Meridian Solar Farm

EN010169

Volume 6

Environmental Statement

6.3 ES Appendix 9-4: Wintering Bird Survey Report 2022-2023

APFP Regulation 5(2)(a)

Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009

March 2026

This report was issued with the Preliminary Environmental Information Report (PEIR) (April 2025) and uses the Scheme terminology and extents defined at that stage. Since the preparation of the PEIR, there have been minor updates to the Scheme, however, these do not impact on the conclusions of this report.

Contents

Abbreviations & Acronyms

The following list is compiled of the abbreviations and acronyms used throughout this report:

Term	Definition
BAP	Biodiversity Action Plan
BBS	Breeding Bird Survey
BoCC	Birds of Conservation Concern
BSc	Bachelor of Science Degree
BTO	British Trust for Ornithology
CBC	Common Bird Census
CIEEM	Chartered Institute Ecology & Environmental Management
CWS	County Wildlife Site
DCO	Development Consent Order
EIA	Ecological Impact Assessment
HND	Higher National Diploma
HRA	Habitat Regulations Assessment
IIWS	Internationally Important Wildlife Site
JNCC	Joint Nature Conservation Committee
LNR	Local Nature Reserve
LWS	Local Wildlife Site
MAGIC	Multi-Agency Geographic Information for the Countryside
NE	Natural England
NNR	National Nature Reserve
NPPF	National Planning Policy Framework
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
SAC	Special Area of Conservation
SINC	Sites of Importance for Nature Conservation
SPA	Special Protection Area
SPI	Species of Principal Importance
SSSI	Site of Special Scientific Interest
UK	United Kingdom
WeBS	Wetland Bird Survey
WBS	Winter Bird Survey
WBBS	Waterways Breeding Bird Surveys

Executive Summary

Temple was commissioned by Meridian Solar Farm Limited in September 2022 to carry out a suite of wintering bird surveys north-east of Crowland, Lincolnshire, to provide baseline ecological data to inform Meridian Solar Farm.

The aim of the wintering bird surveys was to provide robust data on the assemblage of wintering birds present to inform the evolving design of the Scheme and to be incorporated into the Ecological Impact Assessment (EIA), which would be submitted with the DCO application.

Six surveys were carried out between October 2022 and March 2023 to determine the wintering bird assemblage present within the zone of influence of the Scheme. Surveys were completed against the extent of the Scheme at the time of survey, the 'Study Area', as shown in Appendix 1, Figure 1. The main findings were as follows:

- Four internationally important wildlife sites (IIWS), (Ramsar sites, Special Protection Areas (SPA) or Special Area for Conservation (SAC)) are present within a 15km radius of the Study Area, although only two, the Nene Washes Ramsar site and the Nene Washes SPA, are listed for their ornithological importance.
- A total of 68 species were recorded during the surveys, including 42 notable species. Nine Schedule 1 breeding bird species were recorded, 13 species were Birds of Conservation Concern (BoCC) Red-list, 23 species were BoCC Amber-list and 11 Species of Priority Importance (SPI). Twelve Local Biodiversity Action Plan (Lincolnshire BAP) species were recorded within the Study Area.
- The Study Area does not support greater than 10% of the county population and as such does not qualify as being of county importance. Similarly, the Site does not qualify for selection as a Local Wildlife Sites (LWS) when compared against the criteria published by the County Wildlife Sites (CWS) Partnership (Year).
- Only one species listed in the citations for the IIWS was recorded during the surveys.

- Using the nature conservation evaluation for notable bird species assemblages (CIEEM, 2018), the wintering bird assemblage recorded within the Study Area during surveys is considered to be of **Local** importance, due to the presence of 42 notable bird species.

Consideration therefore needs to be given to ensure that areas occupied by notable species are not subject to any impacts from the proposed development. General recommendations are outlined within this report for avoidance and mitigation.

The information contained within this report will be used to inform the design of the Scheme and the mitigation strategy developed alongside the EIA.

1 Introduction

BACKGROUND

1.1 Temple was commissioned by Meridian Solar Farm Limited in September 2022 to carry out a suite of wintering bird surveys on land to the north-east of Crowland, Lincolnshire to provide baseline ecological.

1.2 The Scheme consists of three elements, the 'PV Area', the 'Grid Connection', and the 'Inter-Array Connection'. The PV Area is the land proposed to contain the solar PV infrastructure, solar PV supporting infrastructure and Battery Energy Storage System (BESS) and On-Site Substation Compounds and is the subject of this report. The survey covered land within a target survey area (referred to as the 'Study Area') to include the anticipated development area and adjacent land as shown in Appendix 1, Figure 1. The Grid Connection and Inter-Array Areas were excluded from this study as they were not defined at the time of survey.

SCOPE OF THE REPORT

1.1 This report details the methods and findings of the wintering bird surveys undertaken by Temple between October 2022 and March 2023. The aim of the survey was to identify and categorise the wintering bird assemblage within the Study Area and to map the distributions of notable bird populations, which includes:

- Qualifying species of local statutory and non-statutory nature conservation designations, and Internationally IIWS;
- Species of Principal Importance (SPI);
- Species listed in Lincolnshire BAP (Lincolnshire Biodiversity Partnership;
- BoCC, Red-listed and Amber-listed; and
- Wildlife and Countryside Act 1981 (as amended), Schedule 1 species.

