



The Great Grid Upgrade

Sea Link

Sea Link

Volume 9: Examination Submission

Document 9.28: Winter Bird Use of Golden Plover Enhancement Area

Planning Inspectorate Reference: EN20026

**Version A
December 2025**

nationalgrid

Contents

Executive Summary	1
1. Introduction	2
1.1 Background	2
1.2 Objectives	2
2. Site Location	3
3. Methodology	4
3.1 Field survey	4
3.2 Survey limitations	6
3.3 Lifespan of the appraisal	7
4. Results	8
4.2 Overall (combined results)	8
4.3 Non-breeding walkover survey (diurnal)	10
4.4 Nocturnal winter survey	12
4.5 Diurnal and Nocturnal Comparison Summary	14
4.6 Additional site context	14
4.7 Existing use of the Site by golden plover	15
5. References	16
Appendix A Distribution Figures	18
Appendix B Detailed Survey Data	30

Table of Tables

Table 1 Dates and weather conditions for each survey visit	5
Table 2 Non-breeding Walkover Peak and Mean Counts for Notable Species	10
Table 3 Nocturnal Peak and Mean Counts for Key Target Species	13

Table of Plates

Plate 1 Site location plan of golden plover habitat enhancement area	3
Plate 2 Summary of Notable Species Peak and Mean Counts (from all survey types)	9
Plate 3 Enhancement area at night	14

Executive Summary

- Ex1.0.1 The Kent Onshore Scheme is located within the Kent local authority areas of Thanet District and Dover District. The Golden Plover Enhancement Area ('the Site') is located approximately 2 km south of the Kent Onshore Scheme.
- Ex1.0.2 The objective of the wintering bird surveys of the Site was to inform its potential use as mitigation habitat for golden plover (*Pluvialis apricaria*), a species previously identified as being affected by the Kent Onshore Scheme. Survey visits were undertaken between December and March 2025 such that this report was not available for submission as part of the DCO, although it was referenced as an ongoing survey in **Application Document 6.6 Habitats Regulations Assessment Report [AS-007]** and **Application Document 6.2.3.2 Part 3 Kent Chapter 2 Ecology and Biodiversity [REP1-047]**. Further survey was undertaken in October 2025.
- Ex1.0.3 The surveys comprised monthly diurnal and nocturnal visits between December 2024 and March 2025 with an additional survey during October 2025. A total of 51 bird species were recorded within or adjacent to the Site, of which 26 species had a 'notable' status (as summarised within Section 4).
- Ex1.0.4 A number of species potentially associated with the nearby designated sites and coastal habitats were recorded. The recorded peak counts of golden plover and lapwing were 55 and 62 respectively, representing birds flying over in December and January, but possibly making use of local habitats based upon flights following the nearby River Stour Canal at low level. A large peak count of 300 cormorant was recorded in January but was at significant height and likely to comprise one of the large movements across the local landscape as identified by previous vantage point surveys. Snipe were recorded in consistently reasonable numbers of between 12 and 17, given the relatively small size of the Site and secretive nature of this species. Greylag goose and wigeon were also recorded as small group flyovers on single occasions.
- Ex1.0.5 While primarily an assemblage of farmland species, species associated with watercourses were also noted, attributable to the presence of wet drainage ditches and the proximity of the River Stour canal. The Site was also occasionally utilised by foraging waterbird aggregations including snipe and lapwing. Diurnal use of the Site was generally greater for most species, however both wigeon and woodcock were only recorded during nocturnal surveys.

1. Introduction

1.1 Background

- 1.1.1 This report documents non-breeding bird surveys undertaken for the “Golden Plover and Skylark Habitat Enhancement Area’ (referred to as ‘the Site’) during the 2024 – 2025 winter season (and October 2025) for the Kent Onshore Scheme of the Sea Link project (‘the Proposed Project’).
- 1.1.2 The ‘Site was subject to investigation to inform its potential use as mitigation habitat for golden plover (*Pluvialis apricaria*), a species previously identified as potentially being impacted by the Scheme. Survey visits were undertaken between December and March 2025 such that this report was not available for submission as part of the DCO, although it was referenced as an ongoing survey in **Application Document 6.6 Habitats Regulations Assessment Report [AS-007]** and the **Application Document 6.2.3.2 Part 3 Kent Chapter 2 Ecology and Biodiversity [REP1-047]**. Further survey was undertaken in October 2025.
- 1.1.3 This report details the results of the wintering bird surveys of the Site (and adjacent area) conducted between December 2024 and February 2025 with additional visits during October 2025.
- 1.1.4 This report includes the following information:
- methodologies for field-based assessments undertaken during 2024 / 2025;
 - limitations to the surveys undertaken; and
 - survey results.

1.2 Objectives

- 1.2.1 The objective of the wintering bird survey, and this report was to:
- record the species, distributions and numbers of wintering birds within and adjacent to the Site, with emphasis on golden plover; and
 - report the results of the wintering bird survey.

2. Site Location

- 2.1.1 The Site is located within the Order Limits. It comprises three arable fields situated between the A256 to the southeast, a railway line and the River Stour canal to the northwest, a sewage station to the northeast and continuing arable fields to the southwest. The Site is surrounded on three sides by boundary scrub and small trees. The most expansive areas of adjacent scrub are present to the northeast.



Plate 1 Site location plan of golden plover habitat enhancement area

3. Methodology

3.1 Field survey

3.1.1 This section details the following field survey methods undertaken:

- Non-breeding walkover survey; and
- Winter nocturnal survey.

Non-breeding walkover survey

- 3.1.2 The field survey methodology used was based on the survey methodologies detailed in Gilbert *et al.*, (1998) and guidance from the Bird Survey & Assessment Steering Group, (2023). Winter field counts were targeted where possible during the high tide period at Pegwell Bay, when the potential for the presence of birds displaced by the rising and high tide is the greatest.
- 3.1.3 During each survey visit, a suitably experienced ornithologist walked a pre-determined transect route through the Site. All bird species seen or heard during the survey were recorded and signs of activity and behaviour were noted. The species present and their behaviours were recorded on field maps using standard British Trust for Ornithology (BTO) species codes and behaviour notation.
- 3.1.4 During the survey, all species either seen or heard were recorded, however survey effort was focussed on notable species in accordance with the criteria provide in Section 3 (i.e. listed as Species of Principal Importance (SPI), red and amber status species (Stanbury, A. J., Eaton, M. A., Aebischer, N. J., Balmer, D., Brown, A. F., Douse, A., Lindley, P., McCulloch, N., Noble, D.G. & Win, I., 2021).
- 3.1.5 Birds were recorded using the standardised BTO two-letter species codes and standardised behaviour codes (Bibby C.J, Burgess N.D, Hill D.A and Mustoe S, 2000). Visual counts of all bird species encountered were made, with birds that could not be located visually identified through calls or songs.
- 3.1.6 The transects covered the entire Site, additionally aiming to record birds within adjacent habitats (i.e. up to 250 m from the Site boundary) where possible.
- 3.1.7 Five monthly survey visits were conducted between December 2024 to March 2025 inclusive with a further survey in October 2025.
- 3.1.8 Survey routes were alternated on each visit, to ensure that all parts were covered at various times of day across the duration of the survey, during a range of daylight hours between sunrise and sunset.

Winter nocturnal survey

- 3.1.9 Nocturnal surveys were conducted primarily to record any variation in use of the Site by waterbirds, potentially using inland arable fields to forage at night. Golden plover in particular, is known to have contrasting foraging areas during diurnal and nocturnal hours (Gillings, S., Fuller, R.J. & Sutherland, W, 2005). The surveys also targeted nocturnal species such as owls that may be under recorded by diurnal surveys.

- 3.1.10 Nocturnal survey visits were conducted after sunset and to coincide with the rising and high tide periods for the Thanet Coast and Sandwich Bay Ramsar and SPA. Approximate tide times and heights for Ramsgate were obtained from the Tides4Fishing website up to a month ahead, and the BBC Weather Tide Tables website up to a week ahead of survey visits.
- 3.1.11 During each of the five survey visits, a suitably experienced ornithologist walked a pre-determined transect route through the Site, similar to the diurnal surveys. Surveyors used vantage points on the transects to scan wide areas using a thermal imaging camera (specification: Pulsar Axion XQ35 Pro 2.0x-8.0x magnification).
- 3.1.12 Care was taken not to enter into field / crop areas further than necessary, to avoid disturbing roosting / foraging birds.
- 3.1.13 Bird species either seen or heard were recorded and their activity was noted, however in comparison to diurnal surveys, effort was focused upon waterbirds, raptors and owls. Birds were recorded using the standardised BTO two-letter species codes and standardised behaviour codes (Bibby C.J, Burgess N.D, Hill D.A and Mustoe S, 2000).
- 3.1.14 Surveyors walked transect routes around the Site. While an increased difficulty and reduced range of visibility is inherent with nocturnal survey, the relatively compact and accessible Site allowed comparable geographic coverage to the diurnal survey within the Site boundaries. Visibility of adjacent off-site areas was however limited.

Survey personnel, dates and weather

- 3.1.15 The winter bird survey visits were led by an experienced ornithologist with over 30 years of ornithological experience, which includes breeding and wintering bird surveys, including internationally. The lead surveyor has also held licences for species protected under Schedule 1 of the Wildlife and Countryside Act 1981 (as amended) and is a bird ringing permit holder.
- 3.1.16 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 surveying may be impractical. Survey visits were undertaken in suitable weather conditions (see Table 1 below).

