. Yellowhammer was generally recorded along the field boundaries within Parcel 244. Yellow wagtail occurred across the Survey Area but as approximately five distinct clusters. Nightingale was recorded only on the wooded southern boundary of Parcel 244 Lapwing occurred primarily south of the River Stour Canal.
- 1.5.30 The arable fields supported good numbers of skylark as described within the 'Species Abundance' section.
- 1.5.31 In contrast to observations during previous winter and breeding seasons aggregations of some waterbird species were only (or primarily) being recorded in the flooded fields inland, such as gadwall, garganey, shoveler, black-headed gull and lapwing. This could be partially responsible for the relatively low numbers of some species recorded in the intertidal area.

Intertidal

- 1.5.32 The largest numbers of waterbirds tended to be associated with aggregations along the mouth of the River Stour or as high tide roosts along the edge of the saltmarsh, primarily oystercatcher. A number of species were however noted to be associated with the coastal lagoon and adjacent saltmarsh including avocet, teal and little egret.
- 1.5.33 Passerines recorded within the saltmarsh were generally not recorded as breeding, with the possible exceptions of reed bunting and meadow pipit. Cetti's warbler, house sparrow, woodpigeon, greenfinch and other passerines were recorded on occasion in association with coastal scrub but likely originate from nearby residential areas or breed within inland habitats such as Pegwell Country Park.
- 1.5.34 The inland flooded areas could be partially responsible for the relatively low numbers of some waterbird species recorded in the intertidal area, with these species alternatively making use of flooded inland areas or split between the two (such as shelduck, teal and mallard).

Temporal (Monthly Variations)

Inland

- 1.5.35 Generally, the presence of migratory bird species reflected the seasonal patterns expected of these species within the inland areas as described in Results.
- 1.5.36 The majority of inland species were recorded throughout the survey season. While numbers fluctuated, their continued presence strengthens the likelihood of probable breeding and is generally reflected in territories being present for these species. A notable exception to this is the waterbird aggregations recorded as utilising flooded areas south of the River Stour and Parcel 244 in the first half of the breeding season.
- 1.5.37 A number of passage migrants such as ruff, spotted redshank, green sandpiper, wood sandpiper, ring ouzel, wheatear and water pipit were recorded once or infrequently.
- 1.5.38 Some species which may have been expected to be present throughout the breeding season were however only recorded on occasion within the Survey Area, either due to limited detectability, small populations or birds not establishing permanent territories. Key examples include:
- Common sandpiper. Recorded once in May.
 - House martin and swift. Recorded during one or two survey visits, local populations likely to be foraging elsewhere.
 - Kestrel. Recorded infrequently despite suitable habitat and a generally common species.
 - Greenfinch and willow warbler. Singles recorded during one visit or two and likely uncommon birds in the Survey Area despite being county and nationally well distributed.
 - Little ringed plover, water rail, jack snipe and bearded tit recorded infrequently (single or two visits), though all cryptic species being hard to detect.
- 1.5.39 The recorded numbers of some species decreased during June and July surveys, which may be attributable to the decreased detectability of some species in the later months (i.e., decreased singing or activity levels for early breeding species).

Intertidal

- 1.5.40 Intertidal results followed a general trend of overall numbers reducing from March (end of winter season). Notable exceptions included the large oystercatcher aggregation recorded on the final June survey and the peak count of sandwich tern during April. A few species that were recorded in small numbers were consistently present during the survey period such as mallard, avocet, little egret and black-headed gull.

Overall Importance of Breeding Bird Populations

Inland

- 1.5.41 Inland areas supported a good diversity and abundance of passerine species associated within the riparian and boundary habitats and with skylark being frequently recorded across the arable fields. Waterbird diversity and peak counts south of the

River Stour Canal were particularly notable, as was a number of rare migrant species recorded in this area.

- 1.5.42 The species assemblage recorded within the inland area, based upon numbers and conservation status is broadly representative of the habitats present (in the context of proximity to the coast and presence of nearby designated sites) and the assemblage overall has been assessed as of local (district) importance, but noting that the River Stour canal and adjacent areas approach county importance due to the diversity and abundance of species (particularly waterbirds and passage migrants) recorded.