1.2 This report has been prepared with reference to best practice guidance published by the Chartered Institute for Ecology and Environmental Management (CIEEM, 2017 and 2018) and as detailed in British Standard 42020:2013 Biodiversity – Code of Practice for Biodiversity and Development (BSI, 2013).

1.3 The overall aim of the surveys was to provide robust ecological baseline information to inform the design of the Scheme. The Study Area reflects the extent of the PV Area at the time of survey. Surveys were undertaken to allow the results of this report to feed into the design and locations of infrastructure within the PV Area.

1.4 Further detailed mitigation advice will be prepared and issued upon completion of all bird surveys and is beyond the scope of this report.

SITE CONTEXT AND STATUS

1.5 The Study Area is centred on Ordnance Survey National Grid reference TF 30365 13425, approximately 1.7km north of Crowland and 9km south east of Spalding as shown in Appendix 1, Figure 1. As the survey was carried out to inform detailed designs, the Survey Area covers approximately 5,000ha, to include the anticipated maximum extent of the Scheme. This included the PV Area, but excludes the Grid Connection or Inter-Array Areas, as these were not defined at the time of survey.

1.6 The area is predominantly low-lying agricultural land with ditch and hedgerow field boundaries, interspersed with minor roads.

SCHEME CONTEXT

1.7 Surveys were conducted to provide information as part of a DCO application for a Nationally Significant Infrastructure Project (NSIP) near Spalding, Lincolnshire. The NSIP concerns the construction, operation (including maintenance) and decommissioning of a solar photovoltaic (PV) electricity generating facility with associated infrastructure including co-located battery storage and an approximately 13km Grid Connection, the 'Scheme'. The Scheme consists of three elements, the 'PV Area', the 'Grid Connection', and the 'Inter-Array Connection'. The PV Area is the land

proposed to contain the solar PV infrastructure, solar PV supporting infrastructure and On-Site Substation and BESS Compounds and is the subject of this appraisal. The Grid Connection and Inter-Array Connection will be the subject of separate appraisals to be undertaken once each element has been further refined.

RELEVANT LEGISLATION AND PLANNING POLICY

1.8 The following key pieces of nature conservation legislation are relevant to this appraisal. A more detailed description of legislation is provided in Appendix 4:

- The Conservation of Habitats and Species Regulations 2017 (as amended);
- Wildlife and Countryside Act 1981 (as amended);
- Natural Environment and Rural Communities Act 2006;

1.9 National Planning Policy Framework (NPPF) (Ministry of Housing, Communities and Local Government, 2024) requires local authorities to avoid and minimise impacts on biodiversity and should provide net gains in biodiversity when taking planning decisions.

1.10 The Overarching National Policy Statement (NPS) for Energy (EN-1), National Policy Statement for Renewable Energy Infrastructure (EN-3) and National Policy Statement for Electricity Networks Infrastructure (EN-5) set out the Government's energy policy, the need for new infrastructure and guidance for determining an application for a DCO. The NPSs include specific criteria and issues which should be covered by applicants' assessments of the effects of their scheme, and how the decision maker should consider these impacts. For example, NPS (EN-3), paragraph 2.4.2, which underlines the importance of good design for energy infrastructure in design of the project to mitigate impacts such as noise and effects on ecology.

1.11 Other planning policies at the local level which are of relevance to this development include South East Lincolnshire Local Plan (2019) and the Lincolnshire BAP.

2 Methodology

DESKTOP STUDY

2.1 A search was made on MAGIC (MAGIC, 2022) for statutory designated sites relating to birds within 15km of the Study Area. In line with professional judgment, a 15km buffer was chosen in relation to IIWS, including Special Areas of Conservation (SAC), SPA and Ramsar sites, given the scale and nature of the works and potential impact pathways for qualifying species of the IIWS. A search of up to 2km was made for other statutory designated sites including Sites of Special Scientific Interest (SSSI), National Nature Reserves (NNR) and Local Nature Reserves (LNR).

FIELD SURVEY

2.2 The Winter Bird Surveys (WBS) surveys were undertaken by an Ecologist with six years of ornithological survey experience and a Senior Ecologist with 15 years ornithological experience. All surveyors are proficient in bird identification, survey techniques and the assessment of wintering bird populations.

2.3 This assessment and report were compiled by a Principal Ecologist and full member of CIEEM, with over 40 years ornithological experience.

2.4 The Scheme is located within a broad area of relatively homogeneous habitat and landscape character. On this basis, as no defined Scheme Boundary was available at the time of surveys, a survey programme was determined to provide a representative sample of the wintering bird assemblages using a landscape sampling approach. The samples chosen were associated with the typical habitats present across the Survey Area and targeting any key habitats likely to be of particular importance to wintering birds

2.5 Surveys were carried out using six pre-defined transects (as shown on Figure 1, Appendix 1). These utilised roads and public rights of way and were designed to enable good views across the Study Area and wider landscape.

2.6 Six survey visits were carried out between October 2022 and March 2023, with at least two weeks between each visit in line with best practice (Bird Survey Guidelines, 2023). During which each of the six transect routes were walked slowly and methodically. All birds seen within or adjacent to the Study Area were recorded using the standard British Trust for Ornithology (BTO) species codes. Stopping points were also incorporated to record species that could flock in significantly large numbers such as winter thrushes, starlings, waterfowl and waders, and to avoid double counting.

2.7 The surveyors used 8x42 or 10x42 binoculars and a 20-60x zoom telescope to assist with bird identification and scaled field maps to record the registrations/numbers of each bird species observed. Details of the weather, as well as constraints and details of any disturbance were all recorded for each survey.