Table 1 Dates and weather conditions for each survey visit

Visit No.	Date	Tide time (high)	Tide height (m)	Sunrise / sunset	Start time	End time	Weather conditions
Diurnal							
1	14.12.25	10:04	5.0	07:52	08:56	10:52	5°C, 8/8 cloud, wind BF 3 W, dry
2	11.01.25	08:57	4.4	07:54	08:00	09:52	-1°C, 8/8 cloud, wind BF 2 NW, dry (frozen)
3	09.02.25	09:03	4.1	07:17	07:50	09:31	4°C, 1/8 cloud, wind BF 2 E,

Visit No.	Date	Tide time (high)	Tide height (m)	Sunrise / sunset	Start time	End time	Weather conditions
							light rain showers
4	12.03.25	10:47	4.6	06:14	09:45	11:31	5°C, 6/8 cloud, wind BF 3 NW, dry
5	17.10.25	09:30	4.2	07:21	08:25	10:01	12°C, 8/8 cloud, wind BF 2 NE, dry
Nocturnal							
1	14.12.24	22:35	4.9	15:46	21:30	23:12	5°C, 7/8 cloud, wind BF 3 W, dry
2	11.01.25	21:39	4.3	16:09	20:35	22:00	1°C, 0/8 cloud, wind BF 2 NW, dry (frozen)
3	09.02.25	21:43	4.1	16:59	20:45	21:59	5°C, 8/8 cloud, wind BF 2 NE, dry (light rain for first 10 minutes)
4	11.03.25	22:03	4.5	17:52	20:55	22:05	2.5°C, 2/8 cloud, wind BF 2 N, dry
5	16.10.25	21:06	4.0	17:59	19:56	21:04	13°C, 8/8 cloud, wind BF 2 NE, light rain shower

3.1.17 An additional survey during October 2025 does result in data being obtained from the 2024-2025 winter season and a supplemental visit from the 2025-2026 winter season. In combination this provides greater coverage throughout the winter season (i.e. October to March), noting that the core survey coverage remains from the mid-winter months of the 2024-2025 season.

3.2 Survey limitations

3.2.1 An ecological survey represents a 'snapshot'. The extent and quality of habitats present, and their suitability for protected and priority species, such as birds, 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 report at least partially addresses the potential for changes between years. Therefore, this standard limitation is addressed as far as is reasonably possible.

3.3 Lifespan of the appraisal

- 3.3.1 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.

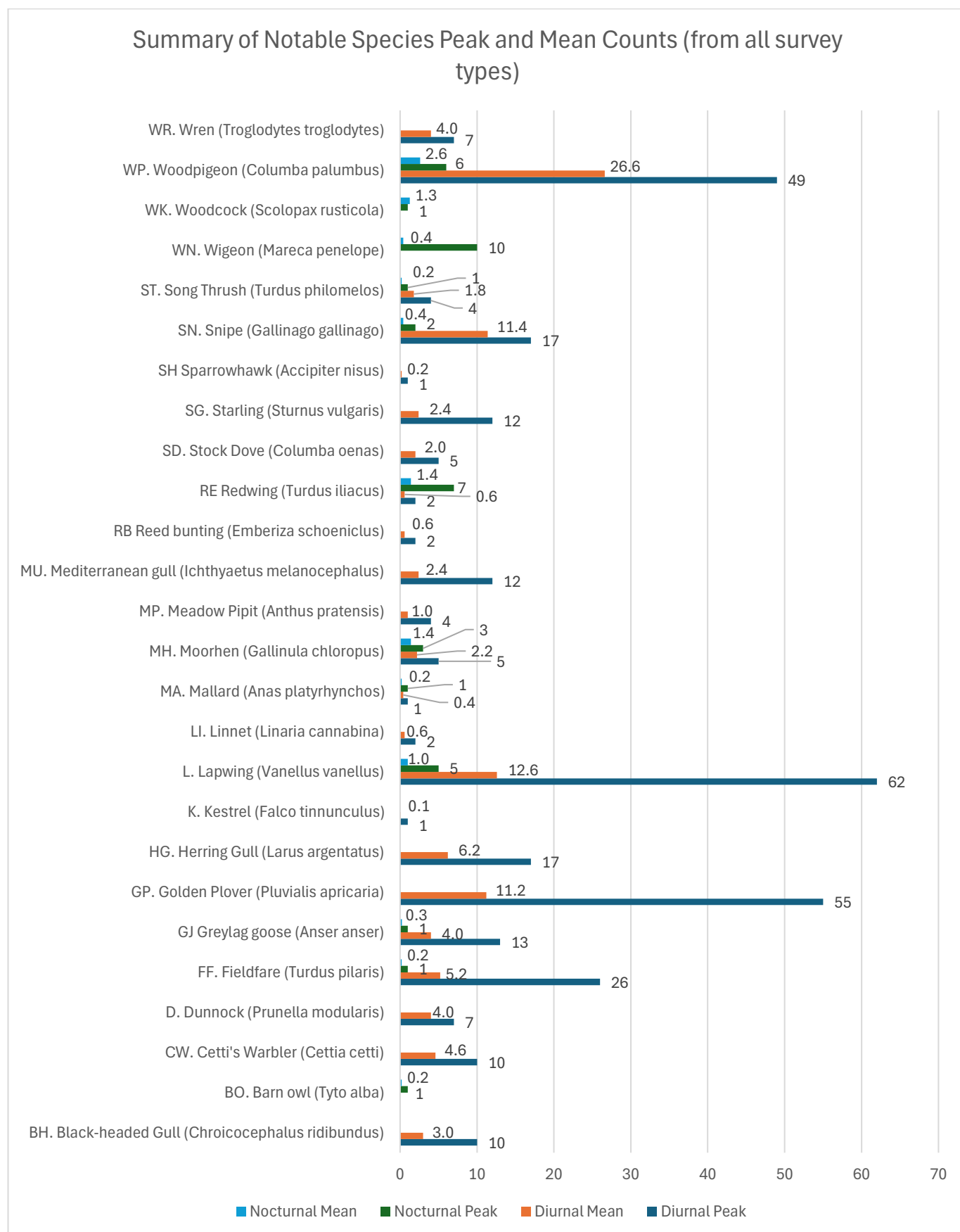
4. Results

- 4.1.1 The results for the surveys are described below, both in the context of the combined results for all surveys (i.e. overall assemblage and counts) and then in the context of the individual survey types.

4.2 Overall (combined results)

- 4.2.1 A total of 51 species were recorded within or adjacent to the Site.
- 4.2.2 A number of species were recorded as flyovers only, making no direct use of the Site or surrounds during the course of the surveys. These species were cormorant, greylag goose, golden plover, Mediterranean gull, ring necked parakeet, siskin, swallow and wigeon.
- 4.2.3 All other species were recorded directly utilising the Site. Therefore, 43 species were recorded using the Site directly.
- 4.2.4 Distribution maps are provided within Appendix A and detailed survey data is provided within Appendix B 'Detailed Survey Data'.
- 4.2.5 Species are shown in alphabetic order (rather than taxonomic) to aid with consistency when manipulating results within a database and to assist 'lay' readers.
- 4.2.6 The chart overleaf shows the peak and mean counts from the diurnal walkover and nocturnal surveys together for comparison.
- 4.2.7 At a glance it can be seen that a greater diversity and greater number of notable bird species were recorded during the diurnal surveys. While this may be expected for passerine species, it should also be noted that many waterbirds also follow this same broad pattern.
- 4.2.8 Overall lapwing and golden plover comprises the most abundant species (noting these species are primarily flyovers) with large peak counts also noticeable for woodpigeon, snipe and fieldfare. Almost all species have their highest peak count recorded during diurnal surveys with the exception of wigeon and woodcock.
- 4.2.9 Mean counts generally are much lower than the peak for many species indicating irregular recording of large numbers of birds.

Plate 2 Summary of Notable Species Peak and Mean Counts (from all survey types)



4.3 Non-breeding walkover survey (diurnal)

- 4.3.1 A total of 46 (the majority) of the species were recorded during the 2024/2025 diurnal surveys.
- 4.3.2 Key observations included:
 - Golden plover recorded as a flyover only but circling and likely utilising arable habitats in the nearby landscape.
 - Lapwing and snipe were recorded as some of the only waterbird species, likely associated with the nearby designated sites. Gull numbers were also low.
 - The assemblage included several notable farmland species as well as species associated with watercourses and riparian habitats.
- 4.3.3 The results are shown in terms of peak and mean counts and temporal or spatial variation below.

Peak Count and Mean Count Summary

- 4.3.4 The overall peak and mean count for all recorded notable species are provided below.
- 4.3.5 As the majority of species peak counts across all visits are attributable to the diurnal surveys, the peak and mean counts trends broadly follow those shown in Plate 2.
- 4.3.6 Similar to Plate 2, the disparity between overall peak and overall mean counts is generally due to the irregular recording of most species; i.e. a single large count and then absent or in low numbers on other visits. Some species do however occur regularly, with snipe in particular having a mean count close to its overall peak due to consistent recording. Dunnock, woodpigeon and wren are also regularly occurring species with mean counts proportionally high to their overall peak.

