

Report

Dengie Marshes Wind Farm

**EIA Scoping Report Appendix 7A –
Winter Bird Report 2023/2024**

For Dengie Marshes Wind Farm Limited

30 May 2025

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Report

Dengie Winter Birds

Winter Bird Report 2023/24

For Blenheim Renewables

30 April 2024

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1 Introduction

1.1 Project Background

The Client, Blenheim Renewables, commissioned Logika Consultants Ltd. (Logika) to provide a wintering bird assessment across a large area of farmland within the east and southeast of the Dengie Peninsular, Essex ahead of a proposed planning application for onshore wind power generation.

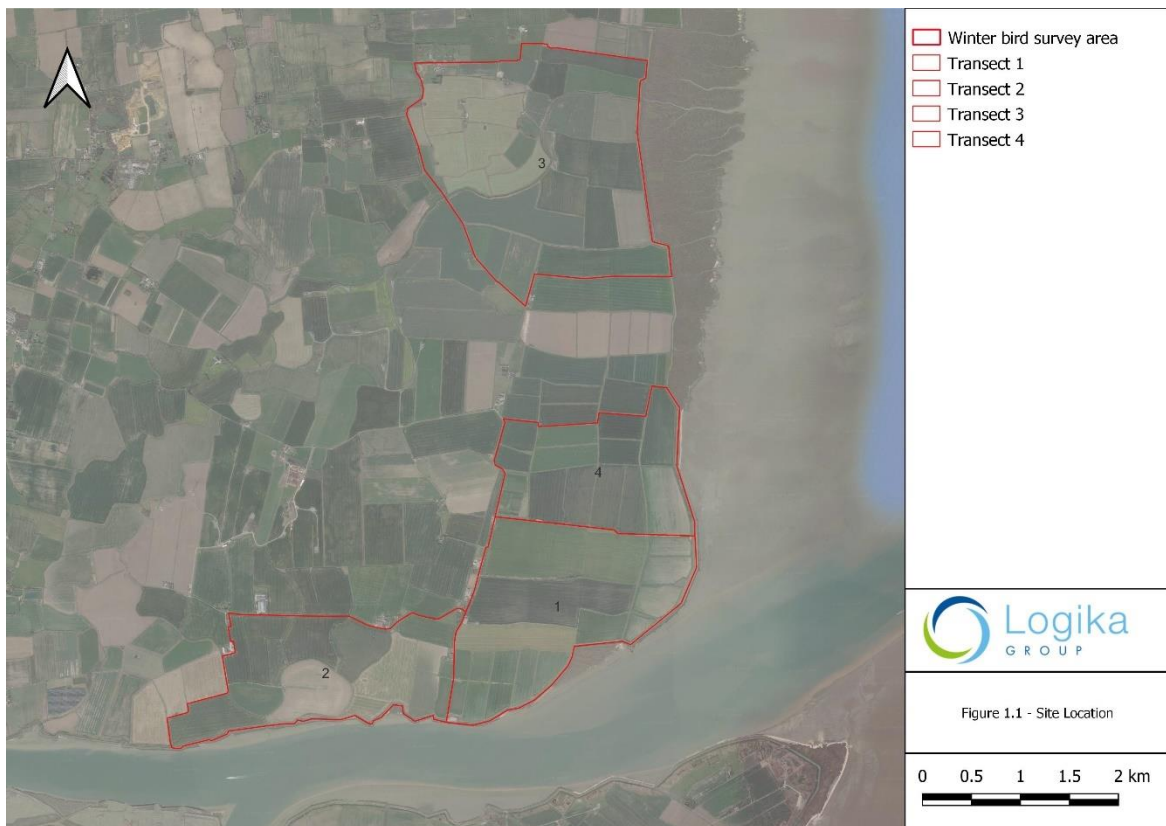
This area is considered important for nature conservation and receives a high level of protection supporting the Essex Estuaries Special Area of Conservation (SAC), Dengie Special Protection Area (SPA), Ramsar site and National Nature Reserve (NNR) and the Crouch and Roach Estuaries SPA and Ramsar site. These designations support a large number of designated features between them including wintering and breeding birds, priority habitats and invertebrates.

The wintering bird surveys were undertaken across a wide area to assess the immediate ornithological constraints presented within the Site and inform scheme design to reduce potential ornithological impacts.