Survey Details

2.8 The times, dates and weather conditions of all survey visits are detailed in Table 2.1, below.

Table 2.1: Wintering bird survey (WBS) dates and times

Transect	Date	Start Time	Temp	Cloud Cover	Wind	Rain	Comment
T1	26/10/2022	13.45	12^{O}C	3/8	1/12	0/5	Bright
	25/11/2022	07.30	4^{O}C	0/8	3/12	0/5	Bright, cold
	15/12/2022	08.25	- 4^{O}C	8/8	2/12	0/5	Mist, visibility 250 - 500m, cold
	18/01/2023	08.05	- 4^{O}C	4/8	3/12	0/5	Dull, cold
	24/02/2023	14.30	7^{O}C	2/8	4/12	0/5	Sunny intervals
	24/02/2023	14.30	7^{O}C	2/8	4/12	0/5	Sunny intervals
T2	26/10/2022	07.30	12^{O}C	1/8	2/12	0/5	Bright
	25/11/2022	13.30	8^{O}C	0/8	5/12	0/5	Bright and breezy

Transect	Date	Start Time	Temp	Cloud Cover	Wind	Rain	Comment
	14/12/2022	08.30	- 5^{O}C	0/8	2/12	0/5	Bright. Bitterly cold
	17/01/2023	07.50	- 5^{O}C	1/8	3/12	0/5	Bright. Bitterly cold
	21/02/2023	07.10	7^{O}C	7/8	3/12	0/5	Overcast
	21/02/2023	07.10	7^{O}C	7/8	3/12	0/5	Overcast
T3	27/10/2022	07.50	19^{O}C	7/8	3/12	1/5	Overcast
	24/11/2022	07.30	5^{O}C	2/8	4/12	0/5	Bright
	15/12/2022	12.30	3^{O}C	4/8	4/12	0/5	Dull
	16/01/2023	08.05	3^{O}C	4/8	5/12	0/5	Bright and breezy
	20/02/2023	07.15	7^{O}C	3/8	4/12	0/5	Bright and breezy
	20/02/2023	07.15	7^{O}C	3/8	4/12	0/5	Bright and breezy
T4	25/10/2022	16:00	17^{O}C	4/8	3/12	0/5	Mild
	24/11/2022	08:00	5^{O}C	6/8	3/12	0/5	Cool
	04/01/2023	08:00	13^{O}C	7/8	6/12	1/5	Mild
	24/01/2023	07:30	2^{O}C	2/8	2/12	0/5	Cold
	28/02/2023	07:30	4^{O}C	5/8	3/12	2/5	Cold
	21/03/2023	06:15	12^{O}C	3/8	2/12	0/5	Mild
T5	26/10/2022	16:00	20^{O}C	5/8	4/12	0/5	Mild
	25/11/2022	08:00	5^{O}C	8/8	3/12	1/5	Cool
	05/01/2023	08:00	8^{O}C	8/8	3/12	1/12	Cool
	26/01/2023	07:30	6^{O}C	7/8	3/12	0/5	Rain
	01/03/2023	07:15	6^{O}C	8/8	2/12	3/5	Rain
	22/03/2023	06:15	14^{O}C	4/8	2/12	0/5	Mild
T6	27/10/2022	16:00	19^{O}C	4/8	4/12	0/5	Mild
	26/11/2022	08:00	6^{O}C	8/8	3/12	3/5	Cold

Transect	Date	Start Time	Temp	Cloud Cover	Wind	Rain	Comment
	06/01/2023	08:00	6^{O}C	7/8	4/12	0/5	Cool
	27/01/2023	07:30	6^{O}C	8/8	4/12	1/12	Cloudy
	02/03/2023	07:15	6^{O}C	8/8	3/12	2/5	Cold
	22/03/2023	06:00	13^{O}C	3/8	2/12	0/5	Mild

2.9 Upon completion of the surveys, information obtained from each visit was transferred to a separate map and digitised using ArcGIS software.

NATURE CONSERVATION EVALUATION RELATING TO BIRDS

Assessment criteria

2.10 In line with CIEEM (2018), the overall evaluation of the wintering bird assemblage recorded within the Site were assessed against criteria for international, national, county, local, site and negligible nature conservation importance (see Table 2.2).

2.11 Criteria for the Birds of Conservation Concern (BoCC) (Stanbury *et al*, 2021), which identifies the Red-list and Amber-list species is provided in Appendix 3.

Table 2.2: Nature Conservation Evaluation of habitat for birds

Nature conservation importance	Definition
International	Study Area meets SPA qualifying population criteria: • Site used regularly[1] by 1% of the national population of an Annex 1 species of the EC Birds Directive[2]; • Site used regularly by 1% of the biogeographical (international) population of a regularly occurring migratory species (other than those listed in Annex I of the EC Birds Directive) in any season; • Site used regularly by over 20,000 waterfowl or 20,000 sea birds in any season. The regular occurrence of a globally rare species (International Union for Conservation of Nature)
National	Study Area used regularly by 1% of the national population (taken from Baker *et al.*, 2006 and Musgrove *et al.*, 2011) of a species (not listed in Annex 1 of the Birds Directive) The site meets SSSI or NNR designation criteria for birds (Joint Nature Conservation Committee JNCC).
County	Study Area used regularly by 10% of the county population of a species or Site meets County Wildlife Site or Sites for Important Nature Conservation SINC criteria for birds in Lincolnshire.
Local	Study Area used regularly by a species whose status is scarce within the county[3]. Site supports a population of a species, or a species assemblage of birds, notable for their protected or conservation concern status (Schedule 1 of Wildlife and Countryside Act (WCA) 1981 (as amended) for breeding species, Annex 1 of EC Birds Directive, SPI as listed in Section 41 of the Natural Environment and Rural Communities (NERC) Act 2006, Local BAP, Red-list BoCC (Stanbury *et al.*, 2021).
Site	Study Area used regularly by an assemblage of birds, or large numbers of an individual species whose status is common within the county[4].
Negligible	Study Area supports no notable species or assemblages of birds.