Table 2 Non-breeding Walkover Peak and Mean Counts for Notable Species

Species (BTO code, common name, latin name)	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Overall Peak	Overall Mean
BH. Black-headed Gull (<i>Chroicocephalus ridibundus</i>)	1	4	10	-	-	10	3
CW. Cetti's Warbler (<i>Cettia cetti</i>)	10	4	3	4	1	10	4.6
D. Dunnock (<i>Prunella modularis</i>)	6	7	5	2	-	7	4
FF. Fieldfare (<i>Turdus pilaris</i>)	26	-	-	-	-	26	5.2
GP. Golden Plover (<i>Pluvialis apricaria</i>)	55	1	-	-	-	55	11.2

Species (BTO code, common name, latin name)	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Overall Peak	Overall Mean
GJ Greylag goose (<i>Anser anser</i>)	-	7	-	-	13	13	4
HG. Herring Gull (<i>Larus argentatus</i>)	4	17	4	6	-	17	6.2
K. Kestrel (<i>Falco tinnunculus</i>)	1	-	-	-	-	1	0.2
L. Lapwing (<i>Vanellus vanellus</i>)	62	1	-	-	-	62	12.6
LI. Linnet (<i>Linaria cannabina</i>)	2	-	-	1	-	2	0.6
MA. Mallard (<i>Anas platyrhynchos</i>)	1	1	-	-	-	1	0.4
MH. Moorhen (<i>Gallinula chloropus</i>)	5	1	1	3	1	5	2.2
MP. Meadow Pipit (<i>Anthus pratensis</i>)	-	-	1	4	-	4	1
MU. Mediterranean gull (<i>Ichthyaetus melanocephalus</i>)					12	12	2.4
RB Reed bunting (<i>Emberiza schoeniclus</i>)	1			2	-	2	0.6
RE Redwing (<i>Turdus iliacus</i>)	2	1			-	2	0.6
SD. Stock Dove (<i>Columba oenas</i>)	-	3	2	5	-	5	2
SG. Starling (<i>Sturnus vulgaris</i>)	-	-	12	-	-	12	2.4
SH Sparrowhawk (<i>Accipiter nisus</i>)	-	-	-	1		1	0.2
SN. Snipe (<i>Gallinago gallinago</i>)	15	12	13	17	-	17	11.4
ST. Song Thrush (<i>Turdus philomelos</i>)	1	1	4	3	-	4	1.8
WP. Woodpigeon (<i>Columba palumbus</i>)	49	17	6	36	25	49	26.6

Species (BTO code, common name, latin name)	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Overall Peak	Overall Mean
WR. Wren (<i>Troglodytes troglodytes</i>)	6	7	1	5	1	7	4

Temporal (Monthly) Summary

- 4.3.7 Temporal recording of many species varied across visits; most notably with the December visit recording the largest number of birds due to the presence of fieldfare, lapwing, golden plover and woodpigeon flocks. The January to March visits had broadly similar numbers of birds recorded, primarily due to the absence of large flocks of these species.
- 4.3.8 Some species had little temporal variation with dunnock, moorhen, song thrush, snipe and wren being consistently recorded across the majority of survey visits.

Distribution

- 4.3.9 The recording of birds within the inland areas generally followed the expected associations of species with their respective habitats. Waterbirds such as lapwing and snipe and the larger aggregations of gulls and woodpigeon utilised the centre of the arable fields, while the majority of species were more restricted to field boundary or adjacent scrub habitats.

4.4 Nocturnal winter survey

- 4.4.1 A total of 17 species (excluding birds not identified to species level) were recorded during the 2024 / 2025 nocturnal bird survey.
- 4.4.2 Note that while the recorded species assemblage includes passerines, the focus of the survey was on waterbirds (especially nocturnal activity of golden plover and other waterbirds where use of inland areas may differ to diurnal use) and primarily nocturnally active species (e.g. owls, nocturnal migrants).
- 4.4.3 The presentation of results below is focussed on waterbirds and other key nocturnal active species groups (e.g. owls) as the target species for the nocturnal surveys.
- 4.4.4 Full species lists and results can be found within Appendix B.

Peak Count and Mean Count Summary

- 4.4.5 The overall peak and mean counts for recorded key target species (by individual survey visit and overall) are provided below in Table 3, to show the most frequently recorded species. Given the reduced species diversity and numbers recorded during the nocturnal surveys, results are presented in a tabular format.

Table 3 Nocturnal Peak and Mean Counts for Key Target Species

Species (BTO code, common name, latin name)	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Overall Peak	Overall Mean
BO. Barn owl (<i>Tyto alba</i>)	-	-	-	-	1	1	0.2
FF. Fieldfare (<i>Turdus pilaris</i>)	1	-	-	-	-	1	0.2
GJ Greylag goose (<i>Anser anser</i>)	-	-	-	1	-	1	0.2
L. Lapwing (<i>Vanellus vanellus</i>)	-	5	-	-	-	5	1
MA. Mallard (<i>Anas platyrhynchos</i>)	1	-	-	-	-	1	0.2
MH. Moorhen (<i>Gallinula chloropus</i>)	-	1	2	3	1	3	1.4
RE. Redwing (<i>Turdus iliacus</i>)					7	7	1.4
SN. Snipe (<i>Gallinago gallinago</i>)	-	2	-	-	-	2	0.4
ST. Song Thrush (<i>Turdus philomelos</i>)	-	1	-	-	-	1	0.2
WK. Woodcock (<i>Scolopax rusticola</i>)	1	-	1	-	-	1	0.4
WN. Wigeon (<i>Mareca penelope</i>)	-	10	-	-		10	2
WP. Woodpigeon (<i>Columba palumbus</i>)	4	-	2	6	1	6	2.6

Temporal (Monthly) Summary

4.4.6 The low numbers of birds recorded make temporal trends less visible, though the recording of most waterbirds (greylag goose, wigeon, golden plover, lapwing and snipe) was during the first half of the survey season (December and January). Barn owl and redwing were only recorded within October.

Distribution

- 4.4.7 The nocturnal recording of birds generally followed that recorded during the diurnal surveys, with the expected associations of species with their respective typical habitats.

4.5 Diurnal and Nocturnal Comparison Summary

- 4.5.1 While species peak counts and means are not directly comparable between the diurnal and nocturnal surveys due to differences in coverage and survey technique, in comparison to the daytime surveys some key observations were noted:
- The presence of groups of golden plover during the diurnal surveys only.
 - Snipe were much more numerous on diurnal surveys though also recorded nocturnally. Lapwing were recorded using the Site during nocturnal surveys only.
 - Wigeon and woodcock were only recorded during the nocturnal surveys
 - Recording of occasional owl species (barn owl and little owl) nocturnally.

4.6 Additional site context

- 4.6.1 Seasonal crop rotation and management are likely to heavily influence use of the Site by wintering birds, noting field use between years.
- 4.6.2 A limited degree of light spill and noise from the adjacent A256 (along the Site southeastern boundary) did reach the Site. This light spill was reduced by the tall roadside hedgerow present such that most of the fields were in darkness (see Plate 3). The recorded bird aggregations and good species diversity in the ditch and field adjacent to the boundary, suggests that light spill did not significantly alter the use of the Site by birds.



Plate 3 Enhancement area at night

- 4.6.3 Individual fox (*Vulpes vulpes*) was recorded during several of the nocturnal surveys. Beaver (*Castor fiber*) was recorded to the north of the Site along the River Stour in December 2024 (single animal) and February 2025 (adult and sub-adult).

4.7 Existing use of the Site by golden plover

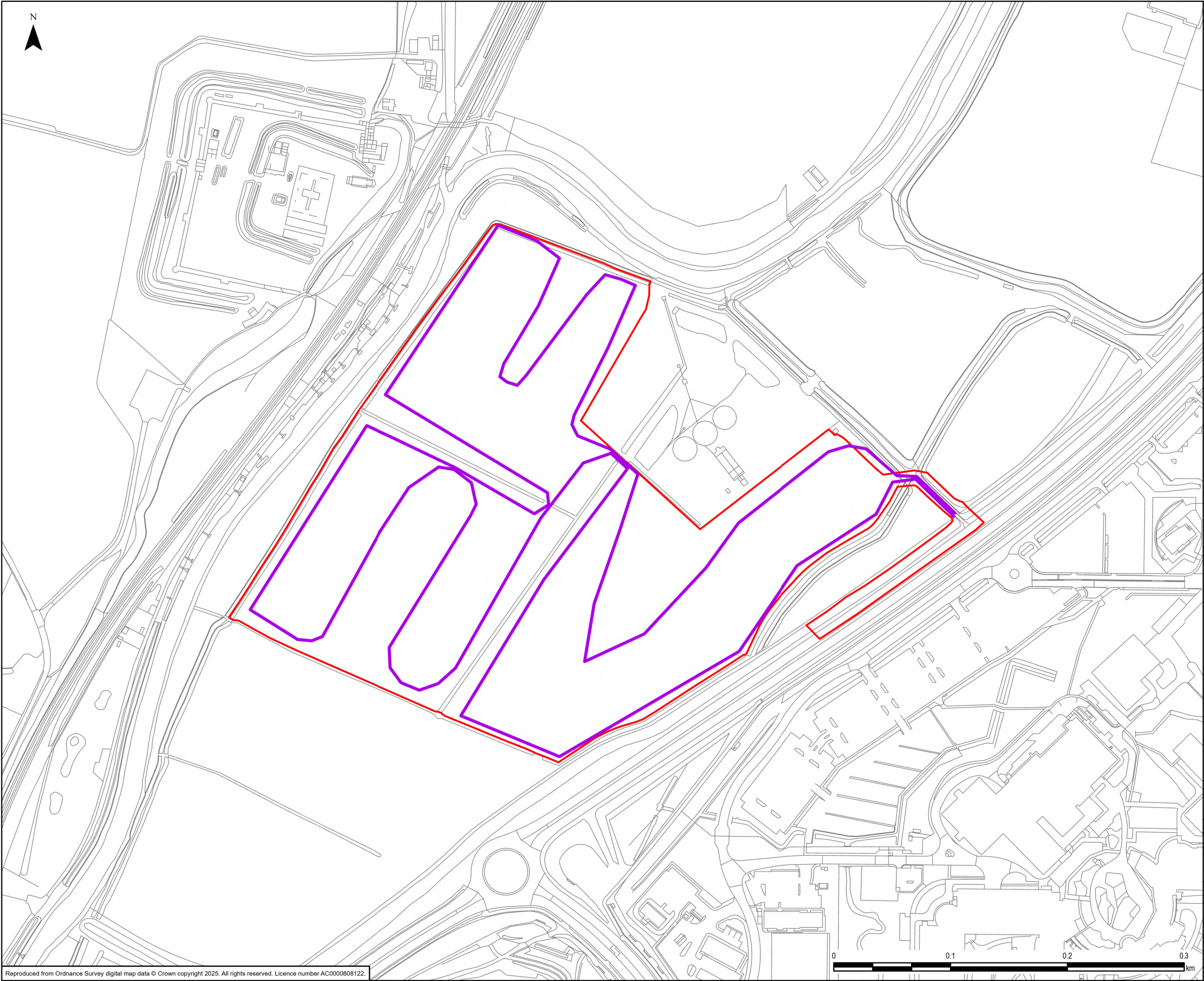
- 4.7.1 A flock of 55 golden plover were recorded in flight adjacent to the north of the Site (beyond the River Stour), with a single bird separately overflying the Site. While not showing direct use, this observation confirmed the presence of this species in the area. Therefore, there is considerable potential to enhance the fields for golden plover and there is no evidence it is already currently significantly used by the species, although they are in the area.
- 4.7.2 A small group of lapwings were recorded using the Site on a single nocturnal survey, illustrating that this species (and potentially golden plover as a similar and often associated species) use the Site occasionally.