Intertidal

- 1.5.43 As expected, the shoreline and intertidal areas supported a diverse bird assemblage. Locally important numbers of waterbirds were, however, only present throughout the breeding season for a limited number of species (including avocet, oystercatcher and gulls) with limited evidence of breeding of most species.
- 1.5.44 The overall valuation of the breeding bird assemblage recorded within the intertidal zone would likely meet county importance criteria (as no species numbers approach a significant proportion of national breeding estimates but are important at a county breeding season level in terms of numbers). However, the valuation of the intertidal area and would remain as international as per its status as an SPA/Ramsar.

Species

- 1.5.45 Overall, the peak/territory counts of a small number of species are assessed as particularly notable as follows:
- Oystercatcher – local (district) due to large intertidal counts at the start and end of survey season but less consistent and reduced numbers compared to observations in previous years.
 - Ruff, spotted redshank, green sandpiper, wood sandpiper and water pipit– county level based on small recorded county numbers (Kent Ornithological Society, 2023) and small Great Britain population estimates (Frost, et al., 2019) but passage migrants only and recorded only once or infrequently.
 - Mute swan – local (district) as the aggregation of 69 birds recorded on 16 April 2024 is comparable to some of the larger aggregations recorded within the county (Kent Ornithological Society, 2023).
 - Shelduck – local (district) due to consistent recording of counts in the region of 50 birds using the inland areas on many survey visits comparable to some of the larger aggregations recorded within the county (Kent Ornithological Society, 2023).
 - Marsh harrier provisionally assessed as local (district) importance due to the recorded peak count being comparable to county peak counts as well regular recording during surveys. The species is assessed as breeding beyond the Survey Area but making use of it for foraging and display, mostly near to the River Stour Canal.
 - Mediterranean gull – assessed as local (district) as peak count of eight is notable but this species is well distributed within the county (Kent Ornithological Society, 2023).
 - Cuckoo – assessed as local (district) with a recorded count is comparable to the peak counts recorded elsewhere in Kent (Kent Ornithological Society, 2023).

- Skylark as local (district) importance due to large peak counts and territories being comparable to peak county counts within the Kent Bird Report (Kent Ornithological Society, 2023) but a species known to be well distributed throughout the county.