[1] Regularly is taken to mean that the Study Area is used during a life stage of a bird population, such as breeding or migration, where (i) the mean of the maxima of that population over five years for the seasons in which the Study Area is used meets the qualifying criteria or (ii) the requisite number of birds is known to have occurred in two thirds of the seasons for which adequate data area available (the total number of seasons being not less than three).
[2] The Birds Directive (2009/147/EC) provides a framework for the conservation and management of, and human interactions with, wild birds in Europe
[3] Scarce as defined by the relevant county ornithological society/county bird recorder
[4] Common as defined by the relevant county ornithological society/county bird recorder

NOMENCLATURE

2.12 Common names only are used throughout the text of this report, with scientific names for all species included in Appendix 5. The naming convention follows the Natural History Museums species dictionary (2023).

LIMITATIONS AND SURVEY CONSTRAINTS

2.13 The desk study for this report has been restricted to publicly available data due to sensitivity regarding communicating details of the proposed scheme to biological recorders or other third parties at the early stages of the Scheme's development. A more detailed review of data sources will be carried out at a later date as part of wider environmental assessment of the Scheme.

2.14 Every effort has been made to provide robust and comprehensive data on the wintering bird assemblages within the Study Area. However, the following limitations apply:

- Given the scale of the Study Area, the uncertainty as to the proposed indicative site layout at the time of survey and restriction to using mostly public rights of way for access, a sampling approach has been adopted. Based on the relative homogeneity of the habits within the landscape and the open flat character that allows extensive lines of site, this is deemed to be appropriate and will provide a relatively robust representation of the wintering bird assemblages within the Study Area and identify any important features.

- Individual birds and different bird species vary in their behaviour and detectability, and it is unlikely that registrations were detected for all birds during each survey visit. Nevertheless, it is considered that the majority of the wintering bird assemblage was recorded over the course of the surveys and the data collected is therefore considered sufficiently robust for evaluating the wintering bird assemblage present within the Study Area.

3 Results

DESKTOP STUDY

Statutory Designated Sites

3.1 The following IIWS, for which the qualifying species including wintering birds, lie within 15km of the Study Area (refer to Table 3.1 for details and Appendix 1, Figure 2 for the locations of these sites):

- The Nene Washes Ramsar site and SPA.

3.2 There are no SSSI or other statutory sites for nature conservation within a 2km buffer of the Indicative Site Boundary.

Table 3.1: International Designated sites within 15km of the Survey Area

Site Name	Distance and Orientation from Site	Ornithological Qualifying features/Description
The Nene Washes Ramsar site	12km south	The Study Area qualifies under Ramsar criterion 6: Bewick's swan and pintail (wintering). Populations of black-tailed godwit have been identified subsequent to designation for possible future consideration as qualifying species.
The Nene Washes SPA	12km south	Article 4.1 of the EC Birds Directive by regularly supporting, in winter, an internationally important wintering population of Bewick's swan. Article 4.2 by supporting, in winter, nationally important wintering populations of wigeon, teal, gadwall and shoveler.

HABITATS WITHIN THE STUDY AREA

3.3 The Study Area predominantly comprised agricultural land, mainly used for crop production (cereal, root crop and brassicas); with field boundaries consisting of a network of ditches and hedgerows.

FIELD SURVEY

3.4 A total of 68 species were recorded during the surveys, including 42 notable species. Nine Schedule 1 breeding bird species were recorded, thirteen species were BoCC Red-list, 23 species were BoCC Amber-list and 11 SPI. Twelve Local BAP (Lincolnshire BAP) species were recorded at the site during the surveys. Peak counts of notable species for the Study Area are detailed below in Table 3.

3.5 A list of the species recorded during the surveys is provided in Appendix 5, which includes the numbers for each transect and peak counts.

Table 3.2: Notable species recorded during winter bird survey (WBS) visits of T1-T6

Species	IWSS Qualifying Species	Sch 1 Species	Birds of Conservation Concern	Species of Principal Importance for Biodiversity	Peak count
Barn owl		Yes			2
Black-headed gull			Amber		269
Common gull			Amber		20
Corn bunting			Red	Yes	78
Crane			Amber		4
Dunnock			Amber	Yes	4
Fieldfare		Yes	Red		162
Greenfinch			Red		12
Grey partridge			Red	Yes	2
Herring gull			Red	Yes	15

Species	IWSS Qualifying Species	Sch 1 Species	Birds of Conservation Concern	Species of Principal Importance for Biodiversity	Peak count
House sparrow			Red	Yes	19
Kestrel			Amber		6
Kingfisher		Yes			1
Lapwing			Red	Yes	500
Lesser black-backed gull			Amber		37
Linnet			Red	Yes	170
Mallard			Amber		32
Marsh harrier		Yes	Amber		1
Meadow pipit			Amber		28
Mistle thrush			Red		1
Moorhen			Amber		5
Pink-footed goose			Amber		26
Red kite		Yes			3
Redshank			Amber		8
Redwing		Yes	Amber		29
Reed bunting			Amber	Yes	45
Rook			Amber		266