5. References

- Austin, G.E., Calbrade, N.A., Birtles, G.A., Peck, K., Shaw, J.M. Wotton, S.R., Balmer, D.E. and Frost, T.M. (2023). *Waterbirds in the UK 2021/22: The Wetland Bird Survey and Goose & Swan Monitoring Programme*. Thetford: BTO/RSPB/JNCC/NatureScot.
- Balmer, D., Gillings, G., Caffrey, B., Swann, B., Downie, I. and Fuller, R. (2013). *Bird Atlas 2007-11: The Breeding and Wintering Birds of Britain and Ireland*. BTO.
- Bibby C.J, Burgess N.D, Hill D.A and Mustoe S. (2000). *Bird Census Techniques*. London.
- Bird Survey & Assessment Steering Group. (2023). *Bird Survey Guidelines for assessing ecological impacts, v.1.1.1*. Retrieved from Bird Survey & Assessment Steering Group: <https://birdsurveyguidelines.org>
- CIEEM. (2018). *Guidelines for ecological impact assessment in the United Kingdom and Ireland: Terrestrial, Freshwater and Coastal. Version 1.3 (Updated September 2024)*. Winchester: Chartered Institute of Ecology and Environmental Management.
- CIEEM. (2019). *Advice Note: On the Lifespan of Ecological Reports and Surveys. [April 2019]*. Winchester: Chartered Institute of Ecology and Environmental Management, Winchester.
- Clements, R. e. (2015). *Kent breeding bird atlas: 2008-2013*. Kent Ornithological Society.
- Clements, R. et al. (2015). *Kent breeding bird atlas: 2008-2013. Kent Ornithological Society*.
- Cutts et al. (2013). *Waterbird Disturbance Mitigation Toolkit Informing Estuarine Planning & Construction Projects. Institute of Estuarine & Coastal Studies*. University of Hull.
- Department for Environment, Food and Rural Affairs. (n.d.). *Multi-agency Geographic Information for the Countryside (MAGIC) Interactive Map*. Retrieved June 26, 2023, from MAGIC: <http://magic.defra.gov.uk>
- Frost, T.M., Austin,G.E., Hearn, R.D., McAvoy, S.G., Robinson, A.E., Stroud, D.A., Woodward, I.D. & Wotton, S.R. (2019). Population estimates of wintering waterbirds in Great Britain. . *British Birds March 2019*, 112, 16.
- Gillings, S., Fuller, R.J. & Sutherland, W. (2005). Diurnal studies do not predict nocturnal habitat choice and site selection of European Golden Plovers *Pluvialis apricaria* and Northern Lapwings *Vanellus vanellus*. *Auk*. 122.
- JNCC. (1993). *Information Sheet on Ramsar Wetlands (RIS)*. Retrieved from Joint Nature Conservation Committee: <https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwjNr86LI66RAxVfTkEAHTAJN1AQFnoECBwQAQ&url=https%3A%2F%2Fjncc.gov.uk%2Fjncc-assets%2FRIS%2FUK13007.pdf&usg=AOvVaw1ERxNVgZFGO67EhWxqeKGd&opi=89978449>
- JNCC. (2015). *Standard Data Form for sites within the 'UK national site network of European sites'*. Retrieved from https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwievN34l66RAxUJUEEAHcJeMeAQFnoECCEQAQ&url=https%3A%2F%2Fjncc.gov.uk%2Fjncc-assets%2FSPA-N2K%2FUK9001031.pdf&usg=AOvVaw2aqzsKYxmdaiGUKm_J-Dr3&opi=89978449
- JNCC. (2022). *Information Sheet on Ramsar Wetlands (RIS). Thanet Coast and Sandwich Bay Ramsar*. Retrieved March 27, 2023, from <http://jncc.gov.uk/our-work/ramsar-Sites>
- JNCC. (2022). *Standard Data Form for sites within the 'UK National Site Network of European Sites'*. Retrieved 03 27, 2025, from jncc.gov
- Kent Wildlife Trust. (2022). *Local Wildlife Sites in Kent. Criteria for Selection and Delineation. Version 1.7*. Tyland Barn, Kent: Kent Wildlife Trust.
- KOS . (2024). *Kent Bird Report 2022*. Kent Ornithological Society.
- 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)*. Retrieved March 28, 2023, from Natural England: <https://publications.naturalengland.org.uk/publication/6087702630891520>
- 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 March 2019.
- Natural Environment and Rural Communities. (2006). *Act 2006: Section 41: Habitats and species of principal importance in England*. Retrieved March 27, 2025, from Gov.UK: <https://www.gov.uk/government/publications/habitats-and-species-of-principal-importance-in-england>

- Sandwich Bay Bird Observatory Trust. (2020). *Wading Bird Monitoring of the Thanet Coast SPA in Jan/Feb 2020*. Retrieved March 29, 2024, from Sandwich Bay Bird Observatory Trust: <https://www.thanet.gov.uk/wp-content/uploads/2020/12/Thanet-Wader-Survey-2020.pdf>
- Scottish Natural Heritage. (2017). *Recommended bird survey methods to inform impact assessment of onshore wind farms. March 2017, Version 2*. Scottish Natural Heritage.
- Stanbury, A. J., Eaton, M. A., Aebischer, N. J., Balmer, D., Brown, A. F., Douse, A., Lindley, P., McCulloch, N., Noble, D.G. & Win, I. (2021). Birds of Conservation Concern 5. *British Birds*, 114, 25.
- Wetlands International. (2012). *Waterbird Population Estimates, Fifth Edition. Summary Report*. The Netherlands: Wetlands International.
- Woodward, I., Aebischer, N., Burnell, D., Eaton, M., Frost, T., Hall, C., Stroud, S. & Noble, D. (2020). *APEP 4 Population estimates of birds in Great Britain and the United Kingdom. British Birds: 113. BTO*. Retrieved April 5, 2023, from <https://www.bto.org/our-science/publications/peer-reviewed-papers/apep-4-population-estimates-birds-great-britain-and%20-%20accessed%2005/04/53>
- Woodward, I.D., Calbrade, N.A., Birtles, G.A., Feather, A., Peck, K., Wotton, S.R., Shaw, J.M., Balmer, D.E. & Frost, T.M.(2024). WeBS annual report (2022/23). (2022/2023). *WeBS annual report*. Retrieved April 25, 2025, from BTO: <https://www.bto.org/our-work/science/publications/reports/waterbirds-uk/2022-23>

Appendix A Distribution Figures



- Legend
- Kent Onshore Scheme Boundary
 - Wintering Birds Offsite Transect Route (2024-25)

0	30/05/2025	ENVIRONMENTAL STATEMENT	EB	DF	JR
Rev	Date	Description	GIS	Chk	App
nationalgrid					
Scheme: SEA LINK					
Document Title: KENT WINTERING BIRD OFFSITE TRANSECT ROUTES (2024-2025)					
Creator: EB	Date: 30/05/2025	Checker: DF	Date: 30/05/2025	Approver: JR	Date: 30/05/2025
Document Ref: FIGURE 1	Scale: 1:3,000	Format: A3	Sheets: 1	Rev: 0	



Legend

Kent Onshore Scheme Boundary

Wintering Birds Offsite Transect Route (2024-25)

Winter Birds Daytime Survey - Species Points (February 2025)