1.2 The Site

The Site covers approximately 1294 hectares (ha) of farmland within the east and southeast of the Dengie Peninsular, see **Figure 1.1** below. For the purposes of the winter bird survey, this area was split into four transects which could be surveyed independently, without overlapping effort. The four transect areas (Transects 1-4) are shown on **Figure 1.1**.

Figure 1-1 Site Location and winter bird transects.



The winter bird survey transects covered large areas of farmland on the landward side of the seawall, extending up to two kilometers in-land within the northern portion of the Site. This survey area was selected to focus on the distribution of wintering birds in relation to proposed wind turbine locations.

2 Methodology

As the erection of wind turbines within an area identified as internationally important for a range of wintering birds has the potential to negatively impact the wintering bird assemblage, a wintering bird assessment began in December 2023 and continued monthly to March 2024 to establish baseline conditions for wintering bird distribution within, and directly adjacent to the Site.

The purpose of the wintering bird survey was to collect data on the distribution, assemblages and behaviour of wintering birds, with a focus on waterbird species (or other important wintering bird assemblages) that have potential to utilise the Site as functionally linked habitat from nearby designated sites, thereby presenting consenting risks to the project. The survey focused on diurnal distribution of target species throughout the survey period.

The survey employed a roving observation point technique, used to observe all birds within the survey areas during the survey period. The aim of these surveys was to determine whether any of the notable species defined below, regularly feed, loaf, or roost within the Site, and if so, the locations and frequency of records.

Notable species are defined as:

- Species noted as interest features on Dengie (Mid-Essex Coast Phase 1) SPA and RAMSAR designation including dark-bellied brent goose, grey plover, red knot and hen harrier;
- All other waders and wildfowl (excluding feral / domestic birds, mallard, Canada goose and greylag goose) for consideration to overall winter assemblage number;
- Species listed on Schedule 1 of the Wildlife and Countryside Act (WCA) 1981 (as amended);
- Species listed on Annex I of the European Union (EU) Birds Directive;
- Birds of Conservation Concern (BoCC) red list species (Stanbury *et al.*, 2021); and
- Species of Principal Importance (SPI) noted on The Natural Environment and Rural Communities (NERC) Act 2006 (as amended).

Surveyors recorded accurate locations of species directly onto survey maps alongside additional details including:

- Species (Using standard British Trust for Ornithology (BTO) two-character codes);
- Number of individuals
- Location of records; and
- Activity (foraging, loafing / preening, roosting, flying-over etc.).

The presence of species that do not qualify as notable using the criteria were noted to record a full species list for each survey area, however, information on numbers, distribution and behaviour were not recorded.

All surveys were undertaken in favourable condition, avoiding periods of persistent heavy rain, or strong or cold winds, where possible, therefore minimising variation in bird activity levels due to weather conditions.

Full survey details, including dates, timings and weather conditions can be found in **Table A1, Appendix A**.

3 Results

3.1 Field Survey Results

A total of 44 target species were recorded within or flying-over the Site during the survey period, of which:

- Three species are listed as designated features on Dengie (Mid-Essex Coast Phase 1) SPA: dark-bellied brent goose, grey plover and hen harrier.
- Two species are listed as designated features on the Dengie (Mid-Essex Coast Phase 1) RAMSAR: dark-bellied brent goose and grey plover.
- Ten species are listed on Schedule 1 of the WCA 1981 (as amended): Cetti's warbler, common scoter, fieldfare, hen harrier, merlin, marsh harrier, peregrine, red-throated diver, redwing and snow bunting – of which Cetti's warbler, marsh harrier and peregrine have the potential to nest within the area affording them increased levels of protection through Schedule 1 listing.
- 14 species are listed as SPI: black-tailed godwit, corn bunting, common scoter, curlew, dark-bellied brent goose, hen harrier, herring gull, lapwing, linnet, reed bunting, skylark, starling, white-fronted goose and yellowhammer.
- 16 species are listed on the BoCC red list: black-tailed godwit, corn bunting, common scoter, curlew, dunlin, fieldfare, hen harrier, herring gull, lapwing, linnet, merlin, ringed plover, skylark, starling, white-fronted goose and yellowhammer; and
- Nine species listed on Annex I of the EU Birds Directive: golden plover, hen harrier, little egret, marsh harrier, merlin, peregrine, red-breasted goose, red-throated diver and short-eared owl.