Species	IWSS Qualifying Species	Sch 1 Species	Birds of Conservation Concern	Species of Principal Importance for Biodiversity	Peak count
Shelduck			Amber		2
Skylark			Red	Yes	55
Snipe			Amber		8
Song thrush			Amber		10
Sparrowhawk			Amber		2
Starling			Red	Yes	185
Stock dove			Amber		26
Teal	Yes		Amber		12
Whooper swan		Yes	Amber		82
Woodcock			Red		4
Woodpigeon			Amber		1254
Wren			Amber		6
Yellowhammer			Red	Yes	13

CONSERVATION STATUS OF NOTABLE SPECIES RECORDED WITHIN THE STUDY AREA

3.6 The following section provides more details on the conservation status of notable bird species recorded within the Study Area during winter 2022/2023. Winter visitors whose conservation status relates to the UK breeding population have not been considered further.

3.7 Background information on the status of species is quoted from the BTO Website (BTO, 2023) except where alternative references are cited. Details of BoCC status are taken from Stanbury *et al.* (2021). The Lincolnshire status for each species is taken from the Lincolnshire Bird Report for 2020 (Lincolnshire Bird Club, 2022).

IIWS SPECIES

Teal

3.8 Although much more abundant as a winter visitor, the teal has a small breeding population of 2,700 to 4,750 breeding pairs (APEP4), with breeding numbers having increased since the 1988–91 Breeding Atlas was compiled. However, the status is complicated by the presence of wintering and migrant birds until the end of April, and there has been a 14% range decrease since the 1968–72 Breeding Atlas; hence the longer-term trend is unknown. The UK supports and internationally important wintering population of teal, hence its inclusion on the Amber-list.

3.9 Teal is a very common winter visitor in Lincolnshire with four figure counts recorded at several sites.

3.10 The maximum count of 12 teal was recorded during the WBS on Transect 2 in January 2023. This figure represents 0.6% of the wintering population cited for the designation of the Nene Washes Ramsar site (2015) and 1.2% of the populations cited for the classification of the SPA (980).

3.11 The Study Area is therefore not considered to be of importance for this species.

SCHEDULE 1 SPECIES

3.12 Schedule 1 species that were recorded during the breeding season, which could conceivably breed within the Survey Area are detailed below:

Barn Owl

3.13 An early population estimate for 1932 of 12,000 breeding pairs in England and Wales concluded that there had been substantial decline over the previous 30-40 years. Decline continued through the 1950s and 1960s. The 1968-72 Atlas suggested a population of 4,500-9,000 pairs and the 1988-91 Atlas estimated a 37% loss of occupied 10-km squares in Britain since the 1968-72 Atlas. The potential for breeding numbers to double or halve over periods as short as 3-4 years, due to the cycles of vole abundance, and to crash following severe hampers the interpretation of such studies.

3.14 The barn owl is a common and widespread resident in Lincolnshire.

3.15 Two dead barn owls were recorded on Transect 3 in March 2023.

3.16 The Study Area is therefore considered to be of local importance for this species.

Kingfisher

3.17 The Kingfisher declined along linear waterways (its principal habitat) until the mid-1980s, since then it seems to have made a complete recovery, only to enter another decline, though numbers are still much higher now than in the mid-1980s. The initial decline was associated with a contraction of range in England.

3.18 The kingfisher is described as a fairly common resident in Lincolnshire.

3.19 A single kingfisher was recorded along Transect 1 in October 2022.

3.20 The Study Area is therefore considered to be of local importance for this species.

Marsh harrier

3.21 Marsh harriers became extinct in the UK in 1899 before recolonising from 1927 onwards. The population in the UK peaked at 15 nests in 1958 but then declined again and reached a low point of just one pair in 1971 (Underhill-Day 1998). It has

since increased strongly with a mean of just over 400 breeding pairs reported to the Rare Breeding Birds Panel over the five years 2015–2019 (Stanbury *et al*. 2021). There has been a corresponding expansion in distribution with breeding birds now widely spread across Britain although its strongholds remain in the east of England (Balmer *et al*. 2013). It is now sufficiently widespread to enable short-term Breeding Bird Surveys (BBS) trends to be calculated; these show a 36% increase over the most recent 10-year period for which results are available (2008–18) (Harris *et al*., 2020). The species appears on the Amber-list because of its localised breeding.

3.22 Marsh harrier is a summer visitor to Lincolnshire with an increasing wintering population.

3.23 A single marsh harrier was recorded on Transect 1 in December 2022 and January 2023.

3.24 The Study Area is therefore considered to be of local importance for this species.

RED-LISTED BIRD SPECIES OF CONSERVATION CONCERN

Corn bunting

3.25 Following an earlier, historical decrease, corn buntings declined very steeply between the mid-1970s and mid-1980s, with local extinctions across large sections of their former range. Subsequently the decline has continued, but at a reduced rate. There has been widespread moderate decline across Europe since 1980 (BTO, 2018). Similar to skylark, changes in farming practice are believed to have been responsible for declines, through impacts on reduced seed and/or invertebrate abundance, most notably the lack of invertebrate food for chicks (Brickle *et al.,* 2000). Corn bunting is also a SPI.