BoCC Red List Species

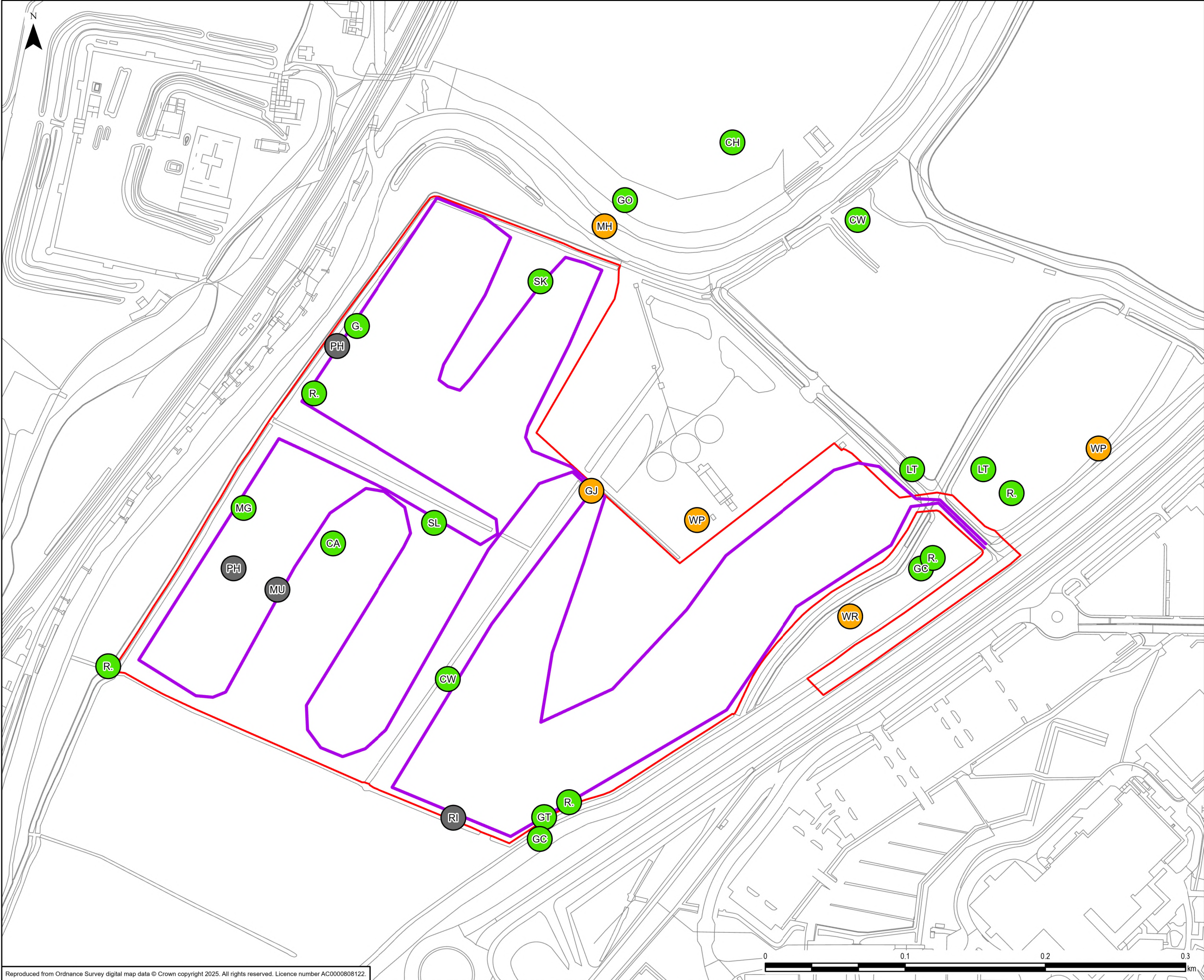
BoCC Amber List Species

BoCC Green List Species

Species Not Assessed

Label Codes (BTO) are given in Annex D Table 9.

0	09/06/2025	WINTERING BIRDS	EB	DF	JR
Rev	Date	Description	GIS	Chk	App
nationalgrid					
Scheme: SEA LINK					
Document Title: KENT WINTER BIRD DAYTIME SURVEY RESULTS - OFFSITE FEBRUARY 2025					
Creator: EB	Date: 09/06/2025	Checker: DF	Date: 09/06/2025	Approver: JR	Date: 09/06/2025
Document Ref: FIGURE 2C	Scale: 1:2,500	Format: A3	Sheets: 1	Rev: 0	



Legend

Kent Onshore Scheme Boundary

Wintering Birds Offsite Transect Route (2024-25)

Winter Birds Daytime Survey - Species Points (October 2025)

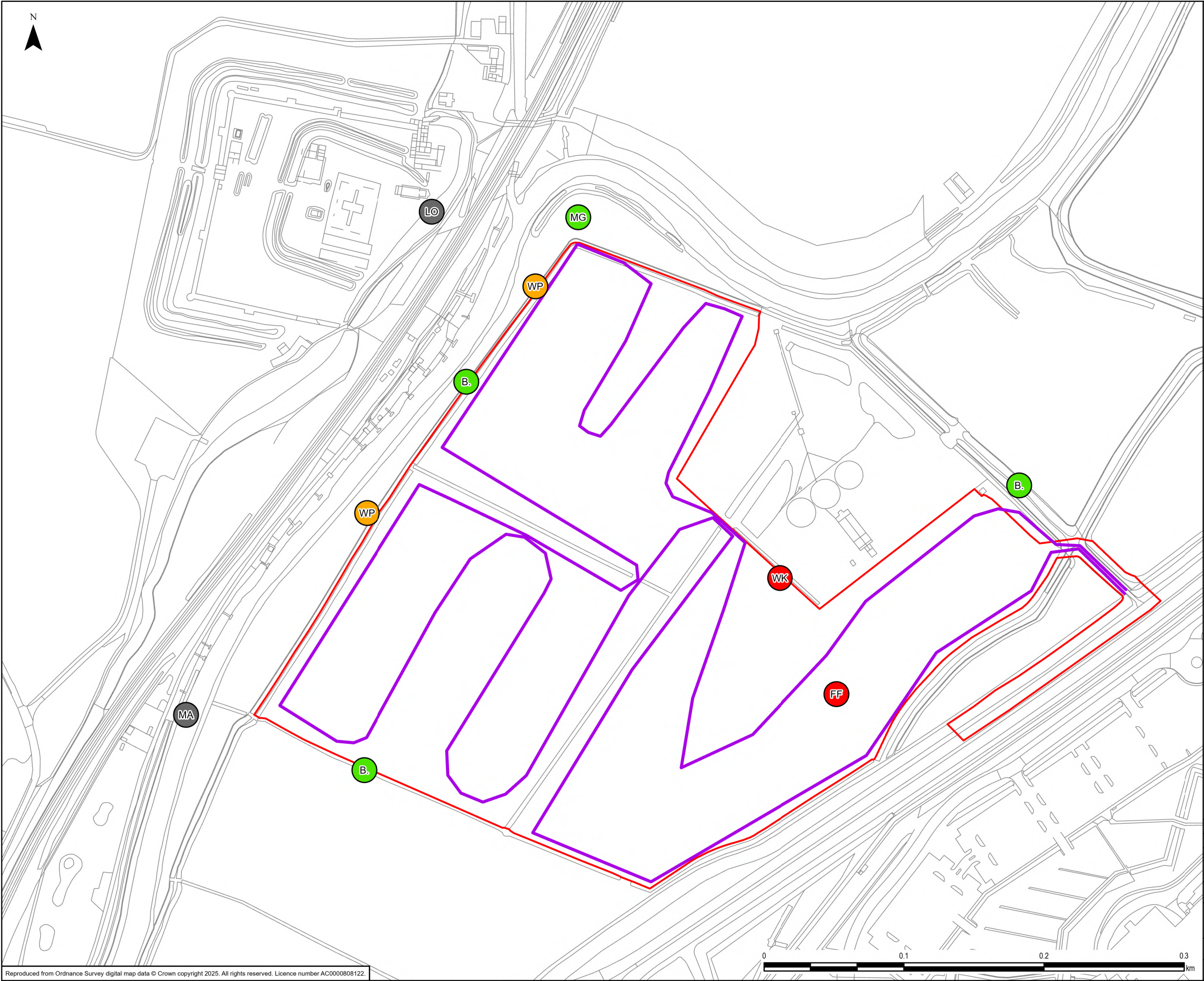
BoCC Amber List Species

BoCC Green List Species

Species Not Assessed

Label Codes (BTO) are given in Annex D Table 9.

0	26/11/2025	WINTERING BIRDS	EB	DF	JR
Rev	Date	Description	GIS	Chk	App
nationalgrid					
Scheme: SEA LINK					
Document Title: KENT WINTER BIRD DAYTIME SURVEY RESULTS - OFFSITE OCTOBER 2025					
Creator: EB	Date: 26/11/2025	Checker: DF	Date: 26/11/2025	Approver: JR	Date: 26/11/2025
Document Ref: FIGURE 2E	Scale: 1:2,500	Format: A3	Sheets: 1	Rev: 0	



Legend

Kent Onshore Scheme Boundary

Wintering Birds Offsite Transect Route (2024-25)

Winter Birds Nocturnal Survey - Species Points (December 2024)