References

- Austin, G. E., Calbrade, N. A., Birtles, G. A., Peck, K., Shaw, J. M., Wotton, S. R., . . . Frost, T. M. (2023). *Waterbirds in the UK 2021/2022: The Wetland Bird Survey and Goose & Swan Monitoring Programme*. Thetford: BTO/RSPB/JNCC/NatureScot.
- Balmer, D., Gillings, G., Caffery, B., Swann, B., Downie, I., & Fuller, R. (2013). *Bird Atlas 2007-11: The Breeding and Wintering Birds of Britain and Ireland*.
- Bibby, C. J., Burgess, N. D., Hill, D. A., & Mustoe, S. (2000). *Bird Census Techniques*. London: Harcourt Brace & Company.
- Bird Survey & Assessment Steering Group. (2023). *Bird Survey Guidelines for assessing ecological impacts, v.1.1.1*. Retrieved from <https://birdsurveyguidelines.org>
- BTO.org. (2020). *WeBS annual report (2019/20)*. BTO WeBS Reports.
- CIEEM. (2018). *Guidelines for ecological impact assessment in the United Kingdom and Ireland: Terrestrial, Freshwater and Coastal. Version 1.1 (Updated September 2019)*. Chartered Institute of Ecology and Environmental Management, Winchester.
- CIEEM. (2019). *Advice Note: On the Lifespan of Ecological Reports and Surveys*. Winchester: Chartered Institute of Ecology and Environmental Management.
- Clements, R. e. (2015). Kent breeding bird atlas: 2008-2013. *Kent Ornithological Society*.
- Clements, R. e. (2015). *Kent breeding bird atlas: 2008-2013*.
- Cutts, N., Hemingway, K., & Spencer, J. (2013). *Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning and Construction Projects*. Retrieved October 15, 2024, from TIDE Toolkit: https://tide-toolbox.eu/tidetools/waterbird_disturbance_mitigation_toolkit/
- Department for Environment, Food and Rural Affairs. (2024). *Multi-agency Geographic Information for the Countryside (MAGIC) Interactive Map*. Retrieved from <http://magic.defra.gov.uk>
- Frost, T. A., Frost, T. M., Austin, G. E., Hearn, R. D., McAvoy, S. G., Robinson, A. E., . . . Wotton, S. R. (2019). Population estimates of wintering waterbirds in Great Britain. *British Birds March 2019 Volume: 112*, 16pp.
- Gilbert, G., Gibbons, D. W., & Evans, J. (1998). *Bird Monitoring Methods: A manual of techniques for key UK species*. Bedfordshire: RSPB.
- Holling, M., & Rare Breeding Bird Panel. (2019). Rare Breeding Birds in the UK in 2017. *British Birds*, 112, 706-758. Retrieved October 15, 2024, from <https://www.rbbp.org.uk/wp-content/uploads/2020/07/rbbp-report-2017.pdf>
- Kent Ornithological Society. (2020). *Kent Bird Report 2020*.
- Kent Ornithological Society. (2023). *Kent Bird Report 2021*.
- Kent Wildlife Trust. (2022). *Local Wildlife Sites in Kent. Criteria for Selection and Delineation. Version 1.7*. Tyland Barn, Kent.
- Natural England. (2016). *Functional linkage: How areas that are functionally linked to European sites have been considered when they may be affected by plans and projects – a review of authoritative decisions (NECR207)*.
- Natural England. (2019). *Impact Risk Zones Guidance Summary Sites of Special Scientific Interest Notified for Birds Version 1.1. Natural England Impact Risk Zones Project*.
- Sandwich Bay Bird Observatory Trust. (2020). *Wading Bird Monitoring of the Thanet Coast SPA in Jan/Feb 2020*. Retrieved from Thanet-Wader-Survey-2020
- Scottish Natural Heritage. (2017). *Recommended bird survey methods to inform impact assessment of onshore wind farms. March 2017, Version 2*.
- Scottish Natural Heritage. (2021). *Bats and onshore wind turbines - survey, assessment and mitigation. August 2021*.
- Stanbury, A. J., Eaton, M. A., Aebischer, N. J., Balmer, D., Brown, A. F., Douse, A., . . . Win, I. (2021). The status of our bird populations: the fifth Birds of Conservation Concern in the United Kingdom, Channel Islands and

Isle of Man and second IUCN Red List assessment of extinction risk for Great Britain. *British Birds*, 114, 723-747. Retrieved October 08, 2024, from <https://britishbirds.co.uk/content/status-our-bird-populations>

Woodward, I., Aebischer, N., Burnell, D., Eaton, M., Frost, T., Hall, C., . . . Noble, D. (2020). *APEP 4 Population estimates of birds in Great Britain and the United Kingdom*. *British Birds*: 113. BTO. Retrieved from <https://www.bto.org/our-science/publications/peer-reviewed-papers/a pep-4-population-estimates-birds-great-britain>

Annex 2.E.1 Detailed Survey Data

Table A.1 Detailed survey data

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
AV. Avocet (<i>Recurvirostra avosetta</i>)	Birds Dir: An1 WCA Schedule 1 species Amber: BL, WL	-	2	3	1	3	-	N/A	3	1.50	Non-breeder	Summering	0
B. Blackbird (<i>Turdus merula</i>)	Green	15	9	2	7	2	9	N/A	15	7.33	Probable	Permanent territory	P = present
BC. Blackcap (<i>Sylvia atricapilla</i>)	Green	1	4	2	5	4	7	N/A	7	3.83	Probable	Permanent territory	P