3.26 The species is fairly common in Lincolnshire with wintering flocks of over 50 birds recorded at four sites in 2020.

3.27 The maximum count of 78 corn buntings was recorded on Transect 3 in December 2022 during the WBS.

3.28 The Study Area is therefore considered to be of local importance for this species.

Greenfinch

3.29 Greenfinch is widely distributed in winter and the breeding season, perhaps showing especially strong associations with villages and towns across Britain and Ireland; its only significant range gaps are in the higher parts of northern Scotland. Highest densities are found on lower ground, mainly in south and south-east England, eastern Scotland and in pockets throughout Ireland. The current decline has resulted in the addition of greenfinch to the Red-list.

3.30 Greenfinch is a common, but declining resident in Lincolnshire.

3.31 The maximum count of 12 greenfinches recorded during the WBS was on Transect 2 in January 2023.

3.32 The Study Area is therefore considered to be of local importance for this species.

Grey partridge

3.33 This native gamebird has declined enormously, and, despite years of research and the application of a government BAP, the continuing decline shown by Common Bird Census (CBC)/BBS suggests that all efforts to boost the population in the wider countryside have so far been unsuccessful. Grey partridges are widespread across lowland England, except for the south-east and south-west. The species is on the Red-list due to the decline in numbers.

3.34 Grey partridge is a common, but declining resident in Lincolnshire.

3.35 Two grey partridges were recorded during the WBS on Transect 2 in December 2023.

3.36 The Study Area is, therefore, considered to be of local importance for this species.

House Sparrow

3.37 The house sparrow is among the most widespread species in Britain and Ireland, being found in *c*.90% of 10-km squares; it is absent only from exposed upland areas of northern Scotland. Abundance is generally higher in lowland areas, although densities are low in south-east England and East Anglia. However, CBC / BBS data indicate a rapid decline in abundance over the last 25 years, as does the BTO's Garden Bird Feeding Survey (Siriwardena *et al*., 2002 and Robinson *et al*., 2005b). The populations in rural areas declined by 47% by 2000, and those in urban and suburban areas by about 60% (Robinson *et al*., 2005b). A change in the listing criteria resulted in the admission of the species, green-listed until 2002, directly to the Red-list.

3.38 House sparrow is an abundant resident in Lincolnshire.

3.39 The maximum count of 19 house sparrows recorded during the WBS was on Transect 3 in December 2022.

3.40 The Study Area is therefore considered to be of local importance for this species.

Lapwing

3.41 In Britain, wintering concentrations of lapwing are highest in the Somerset Levels, Fens, north-west England, the Uists, Caithness and Orkney. The former core area in central England is less dominant and Fenland and the east coast now more prominent than in the 1981–84 Winter Atlas. Densities of breeding lapwings are highest in northwest England, Orkney, Shetland and the Outer Hebrides; those in Ireland are low throughout. National surveys in England and Wales showed a 49% population decline between 1987 and 1998 (Wilson *et al*., 2001). The 2009 review moved this species from amber to the UK Red-list, for which it continues to qualify on the strength of its UK decline, which has been shown to be 59% (1967–2020) (Woodward *et al*., 2020).

3.42 Lapwing is a very common winter visitor in Lincolnshire.

3.43 The maximum count of lapwing during the WBS was 500 on Transect 1 in October 2022.

3.44 The Study Area is therefore considered to be of local importance for this species.

Linnet

3.45 Linnet abundance fell rapidly in the UK in the late 1960s, and again between the mid-1970s and mid-1980s, but decrease has been followed by a long period of relative stability. Numbers have fallen further since the start of BBS in 1994. The BBS map of change in relative density between 1994-96 and 2007-09 indicates that, in both Britain and Northern Ireland, there was decrease over that period in eastern regions and increase in the west. The UK breeding population has shown a 20% decrease (1995–2020).

3.46 Linnet is a very common resident in Lincolnshire with three figure counts recorded at several sites.

3.47 The maximum count of 170 linnet was recorded during the WBS on Transect 2 in January 2023; 101 were present on Transect 1 in February 2023 and 71 on Transect 3 in November 2022.

3.48 Appendix 7 shows the location of the linnet records for Transects 1,2 and 3.

3.49 The Study Area is therefore considered to be of local importance for this species.

Mistle Thrush

3.50 Mistle thrush populations have declined significantly since the mid-1970s. The species was moved from the green to the Amber-list of BoCC in 2002 because of its UK population decline, and added to the Red-list because its decrease had worsened (Eaton *et al*., 2015), showing a 59% decrease.

3.51 Mistle thrush is a common resident in Lincolnshire.

3.52 Single mistle thrushes were recorded on two occasions on Transect 3 in November 2022 and March 2023.

3.53 The Study Area is therefore considered to be of local importance for this species.

Skylark

3.54 The skylark declined rapidly from the mid-1970s until the mid-1980s, when the rate of decline slowed. BBS data show further decline, with fluctuations in Scotland and Wales. There has been a 15% decrease (1995–2020) in the UK population.

3.55 Skylark is a very common resident in Lincolnshire with three figure counts recorded at several sites.

3.56 The maximum count of 55 skylark was recorded during the WBS on Transect 1 in December 2022.

3.57 Appendix 7 shows the location of the skylark records for Transects 1,2 and 3.

3.58 The Study Area is therefore considered to be of local importance for this species.

Starling

3.59 The abundance of breeding starling in the UK has fallen rapidly, particularly since the early 1980s and especially in woodland (Robinson *et al*., 2002 and 2005a), and continues to decline. The BBS map of change in relative density between 1994-96 and 2007-09 indicates that decrease over that period was widespread across England and eastern Scotland but that some increase occurred in Northern Ireland, western Scotland and Cumbria. More recent BBS data suggest that populations are also now decreasing in Scotland and Wales and are broadly stable in Northern Ireland. The species' UK conservation listing has been upgraded from amber to red as the decline has become more severe with the UK breeding population declining by 53%.