BoCC Red List Species

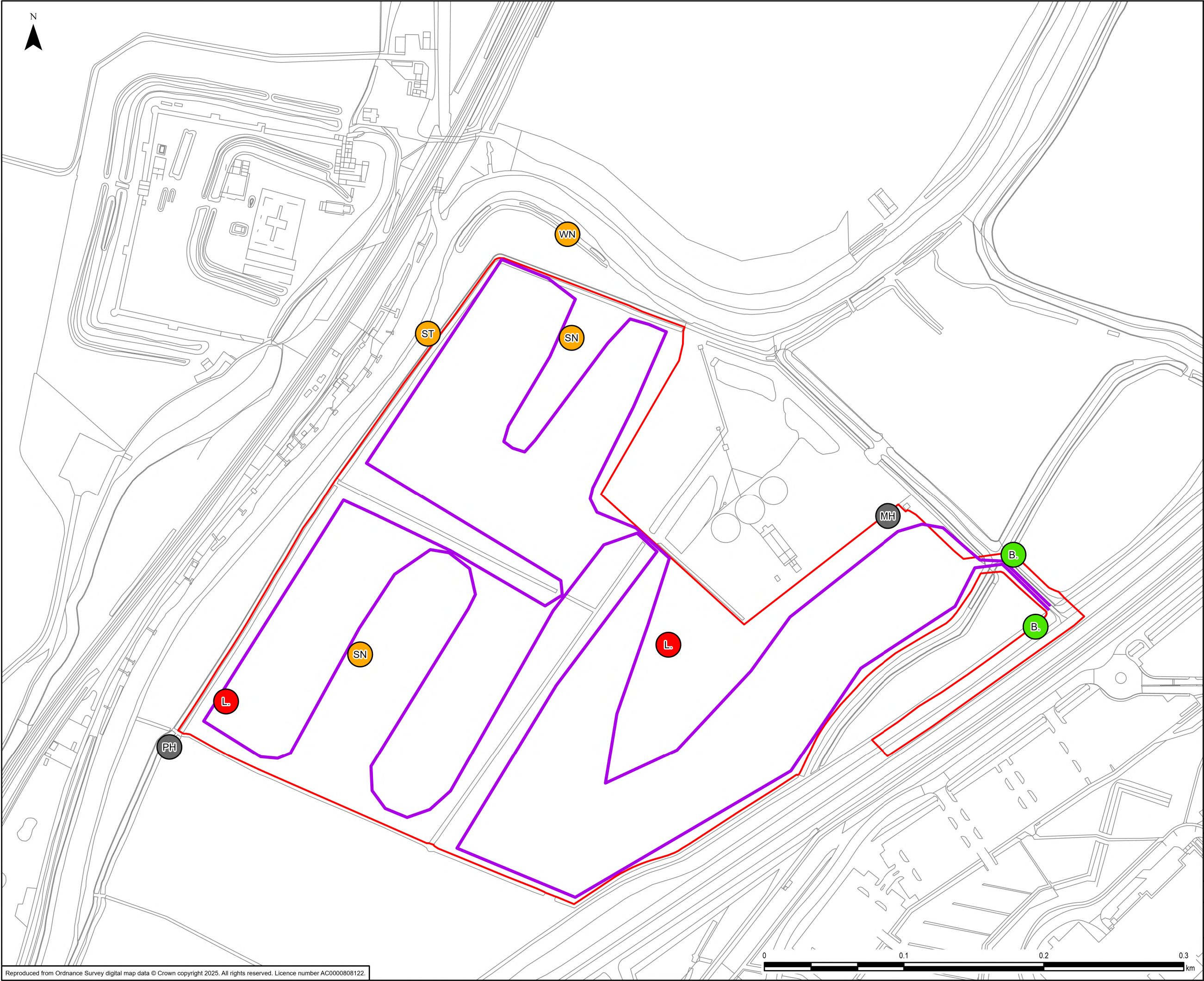
BoCC Amber List Species

BoCC Green List Species

Species Not Assessed

Label Codes (BTO) are given in Annex D Table 9.

0	30/05/2025	WINTERING BIRDS			EB	DF	JR
Rev	Date	Description			GIS	Chk	App
nationalgrid							
Scheme:		SEA LINK					
Document Title: KENT WINTER BIRD NOCTURNAL SURVEY RESULTS - OFFSITE DECEMBER 2024							
Creator: EB	Date: 30/05/2025	Checker: DF	Date: 30/05/2025	Approver: JR	Date: 30/05/2025		
Document Ref: FIGURE 3A	Scale: 1:2,500	Format: A3	Sheets: 1	Rev: 0			



Legend

Kent Onshore Scheme Boundary

Wintering Birds Offsite Transect Route (2024-25)

Winter Birds Nocturnal Survey - Species Points (January 2025)

BoCC Red List Species

BoCC Amber List Species

BoCC Green List Species

Species Not Assessed

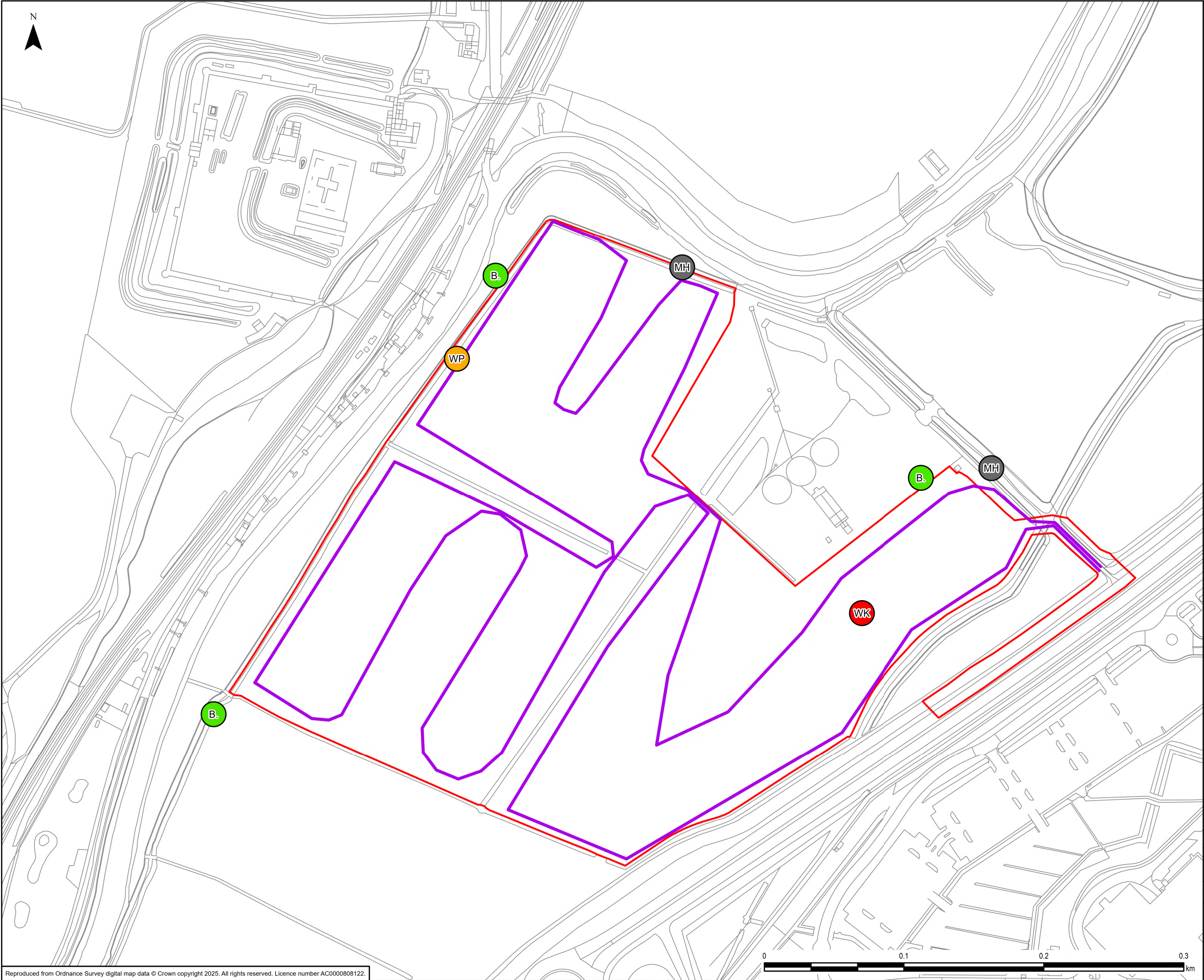
Label Codes (BTO) are given in Annex D Table 9.

0	09/06/2025	WINTERING BIRDS	EB	DF	JR
Rev	Date	Description	GIS	Chk	App

Scheme: SEA LINK

Document Title: KENT WINTER BIRD NOCTURNAL SURVEY RESULTS - OFFSITE JANUARY 2025

Creator: EB	Date: 09/06/2025	Checker: DF	Date: 09/06/2025	Approver: JR	Date: 09/06/2025
Document Ref: FIGURE 3B	Scale: 1:2,500	Format: A3	Sheets: 1	Rev: 0	



Legend

Kent Onshore Scheme Boundary

Wintering Birds Offsite Transect Route (2024-25)

Winter Birds Nocturnal Survey - Species Points (February 2025)