Table 3.1 below presents the total number of records for each target species as well as the maximum number recorded, along with relevant legislative protection or conservation status.

A full list of species recorded during the surveys is provided in **Table B1, Appendix B**.

Table 3-1 Target species recorded during the winter bird surveys.

BTO Code	Species	No. of records	Peak count	Legislative protection or conservation status.
BW	Black-tailed godwit	1	40	SPI, BoCC Red
CA	Cormorant	4	6	
CB	Corn bunting	9	600+	SPI, BoCC Red
CW	Cetti's warbler	3	1	Sch.1
CX	Common scoter	1	23	Sch.1, SPI, BoCC Red
CU	Curlew	7	7	SPI, BoCC Red
DB	Dark-bellied brent goose	20	3821	SPI
DN	Dunlin	9	75	BoCC Red
EB	Red-breasted goose	1	1	Annex I

BTO Code	Species	No. of records	Peak count	Legislative protection or conservation status.
ET	Little egret	17	21	Annex I
FF	Fieldfare	7	147	Sch.1, BoCC Red
GG	Great crested grebe	3	5	
GP	Golden plover	8	850	Annex I
GV	Grey plover	5	50	
H.	Grey heron	2	2	
HG	Herring gull	4	100	SPI, BoCC Red
HH	Hen harrier	3	1	Sch.1, SPI, Annex I, BoCC Red
HW	Great white egret	1	1	
JS	Jack snipe	2	1	
L.	Lapwing	3	6	SPI, BoCC Red
LI	Linnet	7	600	SPI, BoCC Red
ML	Merlin	1	1	Sch.1, Annex I, BoCC Red
MR	Marsh harrier	7	5	Sch.1, Annex I
OC	Oystercatcher	14	50	
PE	Peregrine	1	1	Sch.1, Annex I,
RB	Reed bunting	7	13	SPI
RE	Redwing	2	7	Sch.1
RH	Red-throated diver	1	2	Sch.1, Annex I
RK	Redshank	13	32	
RP	Ringed plover	1	2	BoCC Red
S.	Skylark	5	20+	SPI, BoCC Red
SB	Snow bunting	1	1	Sch.1
SE	Short-eared owl	1	2	Sch.1, Annex I
SG	Starling	8	2000+	SPI, BoCC Red
SN	Snipe	1	4	
SS	Sanderling	1	12	
SU	Shelduck	10	90	
SV	Shoveler	4	225	
T.	Teal	5	240	
TT	Turnstone	10	159	

BTO Code	Species	No. of records	Peak count	Legislative protection or conservation status.
WA	Water rail	1	1	
WG	White-fronted goose	1	13	SPI, BoCC Red
WN	Wigeon	2	100	
Y.	Yellowhammer	1	12	SPI, BoCC Red

The survey area covered an expanse of arable farmland characterised by large monoculture fields, with relatively little vegetative cover available from hedgerows or treelines. Areas of set-aside / fallow land provided some cover for passerines.

Target species were recorded across the entire survey area, in differing number, though areas of particular ornithological interest were present within the saltmarshes that lie adjacent to the south and east of the Site. The seawall, saltmarshes and river / sea adjacent to the Site provided the majority of wader and duck records with birds foraging within the intertidal zone. There were few records of waterfowl, mainly geese within the Site.

Aggregations of birds with the potential to influence scheme design were mapped on **Figures 3.1 – 3.4d, Appendix C**. These figures, show the summary and monthly distribution records for dark-bellied brent goose, wildfowl, wading birds and other geese, respectively. Below are summaries for species recognised as notified features on nearby statutory designations.

Brent goose – Designated on Dengie (Mid-Essex Coast Phase 1) SPA and RAMSAR.

The distribution of brent geese within the Site changed throughout the period and appeared to be linked to crop type, tidal state and to a lesser extent military testing activities on Foulness Island. With flocks observed frequently foraging within the fields behind the seawall on Transects 1,2 and 4, with further observations of birds foraging within the saltmarsh adjacent to the Site and flying between the Site and Foulness island. During the surveys, the surveyor noted that bird scaring techniques, including the use of gas-bangers and visual disturbance agents were used frequently within Transect 3 to dissuade flocks of geese from settling on the agricultural crops.