3.60 Starling is a very common resident in Lincolnshire with winter roosts of over 10,000 birds recorded at several sites.

3.61 The maximum count of 185 starling was recorded during the WBS on Transect 3 in October 2022; 143 were present on Transect 1 in February 2023 and 109 on Transect 1 in January 2023.

3.62 The Study Area is therefore considered to be of local importance for this species.

Woodcock

3.63 The woodcock declined rapidly and significantly on CBC plots for the three decades up to 2000. Because CBC did not include many coniferous forests and its plots were concentrated in lowland Britain, however, it is not certain how clearly this trend represented the whole UK population at that time. UK winter population has shown a 16% decrease (1995/96 to 2020/21). Due to the decline in its breeding range woodcock is on the Red-list.

3.64 Woodcock is a common resident and winter visitor in Lincolnshire, but normally recorded in low single figures when disturbed.

3.65 The maximum count of four woodcocks was recorded during the WBS on Transect 2 in February 2023.

3.66 The Study Area is therefore considered to be of local importance for this species.

Yellowhammer

3.67 Yellowhammer abundance began to decline on farmland in the mid-1980s. The BBS map of change in relative density between 1994-96 and 2007-09 indicates that in Britain there was a sharp divide between decrease over that period in the east and south and limited increase in the north-west; the population in Northern Ireland has also declined. Recent BBS data confirms that the earlier downward trends have continued, with a moderate decrease since 1995 recorded in England and a steep

decrease in Wales, contrasting with shallow increase in Scotland. The breeding population has declined by 62% (1967–2020) The species has been on the Red-list since 2002.

3.68 Yellowhammer is a very common resident in Lincolnshire with three figure counts recorded at some sites.

3.69 The maximum count of 13 yellowhammer was recorded during the WBS on Transect 3 in February 2023.

3.70 The Study Area is therefore considered to be of local importance for this species.

AMBER-LISTED BIRD SPECIES OF CONSERVATION CONCERN

3.71 Note that Amber-listed species do not contribute to the Study Area's importance for wintering birds.

Black-headed Gull

3.72 The UK population of Black-headed Gulls breeding at coastal colonies remained relatively stable between the 1969–70 Census and Seabird 2000 (1998–2002). However, the trend for inland breeding birds, which make up nearly half the population, is unknown as inland colonies were not surveyed fully prior to Seabird 2000. The species has shown at 31% decrease in its wintering population between 1995/96 and 2020/21.

3.73 In Lincolnshire, the species is a common resident, winter visitor and passage migrant.

3.74 The peak count during the wintering bird survey was 259 along Transect 1 in February 2023.

Common Gull

3.75 The coastal-nesting population increased by 70% between the 1969–70 Census and Seabird 2000 (1998–2002). However, more than half of the population counted by Seabird 2000 were breeding inland. The inland breeding colonies have not been counted consistently and hence the overall trend for this species is highly uncertain. The species has shown at 43% decrease in its wintering population between 1995/96 and 2020/21.

3.76 In Lincolnshire, the species is a common, winter visitor and passage migrant.

3.77 The peak count during the wintering bird survey was 20 along Transect 3 in January 2023

Crane

3.78 Cranes formerly bred in the UK but became extinct in the sixteenth century. A small crane population has persisted in Norfolk since the 1980s with both numbers and the UK breeding range increasing more strongly in the 21st century to a five-year mean of 40 breeding pairs over the period 2015–2019. Cranes now breed widely across the UK including, from 2012, in Scotland (Biggins and Maggs, 2021) and numbers have also been boosted by releases between 2010 and 2014 (Eaton *et al*. 2021). They are on the Amber-list because they are a rare breeding and wintering species.

3.79 Crane is a scarce (but increasing) migrant in Lincolnshire that has also bred in recent years.

3.80 The maximum count of four cranes was recorded during the WBS on Transect 1 in November 2022.

Dunnock

3.81 Although numbers of this species are stable in the county, the UK population has suffered from recent declines (Balmer *et al*., 2013). As a hedgerow specialist, habitat loss is again cited as the cause for the declines. The decline of the species between the mid-1970s and mid-1980s is likely to be due to several factors, but strong experimental evidence in farmland areas suggests that this may be linked to reduced winter food availability. This reflects similar results found for other species that suffer a 'hungry gap' in February and March (Woodward *et al*., 2018). Dunnock is also an SPI.

3.82 Dunnock is a very common resident in Lincolnshire.

3.83 A single dunnock was recorded on Transect 3 in January and February 2023.

Kestrel

3.84 Kestrel recovered from the lethal and sublethal effects of organochlorine pesticides by the mid-1970s, the recovery probably driven by improving nesting success, but subsequently entered a steep decline in the late 1970s and early 1980s. Since the mid-1980s, the English population has fluctuated without a long-term trend being apparent but there are significant declines over the BBS period in England and especially in Scotland. The UK breeding population has shown a 40% decrease (1995–2020) and the species is on the Amber-list due to the moderate breeding population decline in the last 25 years.