BoCC Red List Species

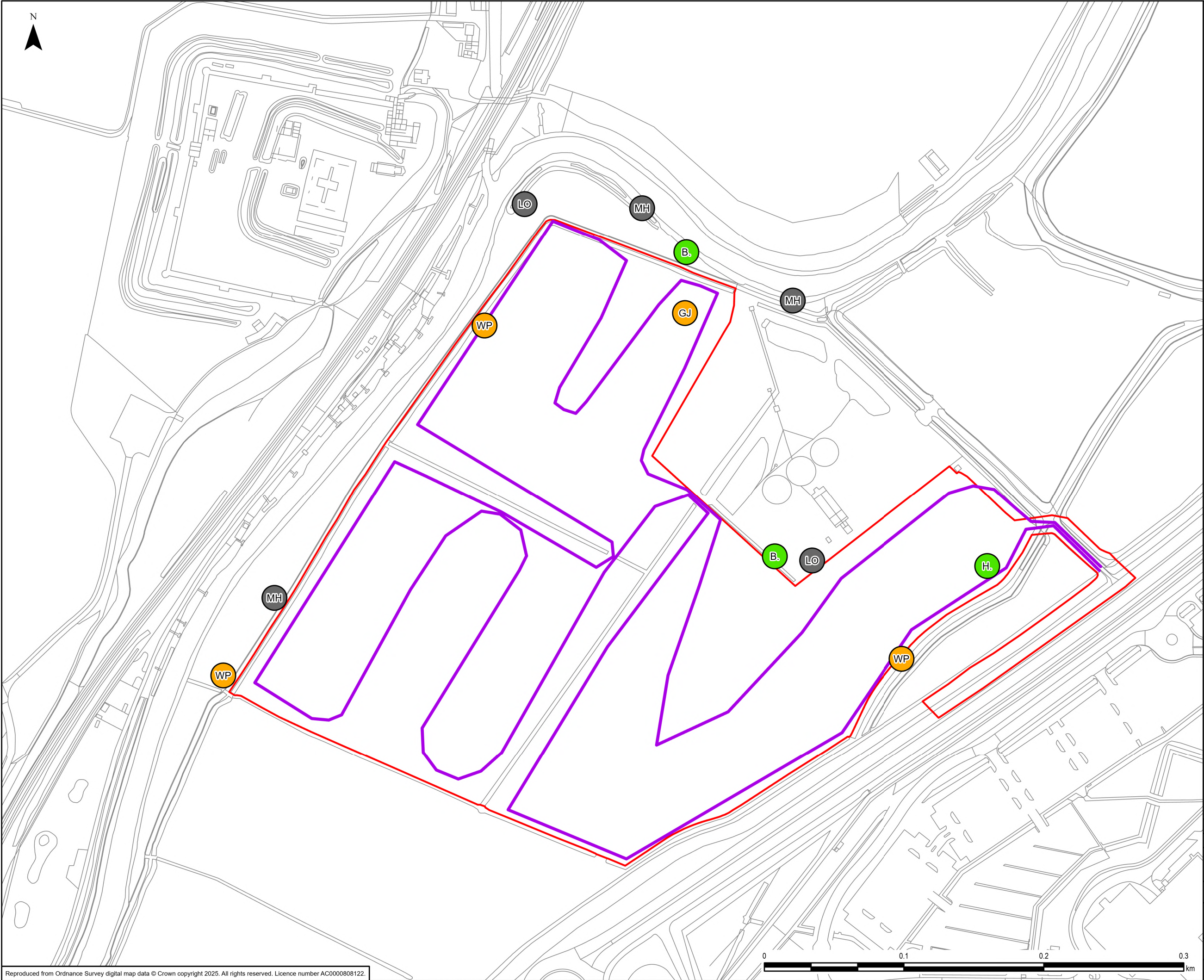
BoCC Amber List Species

BoCC Green List Species

Species Not Assessed

Label Codes (BTO) are given in Annex D Table 9.

0	09/06/2025	WINTERING BIRDS	EB	DF	JR
Rev	Date	Description	GIS	Chk	App
nationalgrid					
Scheme: SEA LINK					
Document Title: KENT WINTER BIRD NOCTURNAL SURVEY RESULTS - OFFSITE FEBRUARY 2025					
Creator: EB	Date: 09/06/2025	Checker: DF	Date: 09/06/2025	Approver: JR	Date: 09/06/2025
Document Ref: FIGURE 3C	Scale: 1:2,500	Format: A3	Sheets: 1	Rev: 0	



Legend

Kent Onshore Scheme Boundary

Wintering Birds Offsite Transect Route (2024-25)

Winter Birds Nocturnal Survey - Species Points (March 2025)

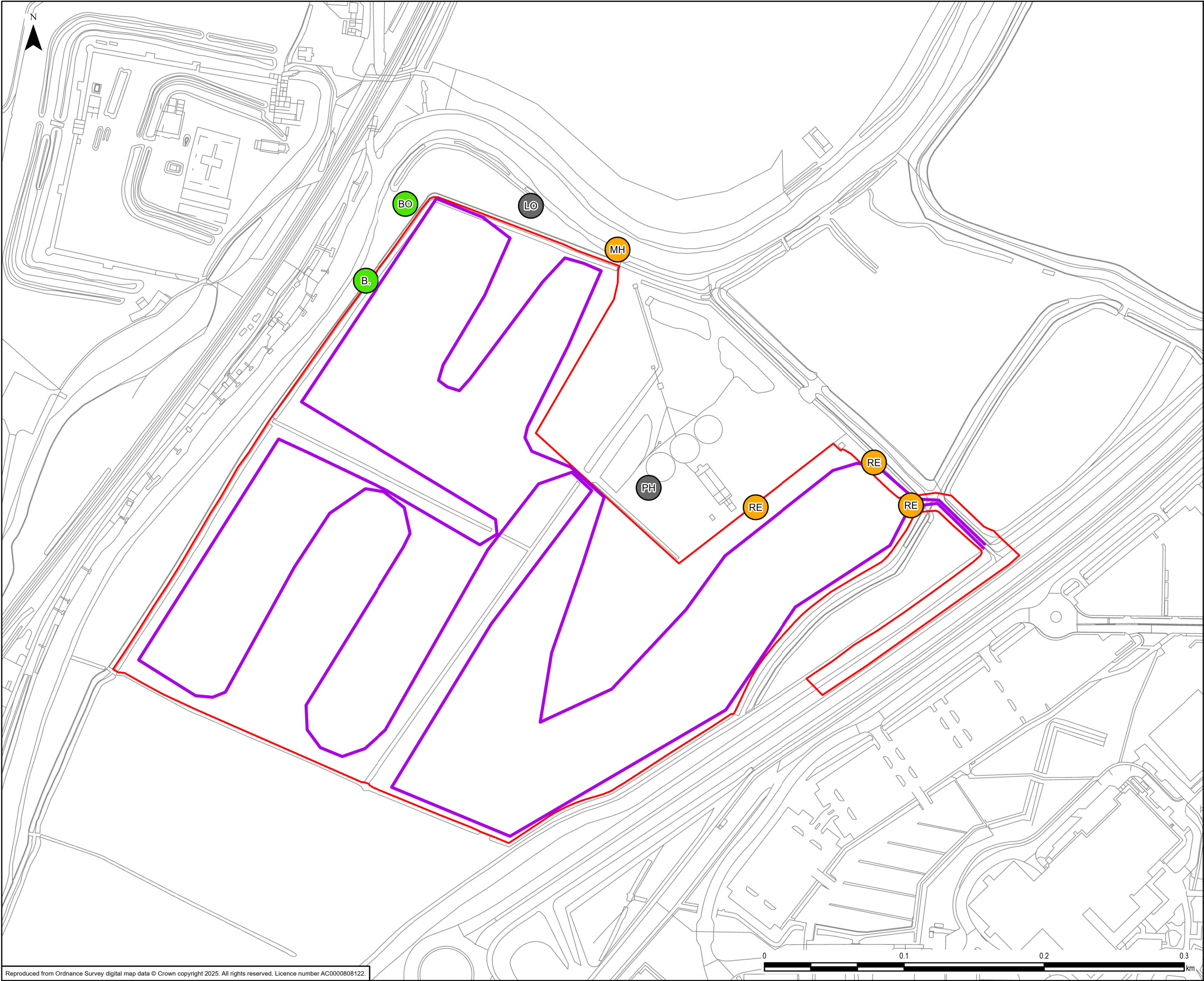
BoCC Amber List Species

BoCC Green List Species

Species Not Assessed

Label Codes (BTO) are given in Annex D Table 9.

0	09/06/2025	WINTERING BIRDS	EB	DF	JR
Rev	Date	Description	GIS	Chk	App
nationalgrid					
Scheme: SEA LINK					
Document Title: KENT WINTER BIRD NOCTURNAL SURVEY RESULTS - OFFSITE MARCH 2025					
Creator: EB	Date: 09/06/2025	Checker: DF	Date: 09/06/2025	Approver: JR	Date: 09/06/2025
Document Ref: FIGURE 3D	Scale: 1:2,500	Format: A3	Sheets: 1	Rev: 0	



Legend

Kent Onshore Scheme Boundary

Wintering Birds Offsite Transect Route (2024-25)

Winter Birds Nocturnal Survey - Species Points (October 2025)

BoCC Amber List Species

BoCC Green List Species

Species Not Assessed

Label Codes (BTO) are given in Annex D Table 9.

0	26/11/2025	WINTERING BIRDS	EB	DF	JR
Rev	Date	Description	GIS	Chk	App

nationalgrid

Scheme:SEA LINK

Document Title:
KENT WINTER BIRD NOCTURNAL SURVEY RESULTS - OFFSITE
OCTOBER 2025

Creator: EB	Date: 26/11/2025	Checker: DF	Date: 26/11/2025	Approver: JR	Date: 26/11/2025
Document Ref: FIGURE 3E	Scale: 1:2,500	Format: A3	Sheets: 1	Rev: 0	

Reproduced from Ordnance Survey digital map data © Crown copyright 2025. All rights reserved. Licence number AC0000808122.

Document Path: L:\Legacy\UKMCR1FP002-V1IE\Proposal\3512\SEAL GIS\02_Maps\Wintering Birds Kent 2024-25\Offsite\Sea_Link_WinterBirds_Fig3e_Kent_WinterBirdNocturnalSurveyResults_Offsite_October25_20251126_EB.aprx

29

Appendix B Detailed Survey Data

Species (BTO code, common name, latin name)	Conservat ion Status	Diurnal							Nocturnal						
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Overall Peak	Mean	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Overall Peak	Mean
		01.11.24	14.12.24	09.02.25	12.03.25	17.10.25			01.11.24	14.12.24	09.02.25	11.03.25	16.10.25		
B. Blackbird (<i>Turdus merula</i>)	Green	5	7	3	3	-	7	3.6	5	7	3	3	1	7	3
BH. Black-headed Gull (<i>Chroicocephalus ridibundus</i>)	Amber: WL, WI	1	4	10	-	-	10	3	-	-	-	-	-	-	-
BO. Barn owl (<i>Tyto alba</i>)	WCA Schedule 1 species Green	-	-	-	-		-	-	-	-	-	-	1	1	0.2
BT. Blue Tit (<i>Cyanistes caeruleus</i>)	Green	4	3	6	5		6	3.6	-	-	-	-	-	-	-
BZ. Buzzard (<i>Buteo buteo</i>)	Green	-	-	1	1	-	1	0.4	-	-	-	-	-	-	-
C. Carrion Crow (<i>Corvus corone</i>)	Green	3	3	2	4	-	4	2.4	-	-	-	-		-	-
CA. Cormorant (<i>Phalacrocorax carbo</i>)	Green	-	300 (in flight)	1	-	1	300	60.4	-	-	-	-	-	-	-
CC. Chiffchaff (<i>Phylloscopus collybita</i>)	Green	2	-	-	1	-	2	0.6	-	-	-	-	-	-	-