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
BF. Bullfinch (<i>Pyrrhula pyrrhula</i>)	Section 41 species. Amber: BDMp2	-	-	-	-	-	1	N/A	1	0.17	Possible	Suitable habitat	0
BG Brent goose (<i>Branta bernicla</i>)	Amber: WL, WI		3	3				N/A	3	1.00	Non-breeder	Migrant	0
BH. Black-headed Gull (<i>Chroicocephalus ridibundus</i>)	Amber: WDMp1, WI	393	278	332	130	52	12	N/A	393	199.50	Non-breeder	Summering	0
BR. Bearded Tit (<i>Panurus biarmicus</i>)	WCA Schedule 1 species	-	-	-	1	-	-	N/A	1	0.17	Possible	Suitable habitat	0
BT. Blue Tit (<i>Cyanistes caeruleus</i>)	Green	5	-	1	1	-	8	N/A	8	2.50	Probable	Singing	P
BZ. Buzzard (<i>Buteo buteo</i>)	Green	5	-	2	4	-	1	N/A	9	2.00	Possible	Suitable habitat	P

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
C. Carrion Crow (<i>Corvus corone</i>)	Green	20	10		2	3	3	N/A	20	6.33	Probable	Permanent territory	P
CA. Cormorant (<i>Phalacrocorax carbo</i>)	Green	19	11	3	2	-	-	N/A	19	5.83	Non-breeder	Summering	P
CB. Corn Bunting (<i>Emberiza calandra</i>)	Section 41 species. Red: HD, BDp2, BDr2; BDMp1, BDMr1, WDMr	-	-	1	1	8	1	N/A	8	1.83	Probable	Singing	0 territories
CC. Chiffchaff (<i>Phylloscopus collybita</i>)	Green	19	12	7	11	5	12	N/A	19	11.00	Probable	Permanent territory	P
CD. Collared Dove (<i>Streptopelia decaocto</i>)	Green	-	-	-		1	-	N/A	1	0.17	Possible	Suitable habitat	P

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
CG. Canada Goose (<i>Branta canadensis</i>)	Green	4	-	-	-	-	-		4	0.67	Non-breeding	Fly-over	P
CH. Chaffinch (<i>Fringilla coelebs</i>)	Green	17	2		4	4	6	N/A	17	5.50	Probable	Permanent territory	P
CK. Cuckoo (<i>Cuculus canorus</i>)	Section 41 species. Red: BDp2; BDMp1				3	1	7	N/A	7	1.83	Probable	Singing	Two territories
CO. Coot (<i>Fulica atra</i>)	Green	6	1	3	-	8		N/A	8	3.00	Confirmed	Recently fledged young	P
CS. Common Sandpiper (<i>Actitis hypoleucos</i>)	Amber: BDMp1/2, WR	-	-	-	-	1	-	N/A	1	0.17	Possible	Suitable habitat	0
CU. Curlew (<i>Numenius arquata</i>)	Section 41 species.	75	1	8	-	5	3	N/A	75	15.33	Possible	Suitable habitat	0 territories

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
	Amber: ERLOB												
CW. Cetti's Warbler (<i>Cettia cetti</i>)	WCA Schedule 1 species Green	19	16	19	13	16	19	N/A	29	20.67	Probable	Permanent territory	Thirty territories
D. Dunnock (<i>Prunella modularis</i>)	Section 41 species. Amber: BDMp2	14	10	2	4	5	5	N/A	14	6.67	Probable	Permanent territory	Eight territories
DN. Dunlin (<i>Calidris alpina</i>)	Birds Dir: An1 Red: WDp2; WDMp1, BDMr1, BL, WL	-	-	18	-	-	-	N/A	18	3.00	Non-breeder	Migrant	0
DR. Spotted redshank (<i>Tringa erythropus</i>)	Amber: WR	-	-	-	-	-	-	1 (OHL 30.04.24)	1	N/A	Non-breeder	Migrant	0