The peak count of 3821 dark-bellied brent geese occurred during the December survey where military testing was seen / heard from the Site and birds were observed moving to the Site from Foulness. Other peak monthly counts included 3100 foraging >500m north of Transect 3 in January; 3300 preening / loafing within Transect 4 in February; and 35 in the saltmarsh east of Transect 3 in March. The results suggest that brent geese were distributed widely across the south of the Site, normally with a single main flock moving between fields to forage / loaf / preen.

Grey Plover - Designated on Dengie (Mid-Essex Coast Phase 1) SPA and RAMSAR.

Grey plover were recorded in relatively low numbers across the survey period, with five observation of birds all within the saltmarshes adjacent to the Site. Two observations of six and two individual grey plover foraging in December. A single bird was observed loafing during the January survey. The peak count occurred in February, with 50 birds loafing / preening within the saltmarsh and numbers reduced slightly to 29 loafing / preening during the March survey. There were no records within the Site.

Hen Harrier - Designated on Dengie (Mid-Essex Coast Phase 1) SPA.

Hen harrier were recorded on three occasions during the survey period, with a peak count of one. Two records were within Transect 3, including lone birds foraging over farmland, in December and

February; with the other record within Transect 2 in March. It is possible that these records pertain to the same individual wintering within the area, or it could be birds moving between Dengie Peninsular and nearby roosts.

Other records

In addition to hen harrier, Schedule 1 listed birds of prey, including marsh harrier, merlin, short-eared owl and peregrine were observed foraging in low numbers within the Site and over the adjacent saltmarshes; a peak count of five marsh harrier in March included a displaying male at a regular nesting location. Other schedule 1 listed birds were observed infrequently throughout the survey period either as fly-over records within the Site or foraging within land adjacent.

Waterfowl considered for their overall wintering assemblage within the Dengie were evident only in low numbers with peak counts of ducks including shelduck, shoveler, teal and wigeon below the numbers expected within Sites of importance. The peak counts of Shelduck (90 birds), Shoveler (225), Teal (240) and wigeon (100) all occurred in February, suggesting the birds utilise the area during periods of passage rather than over-winter.

Flocks of farmland birds, including corn bunting, linnet and yellowhammer were present foraging within set-aside land during the survey. With sizeable flocks of corn bunting and linnet forming between January and March, particularly in Transects 2 and 4; with peak counts of 600+ linnet in February, and 600 + corn bunting in March.

4 Conclusions

The winter bird survey has identified areas that are considered to be important for wintering birds including the large assemblage of dark-bellied brent geese. These survey results should be used to refine the proposed turbine layouts, moving turbines more in-land / away from areas frequently utilised for foraging by large numbers of geese. Taking account of these survey results and refining the scheme design will reduce the potential constraint from passage / wintering birds, though more information is to be gained on the potential for collision risk with turbines from the ongoing vantage point surveys that began in April 2024.

Appendix A – Survey details

Table 4-1: Winter bird survey details

Survey Visit / Location	Date	Start time	End time	Weather
Visit 1 – Transect 2	20/12/2023	11:00	15:30	0/8 Oktas cloud, visibility >3km, westerly Beaufort 3, dry, 10°C
Visit 1 - Transect 1 and 4	21/12/2023	08:00	15:30	8/8 Oktas cloud, visibility >3km, westerly Beaufort 6, light showers, 11°C
Visit 1 – Transect 3	22/12/2023	09:00	14:00	8/8 Oktas cloud, visibility >3km, westerly Beaufort 8, dry, 12°C
Visit 2 – Transect 2	28/01/2024	09:00	14:00	0/8 Oktas cloud, visibility >3km, westerly Beaufort 3, dry, 8°C
Visit 2 – Transect 1 and 4	29/01/2024	08:00	15:30	8/8 Oktas cloud, visibility 500m improving to >3km after 11am, westerly Beaufort 4, dry, 8°C
Visit 2 – Transect 3	30/01/2024	09:00	14:00	8/8 Oktas cloud, visibility >3km, westerly Beaufort 4, dry, 7°C
Visit 3 – Transect 2 and 3	19/02/2024	08:00	15:30	6/8 Oktas cloud, visibility >3km, westerly Beaufort 3, light showers, 8°C
Visit 3 – Transect 1 and 4	23/02/2024	08:00	15:30	1/8 Oktas cloud, visibility >3km, easterly Beaufort 2, dry, 8°C
Visit 4 – Transect 2 and 3	25/03/2024	08:00	15:30	6/8 Oktas cloud, visibility >3km, westerly Beaufort 4, dry, 9°C
Visit 4 – Transect 1 and 4	26/03/2024	09:00	15:00	1/8 Oktas cloud, visibility >3km, westerly Beaufort 3, dry, 10°C