Species (BTO code, common name, latin name)	Conservat ion Status	Diurnal							Nocturnal						
		Visit 1 01.11.24	Visit 2 14.12.24	Visit 3 09.02.25	Visit 4 12.03.25	Visit 5 17.10.25	Overall Peak	Mean	Visit 1 01.11.24	Visit 2 14.12.24	Visit 3 09.02.25	Visit 4 11.03.25	Visit 5 16.10.25	Overall Peak	Mean
CH. Chaffinch (<i>Fringilla coelebs</i>)	Green	2	6	1	1	1	6	2.2	-	-	-	-	-	-	-
CW. Cetti's Warbler (<i>Cettia cetti</i>)	WCA Schedule 1 species Green	10	4	3	4	2	10	4.6	-	-	-	-	-	-	-
D. Dunnock (<i>Prunella modularis</i>)	Section41 species. Amber: BDMp2	6	7	5	2	-	7	4	-	-	-	-	-	-	-
EG. Egyptian Goose (<i>Alopoche n aegyptiaca)</i>	Not assessed / introduced	-	2	-	-	-	2	0.4	-	-	-	-	-	-	-
FF. Fieldfare (<i>Turdus pilaris</i>)	WCA Schedule 1 species Red: BDP1/2, BDr1, BDMr2, BR	26	-	-	-	-	26	5.2	1	-	-	-	-	1	0.2
G. Green woodpeck er (<i>Picus viridis</i>)	Green	-	-	-	-	1	1	0.2	-	-	-	-	-	-	-
GC. Goldcrest (<i>Regulus regulus</i>)	Green	-	-	-	1	2	2	0.6	-	-	-	-	-	-	-

Species (BTO code, common name, latin name)	Conservat ion Status	Diurnal							Nocturnal						
		Visit 1 01.11.24	Visit 2 14.12.24	Visit 3 09.02.25	Visit 4 12.03.25	Visit 5 17.10.25	Overall Peak	Mean	Visit 1 01.11.24	Visit 2 14.12.24	Visit 3 09.02.25	Visit 4 11.03.25	Visit 5 16.10.25	Overall Peak	Mean
GJ Greylag goose (<i>Anser anser</i>)	Amber WL, - WI	-	7	-	-	13	13	4	-	-	-	1	-	1	0.2
GO. Goldfinch (<i>Carduelis carduelis</i>)	Green	3	1	-	3	8	8	3	-	-	-	-	-	-	-
GP. Golden Plover (<i>Pluvialis apricaria</i>)	Birds Dir An1 Green	55 (in flight)	1 (in flight)	-	-	-	55	11.2	-	-	-	-	-	-	-
GS. Great spotted Woodpeck er (<i>Dendroco ps major</i>)	Green	-	1	-	1	-	1	0.2	-	-	-	-	-	-	-
GT. Great Tit (<i>Parus major</i>)	Green	1	2	4	1	1	4	1.8	-	-	-	-	-	-	-
H. Grey Heron (<i>Ardea cinerea</i>)	Green	-	-	-	3	-	3	0.6	-	-	-	1	-	1	0.2
HG. Herring Gull (<i>Larus argentatus</i>)	Section 41 species Red: BDp2, WDp1, BI, WI	4	17	4	6	-	17	6.2	-	-	-	-	-	-	-
J. Jay (<i>Garrulus glandarius</i>)	Green	-	1	-	-	-	1	0.2	-	-	-	-	-	-	-

Species (BTO code, common name, latin name)	Conservat ion Status	Diurnal							Nocturnal						
		Visit 1 01.11.24	Visit 2 14.12.24	Visit 3 09.02.25	Visit 4 12.03.25	Visit 5 17.10.25	Overall Peak	Mean	Visit 1 01.11.24	Visit 2 14.12.24	Visit 3 09.02.25	Visit 4 11.03.25	Visit 5 16.10.25	Overall Peak	Mean
JD. Jackdaw (<i>Coloeus monedula</i>)	Green	4	1	5	15	-	15	5	-	-	-	-	-	-	-
K. Kestrel (<i>Falco tinnunculus</i>)	Amber: BDMp1/2	1	-	-	-	-	1	0.2	-	-	-	-	-	-	-
L. Lapwing (<i>Vanellus vanellus</i>)	Section 41 species Red: BDp2, ERLOB, BDMp1, WDMP2, WI	62	1	-	-	-	62	12.6	-	5	-	-	-	5	1
LI. Linnet (<i>Linaria cannabina</i>)	Section 41 species Red: BDp2	2	-	-	1	-	2	0.6	-	-	-	-	-	-	-
LO. Little Owl (<i>Athene noctua</i>)	Not assessed / introduced	-	-	-	-	-	-	-	1	-	-	2	1	2	0.8
LT. Long-tailed Tit (<i>Aegithalos caudatus</i>)	Green	10	-	-	-	4	10	2.8	-	-	-	-	-	-	-
MA. Mallard (<i>Anas platyrhynchos</i>)	Amber: WDMp1/2	1	1	-	-	-	1	0.4	1	-	-	-	-	1	0.2
MG. Magpie (<i>Pica pica</i>)	Green	4	6	2	7	4	7	3.6	1	-	-	-	-	1	0.2

Species (BTO code, common name, latin name)	Conservat ion Status	Diurnal							Nocturnal						
		Visit 1 01.11.24	Visit 2 14.12.24	Visit 3 09.02.25	Visit 4 12.03.25	Visit 5 17.10.25	Overall Peak	Mean	Visit 1 01.11.24	Visit 2 14.12.24	Visit 3 09.02.25	Visit 4 11.03.25	Visit 5 16.10.25	Overall Peak	Mean
MH. Moorhen (<i>Gallinula chloropus</i>)	Amber: BDMp2	5	1	1	3	1	5	2.2	-	1	2	3	1	3	1.4
MP. Meadow Pipit (<i>Anthus pratensis</i>)	Amber: BDMp2	-	-	1	4		4	1	-	-	-	-	-	-	-
MU. Mediterranean gull (<i>Ichthyaeetus melanocephalus</i>)	Birds Dir: An1 WCA Sch1, Amber: BL	-	-	-	-	12 (flyover)	12	2.4	-	-	-	-	-	-	-
PH. Pheasant (<i>Phasianus colchicus</i>)	Green	6	1	1	3	5	6	3.2	-	1	-	-	2	2	0.6
R. Robin (<i>Erithacus rubecula</i>)	Green	6	3	4	4	5	6	4.4	-	-	-	-	-	-	-
RB. Reed Bunting (<i>Emberiza schoeniclus</i>)	Section 41 species. Amber: BDMp2	1	-	-	2	-	2	0.6	-	-	-	-	-	-	-
RE. Redwing (<i>Turdus iliacus</i>)	WCA Schedule 1 species. Red: BDMr1/2, BR	2	1	-	-	-	2	0.6	-	-	-	-	7	7	1.4
RI. Ring-necked Parakeet	Not assessed / introduced	-	10	8	-	4	10	4.4	-	-	-	-	-	-	-

Species (BTO code, common name, latin name)	Conservation Status	Diurnal							Nocturnal						
		Visit 1 01.11.24	Visit 2 14.12.24	Visit 3 09.02.25	Visit 4 12.03.25	Visit 5 17.10.25	Overall Peak	Mean	Visit 1 01.11.24	Visit 2 14.12.24	Visit 3 09.02.25	Visit 4 11.03.25	Visit 5 16.10.25	Overall Peak	Mean
(<i>Psittacula krameri</i>)															
SD. Stock Dove (<i>Columba oenas</i>)	Amber: BL	-	3	2	5	-	5	2	-	-	-	-	-	-	-
SG. Starling (<i>Sturnus vulgaris</i>)	Section 41 species. Red: BDp1	-	-	12	-	-	12	2.4	-	-	-	-	-	-	-
SH. Sparrowhawk (<i>Accipiter nisus</i>)	Amber: BDMp1	-	-	-	1	-	1	0.2	-	-	-	-	-	-	-
SI. Siskin (<i>Spinus spinus</i>)	Green	-	-	-	-	1 (flyover)	1	0.2	-	-	-	-	-	-	-
SL. Swallow (<i>Hirundo rustica</i>)	Green	-	-	-	-	9 (flyover)	9	1.8						-	-
SN. Snipe (<i>Gallinago gallinago</i>)	Amber: ERLOB, WDMp1, BDMr2	15	12	13	17	-	17	11.4	-	2	-	-	-	2	0.4
ST. Song Thrush (<i>Turdus philomelos</i>)	Section 41 species. Amber: BDMp2	1	1	4	3	-	4	1.8	-	1	-	-	-	1	0.2
WA. Water rail (<i>Rallus aquaticus</i>)	Green	1	2	-	-	-	2	0.6	-	-	-	-	-	-	-
WK. Woodcock	Red: BDr2; BDMr1	-	-	-	-	-	-	-	1	-	1	-	-	1	0.4

Species (BTO code, common name, latin name)	Conservat ion Status	Diurnal							Nocturnal						
		Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Overall	Mean	Visit 1	Visit 2	Visit 3	Visit 4	Visit 5	Overall	Mean
		01.11.24	14.12.24	09.02.25	12.03.25	17.10.25	Peak		01.11.24	14.12.24	09.02.25	11.03.25	16.10.25	Peak	
(<i>Scolopax rusticola</i>)															
WN. Wigeon (<i>Mareca penelope</i>)	Amber: WL, WI	-	-	-	-	-	-	-	-	10	-	-	-	10	2
WP. Woodpige on (<i>Columba palumbus</i>)	Amber: BI	49	17	6	36	25	49	26.6	4	-	2	6	1	6	2.6
WR. Wren (<i>Troglodyt es troglodytes</i>)	Amber: BI	6	7	1	5	1	7	4	-	-	-	-	1	-	-