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
EC. Cattle Egret (<i>Bubulcus ibis</i>)	Amber: BR	-	-	-	-	1	-	N/A	18	3.17	Non-breeder	Flyover	0
ET. Little Egret (<i>Egretta garzetta</i>)	Birds Dir An1 Green	3	3	18	6	7	6	N/A	1	0.17	Possible	Suitable habitat	0
FF. Fieldfare (<i>Turdus pilaris</i>)	WCA Schedule 1 species Red: BDP1/2, BDr1, BDMr2, BR	5	-	-	-	-	-	N/A	18	8.33	Non-breeder	Migrant	0
FP. Feral Pigeon (<i>Columba livia domestica</i>)	None	-	1	-	-	-	-	N/A	1	0.17	Possible	Suitable habitat	0
G. Green Woodpecker (<i>Picus viridis</i>)	Green	3	-	1	-	-	-	N/A	3	0.67	Possible	Suitable habitat	0

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
GA. Gadwall (<i>Anas strepera</i>)	Amber: BI	10	8	6	4	-	-	N/A	10	4.67	Probable	Courtship and display	0
GB. Great Black-backed Gull (<i>Larus marinus</i>)	Amber: BDMp2, WDMp1	97	-	21	-	4	-	N/A	97	20.33	Possible	Suitable habitat	0
GE. Green Sandpiper (<i>Tringa ochropus</i>)	WCA Sch1. Amber: BDMr1, BR, WR	4	1	-	-	-	-	N/A	4	0.83	Non-breeder	Migrant	0
GG. Great Crested Grebe (<i>Podiceps cristatus</i>)	Green	8	2	2	3	3	3	N/A	9	3.50	Confirmed	Recently fledged young or downy young	2 territories
GH. Grasshopper Warbler (<i>Locustella naevia</i>)	Section 41 species. Red: BDp2	-	-	-	1	-	-	N/A	1	0.17	Probable	Singing	0

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
GK. Greenshank (<i>Tringa nebularia</i>)	WCA Sch1. Amber BL	-	-	-	1	-	-	1 (OHL 24.04.24)	1	0.17	Non-breeding	Migrant	0
GL. Grey Wagtail (<i>Motacilla cinerea</i>)	Amber: BDMp2	-	-	1	-	-	-	N/A	1	0.17	Possible	Suitable habitat	0
GO. Goldfinch (<i>Carduelis carduelis</i>)	Green	19	2	-	3	2	6	N/A	19	5.33	Probable	Singing	P
GR. Greenfinch (<i>Chloris chloris</i>)	Red: BDp1/2	-	1	-	-	3	-	N/A	3	0.67	Probable	Singing	0
GT. Great Tit (<i>Parus major</i>)	Green	3	4	2	1	-	-	N/A	4	1.67	Probable	Permanent territory	P
GV. Grey Plover	Amber WDMp1, WL	-	-	1	-	-	-	N/A	1	0.17	Non-breeder	Summering	0

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
(Pluvialis squatarola)													
GY. Garganey (Spatula querquedula)	WCA Sch1. Amber: BR	1	-	-	-	-	-	N/A	1	0.17	Possible	Suitable habitat	0
H. Grey Heron (Ardea cinerea)	Green	4	1	4	3	5	6	N/A	6	3.83	Probable	Pair in suitable habitat	0
HG. Herring Gull (Larus argentatus)	Section 41 species. Red: BDp2, WDp1, BI, WI	59	1	78	89	83	123	N/A	123	72.17	Possible	Suitable habitat	0
HM. House Martin (Delichon urbicum)	Red: BDp2	-	-	-	-	-	1	N/A	1	0.17	Non-breeder	Flyover	0
HS. House Sparrow	Section 41 species. Red: BDp2	-	-	2		2	-	N/A	2	0.67	Possible	Suitable habitat	0

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Visit 6						
		22/03/24	03/04/23	16/04/24	03/05/24	16/05/24	03/06/24						
(Passer domesticus)													
HY. Hobby (Falco subbuteo)	WCA Sch1 Birds Dir An1 Green	-	-	-	1	-	-	N/A	1	0.17	Possible	Suitable habitat	0
J. Jay (Garrulus glandarius)	Green	1	-	-	-	-	-	N/A	1	0.17	Possible	Suitable habitat	P
JD. Jackdaw (Corvus monedula)	Green	3	-	-	-	1	-	N/A	3	0.67	Possible	Suitable habitat	P
JS. Jack snipe (Lymnocryptes minimus)	Green	1	-	-	-	-	-	N/A	1	0.17	Possible	Suitable habitat	P
K. Kestrel (Falco tinnunculus)	Amber: BDMp1/2	1	-	-	1	-	-	N/A	1	0.33	Possible	Suitable habitat	0