Appendix B

Table 4-2: Full species list

Species	Scientific name
Black-headed gull	<i>Chroicocephalus ridibundus</i>
Black brant	<i>Branta bernicla nigricans</i>
Black-tailed godwit	<i>Limosa limosa</i>
Buzzard	<i>Buteo buteo</i>
Canada goose	<i>Branta canadensis</i>
Carrion crow	<i>Corvus corone</i>
Cetti's warbler	<i>Cettia cetti cetti</i>
Common gull	<i>Larus canus</i>
Common scoter	<i>Melanitta nigra</i>
Cormorant	<i>Phalacrocorax carbo</i>
Corn bunting	<i>Emberiza calandra</i>
Curlew	<i>Numenius arquata</i>
Dark-bellied brent goose	<i>Branta bernicla bernicla</i>
Dunlin	<i>Calidris alpina</i>
Fieldfare	<i>Turdus pilaris</i>
Glaucous gull	<i>Larus hyperboreus</i>
Golden plover	<i>Pluvialis apricaria</i>
Goldfinch	<i>Carduelis carduelis</i>

Species	Scientific name
Great crested grebe	<i>Podiceps cristatus</i>
Great white egret	<i>Ardea alba</i>
Grey heron	<i>Ardea cinerea</i>
Greylag goose	<i>Anser anser</i>
Grey plover	<i>Pluvialis squatarola</i>
Hen harrier	<i>Circus cyaneus</i>
Herring gull	<i>Larus argentatus</i>
Jack snipe	<i>Limnocryptes minimus</i>
Jackdaw	<i>Corvus monedula</i>
Kestrel	<i>Falco tinnunculus</i>
Lapwing	<i>Vanellus vanellus</i>
Linnet	<i>Linaria cannabina</i>
Little egret	<i>Egretta garzetta</i>
Mallard	<i>Anas platyrhynchos</i>
Marsh harrier	<i>Circus aeruginosus</i>
Meadow pipit	<i>Anthus pratensis</i>
Merlin	<i>Falco columbarius</i>
Oystercatcher	<i>Haematopus ostralegus</i>
Peregrine	<i>Falco peregrinus</i>
Pied wagtail	<i>Motacilla alba yarrellii</i>

Species	Scientific name
Raven	<i>Corvus corax</i>
Reed bunting	<i>Emberiza schoeniclus</i>
Redshank	<i>Tringa totanus</i>
Redwing	<i>Turdus iliacus</i>
Red-breasted goose	<i>Branta ruficollis</i>
Red-throated diver	<i>Gavia stellata</i>
Ringed plover	<i>Charadrius hiaticula</i>
Rook	<i>Corvus frugilegus</i>
Sanderling	<i>Calidris alba</i>
Shelduck	<i>Tadorna tadorna</i>
Short-eared owl	<i>Asio flammeus</i>
Shoveler	<i>Anas clypeata</i>
Skylark	<i>Alauda Arvensis</i>
Snipe	<i>Gallinago gallinago</i>
Snow bunting	<i>Plectophenax nivalis</i>
Sparrowhawk	<i>Accipiter nisus</i>
Starling	<i>Sturnus vulgaris</i>
Stock dove	<i>Columba oenas</i>
Stonechat	<i>Saxicola torquata</i>
Teal	<i>Anas crecca</i>

Species	Scientific name
Turnstone	<i>Arenaria interpres</i>
Water pipit	<i>Anthus spinoletta</i>
Water rail	<i>Rallus aquaticus</i>
White-fronted goose	<i>Anser albifrons</i>
Wigeon	<i>Anas penelope</i>
Woodpigeon	<i>Columba palambus</i>
Yellowhammer	<i>Emberiza citrinella</i>

Appendix C - Figures









