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
L. Lapwing (<i>Vanellus vanellus</i>)	Section 41 species. Red: BDp2, ERLOB, BDMp1, WDMP2, WI	9		3		-	2	N/A	9	2.33	Possible	Suitable habitat	0
LB. Lesser Black-backed Gull (<i>Larus fuscus</i>)	Amber: BL, BI	6	-	10	2	-	-	N/A	10	3.00	Possible	Suitable habitat	0
LI. Linnet (<i>Linaria cannabina</i>)	Section 41 species. Red: BDp2	29	11	33	11	17	14	N/A	33	19.17	Probable	Permanent territory	At least three colonies
LP. Little Ringed Plover (<i>Charadrius dubius</i>)	WCA Sch1. Green	-	-	-	1	-	-	N/A	1	0.17	Possible	Suitable habitat	0
LT. Long-tailed Tit	Green	-	-	-	3	12		N/A	12	2.50	Confirmed	Recently fledged young	P

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
(Aegithalos caudatus)													
LW. Lesser Whitethroat (Sylvia curruca)	Green	-	-	3	9	3	1	N/A	9	2.67	Probable	Permanent territory	1
M. Mistle Thrush (Turdus viscivorus)	Red: BDp2, 4 BDMp1	-	-	-	-	-	1	N/A	4	0.83	Possible	Suitable habitat	0
MA. Mallard (Anas platyrhynchos)	Amber: WDMp1/2	40	21	12	20	41	19	N/A	41	25.50	Confirmed	Recently fledged young or downy young	14 territories
MG. Magpie (Pica pica)	Green	16	2	1	5	4	2	N/A	16	5.00	Probable	Permanent territory	1
MH. Moorhen (Gallinula chloropus)	Amber: BDMp2	6	2	3	4	2	1	N/A	6	3.00	Probable	Permanent territory	Two territories

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
ML. Merlin (<i>Falco columbarius</i>)	WCA Sch1. Birds Dir: An1 Red: HD; ERLOB	-	-	-	-	-	-	1 (OHL 30.04.24)	1	0	Non-breeder	Migrant	0
MP. Meadow Pipit (<i>Anthus pratensis</i>)	Amber: BDMp2	18	80	3	2	2		N/A	80	17.50	Probable	Singing	One territory
MR. Marsh Harrier (<i>Circus aeruginosus</i>)	Birds Dir: An1 WCA Sch1, Amber: BL	4	2	-	1	-	-	N/A	4	1.17	Probable	Pair in suitable habitat	0 (likely territory beyond and including Survey Area)
MS. Mute Swan (<i>Cygnus olor</i>)	Green	20	73	9	19	9		79 (OHL 04.04.24)	73	21.67	Possible	Suitable habitat	P
MU. Mediterranean	Birds Dir: An1	3	1	8	-	-	-	N/A	8	2.00	Non breeder	Summering	0

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
n Gull (<i>Larus melanocephalus</i>)	WCA Sch1, Amber: BL												
N. Nightingale (<i>Luscinia megarhynchos</i>)	Red: BDp1/2, BDMr2	-	-	1	2	-	-	N/A	2	0.50	Probable	Permanent territory	One territory
OC. Oystercatcher (<i>Haematopus ostralegus</i>)	Amber: ERLOB, WL, WI, BI	574	-	8	62	35	198	N/A	574	146.17	Non-breeding	Summering	0
OD. Wood Sandpiper (<i>Tringa glareola</i>)	WCA Sch1 Birds Dir: An1 Amber	-	-	-	-	1	-	N/A	1	0.17	Non-breeding	Migrant	0
P. Grey Partridge (<i>Perdix perdix</i>)	Section 41 species. Red: BDp1/2; BDMr2	2	2	-	2	-	-	N/A	2	1.00	Possible	Suitable habitat	0

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
PE. Peregrine (<i>Falcon peregrinus</i>)	WCA Sch1 Birds Dir: An1	1	-	-	-	-	-	N/A	1	0.17	Possible	Suitable habitat	0
PH. Pheasant (<i>Phasianus colchicus</i>)	Green	6	6	-	4	2	3	N/A	6	3.50	Probable	Singing	P
PT. Pintail (<i>Anas acuta</i>)	Amber: ERLOB, BDMp1, BDMr1/2, BR, WL, WI	-	-	-	4	-	-	N/A	4	0.67	Possible	Suitable habitat	0
PW. Pied Wagtail (<i>Motacilla alba</i>)	Green	21	1	3	-	-	-	N/A	4		Possible	Suitable habitat	P
R. Robin (<i>Erithacus rubecula</i>)	Green	11	4	-	5	1	3	N/A	11	4.00	Probable	Permanent territory	P
RB. Reed Bunting	Section 41 species.	38	16	13	12	12	13	N/A	38	17.33	Probable	Permanent territory	16 territories

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
(<i>Emberiza schoeniclus</i>)	Amber: BDMp2												
RE. Redwing (<i>Turdus iliacus</i>)	WCA Schedule 1 species. Red: BDMr1/2, BR	66	1	-	-	-	-	N/A	66	11.17	Non-breeder	Migrant	0
RI. Ring-necked Parakeet (<i>Psittacula krameri</i>)	N/A	-	2	-	1	-	-	N/A	2	0.50	Possible	Suitable habitat	P
RK. Redshank (<i>Tringa totanus</i>)	Amber: ERLOB, BDMp1, BDMr1/2, WI	13	5	-	1	-	1	N/A	13	3.33	Possible	Suitable habitat	0
RN. Raven (<i>Corvus corax</i>)	Green	3	1	1	3	-	6	N/A	6	2.33	Confirmed	Adults entering or leaving	One territory

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
												nest site, indicating occupied nest	
RO. Rook (<i>Corvus frugilegus</i>)	Amber: ERLOB	-	-	5		5	-	N/A	5	1.67	Possible	Suitable habitat	0
RU. Ruff (<i>Calidris pugnax</i>)	Bird Dir: Ann 1 WCA Schedule 1 species. Red: BDr2; BDMp1/2, BR	-	6	-	-	-	-	N/A	6	1.00	Non-breeder	Flyover	0
RW. Reed Warbler (<i>Acrocephalus scirpaceus</i>)	Green	-	-	3	24	44	35	N/A	44	17.67	Probable	Permanent territory	P

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
RZ. Ring Ouzel (<i>Turdus torquatus</i>)	Section 41 species. Red: BDp2; BDMr2			1				N/A	1	0.17	Non-breeder	Migrant	0
S. Skylark (<i>Alauda arvensis</i>)	Section 41 species. Red: BDp2	34	19	28	18	28	26	N/A	34	25.50	Confirmed	Carrying food	At least 22 territories
SD. Stock Dove (<i>Columba oenas</i>)	Amber: BI	25	-	7	4	7	7	N/A	25	8.33	Confirmed	Adults entering or leaving nest site, indicating occupied nest	One territory
SG. Starling (<i>Sturnus vulgaris</i>)	Section 41 species. Red: BDp1/	7	1	2	2	14	6	N/A	14	5.33	Possible	Suitable habitat	0

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
SH Sparrowhawk (<i>Accipiter nisus</i>)	Amber: BDMp1,	-	-	-	2	-	-	N/A	2	0.33	Confirmed	Adults carrying food	0 territories
SI. Swift (<i>Apus apus</i>)	Red: BDp1	-	-	-	-	-	4	N/A	4	0.67	Non-breeder	Flyover	0
SK. Siskin (<i>Spinus spinus</i>)	Green	1	1	-	-	-	-	N/A	1	0.33	Non-breeder	Migrant	0
SL. Swallow (<i>Hirundo rustica</i>)	Green	-	-	21	-	15	2	N/A	21	6.33	Possible	Suitable habitat	P
SN. Snipe (<i>Gallinago gallinago</i>)	Amber: ERLOB, WDMp1, BDMr2	1	1	1	-	-	-	N/A	1	0.50	Possible	Suitable habitat	0
ST. Song Thrush (<i>Turdus philomelos</i>)	Section 41 species. Amber: BDMp2	12	2	-	2	2	2	N/A	12	3.33	Probable	Permanent territory	One territory

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
SU. Shelduck (<i>Tadorna tadorna</i>)	Amber: BDMp1, WDMp1, WL	52	38	54	60	59	40	N/A	60	50.50	Possible	Suitable habitat	0
SV. Shoveler (<i>Spatula clypeata</i>)	Amber: BI	13	13	16				N/A	16	7.00	Probable	Pair	0
SW. Sedge Warbler (<i>Acrocephalus schoenobaenus</i>)	Amber: BDMp2			7	21	19	19	N/A	21	11.00	Probable	Permanent territory	15 territories
T. Teal (<i>Anas crecca</i>)	Amber: WI	15	-	-	-	2	-	N/A	15	2.83	Possible	Suitable habitat	0
TE. Sandwich Tern (<i>Thalasseus sandvicensis</i>)	Bird Dir: Ann 1 Green		6	89	18	-	-	N/A	89	18.83	Possible	Suitable habitat	0

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
TT. Turnstone (<i>Arenaria interpres</i>)	Amber: WDMp1	1	-	-	-	-	-	N/A	1	0.17	Non-breeding	Summering	0
TU. Tufted Duck (<i>Aythya fuligula</i>)	Green	-	-	-	-	2	-	N/A	2	0.33	Probable	Pair	P
W. Wheatear (<i>Oenanthe oenanthe</i>)	Amber: BDMp1	-	-	2	-	-	-	N/A	2	0.33	Non-breeder	Migrant	0
WA. Water Rail (<i>Rallus aquaticus</i>)	Green	1	-	1	1	-	-	2 (OHL 30.04.24)	1	0.50	Possible	Suitable habitat	P
WH. Whitethroat (<i>Sylvia communis</i>)	Amber: BDMp2	-	-	8	15	28	19	N/A	28	11.67	Probable	Permanent territory	At least 18 territories
WI. Water Pipit (<i>Anthus spinoletta</i>)	Amber: WR	5						N/A	5	0.83	Non-breeder	Migrant	0

Species	Conservation Status	Visit Sum Count						Other survey incident peak counts (if in excess)	Overall (by Visit) Peak Count	Overall Mean count (excluding incidentals)	Highest Recorded Breeding Status	Breeding Status Detail	Total Number of Breeding Territories (where applicable)
		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
WM Whimbrel (<i>Numenius phaeopus</i>)	Birds Dir: An1 WCA Schedule 1 species. Red BDp1, BDr1; BDMr2, WR			1	1			N/A	1	0.33	Possible	Suitable habitat	0
WP. Woodpigeon (<i>Columba palumbus</i>)	Amber: BI	333	14	9	9	25	30	N/A	333	70.00	Probable	Permanent territory	P
WR. Wren (<i>Troglodytes troglodytes</i>)	Amber: BI	24	14	12	16	13	13	N/A	24	15.33	Probable	Permanent territory	P
WW. Willow Warbler (<i>Phylloscopus trochilus</i>)	Amber: BDMp2	-	-	2	-	-	-	N/A	2	0.33	Possible	Suitable habitat	0

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		Visit 1 22/03/24	Visit 2 03/04/23	Visit 3 16/04/24	Visit 4 03/05/24	Visit 5 16/05/24	Visit 6 03/06/24						
Y. Yellowhammer (<i>Emberiza citrinella</i>)	Section 41 species. Red: BDp2, BDMp1	1	1	2	2	1	5	N/A	5	2.00	Probable	Permanent territory	Two territories
YW. Yellow Wagtail (<i>Motacilla flava</i>)	Section 41 species. Red: BDp2; BDMp1, BDMr1/2	-	1	1	5	3	6	N/A	6	2.67	Probable	Permanent territory	Four territories

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