3.85 Kestrel is a very common resident in Lincolnshire.

3.86 The maximum count of six kestrels was recorded during the WBS on Transect 2 in January 2023.

Lesser Black-backed gull

3.87 The population of Lesser black-backed Gulls increased considerably between the 1969–70 Census and Seabird 2000 (1998–2002) with the number of coastal nesting pairs almost doubling (JNCC, 2022). The full extent of this increase is unclear as inland nesting birds were not counted consistently prior to Seabird 2000, but Atlas data show that significant range increases in inland areas have occurred, suggesting that population increases have also occurred across inland colonies which are usually on rooftops. However, annual monitoring shows that substantial declines have occurred at coastal colonies. The species has shown a 22% decrease in its wintering population between 1995/96 and 2020/21.

3.88 The species is resident in Lincolnshire, where it is increasing as a winter visitor.

3.89 The maximum count of 37 was recorded on Transect 3 in March 2023

Mallard

3.90 The mallard increased steadily as a breeding bird in the UK from the 1960s to around 2000, especially in England, with the trend levelling off since then and a shallow decline has occurred over the last ten years. Winter populations have however, declined since at least the late 1980s (WeBS: Frost *et al*., 2020) with a 37% decrease from 1995/96 to 2020/21. The species has recently been moved from the green to the Amber-list on the strength of this decline in the UK wintering population.

3.91 Mallard is a very common resident in Lincolnshire with three figure counts recorded at several sites.

The maximum count of 32 mallards was recorded during the WBS on Transect 3 in February 2023 and 29 were present on Transect 1 in March 2023.

Meadow pipit

3.92 Meadow pipit has shown a downward since the mid-1970s. As a result of the 14% declines from 1995–2020), the species has accordingly been moved from the green to the Amber-list.

3.93 Meadow pipit is a common resident and winter visitor in Lincolnshire.

3.94 The maximum counts for meadow pipits during the WBS were 28 on Transect 3 in December 2022 and 24 on Transect 2 in November 2022.

Moorhen

3.95 Trends for this species show wide fluctuations that are related to its high potential for reproduction and to its susceptibility to cold winter weather. Wintering numbers in Britain, which include many continental breeders, fell between 2008 and 2013, showed 13% decrease (WeBS: Frost *et al*. 2020).

3.96 Moorhen is a very common resident in Lincolnshire.

3.97 The maximum count of five moorhens was recorded during the WBS on Transect 3 in January 2023.

Pink footed goose

3.98 Each autumn the entire population of pink-footed geese breeding in Iceland and eastern Greenland migrates southeast to winter almost exclusively in Britain, where flocks favour intensively farmed lowlands, and generally avoid upland areas. This species is uncommon in Shetland, north-west Scotland, Ireland, Wales, southwest and southern England. In Scotland it is found along the eastern coastal plain, through the central lowlands, mainly in the east, and around the Solway Firth. In England it is found mainly in a broad band from Lancashire across to Lincolnshire and Norfolk, though the winter relative abundance map suggests that the highest

densities are found close to the coast. The species is on the Amber-list due its localised non-breeding population and international importance.

3.99 Pink-footed goose is a very common winter visitor to the Humber and Wash in Lincolnshire.

3.100 Pink-footed geese were only recorded once during the WBS, with 26 on Transect 1 in January 2023.

Redshank

3.101 Range contraction had occurred from considerable areas of the UK by 1988-91, probably as a result of the drainage of farmland (Gibbons *et al*., 1993). Wintering Bird Survey (WBS) / Waterways Breeding Bird Survey (WBBS) results show a decline along waterways that apparently accelerated during the 1990s. Wintering populations (augmented by many Icelandic and some other northern European breeders) have shown some increase since the 1970s but have been in decline since about 2001, although the most recent counts suggest this decline may now have slowed and wintering numbers since 2011/12 have remained relatively stable (WeBS: Frost *et al*., 2020). In 2009, UK population decline (49% breeding population decline and 20% wintering population decline) was added to the criteria by which redshank qualifies for the Amber-list; however, the scale of decline reported here already meets the Red-list criterion.

3.102 Redshank is a very common winter visitor in Lincolnshire with three figure counts recorded at several sites.

3.103 The maximum count of eight redshanks was recorded during the WBS on Transect 3 in November 2022.

Redwing

3.104 Most redwing seen in the UK are present for the winter only and return to Scandinavia and Iceland to breed. However, small numbers of redwing do breed in

the UK, with the vast majority of breeding records occurring in Scotland, as a result the species is on the Amber-list.

3.105 Redwing is a common winter visitor in Lincolnshire with three figure counts recorded at several sites.

3.106 The maximum count of 29 redwings was recorded during the WBS on Transect 2 in February 2023.

Reed bunting

3.107 Reed bunting abundance has fluctuated without a clear trend since the 1980s. The long-term WBS/WBBS trend shows a large decline and raises an alert, contrasting with the long-term CBC/BBS trend. However, the CBC/BBS trend shows a substantial increase in the first eight years until the mid-1970s followed by a substantial decline in the late 1970s and early 1980s, and therefore the trends would be consistent if they had both started in 1975. The initial decline placed reed bunting on the Red-list but in 2009, with evidence from BBS of some recovery in numbers, the species was moved from the Red-list to the Amber-list.

3.108 Reed bunting is a very common resident in Lincolnshire, with many sites recording double figure flocks.

3.109 The maximum count of 45 reed buntings was recorded during the WBS on Transect 3 in January and February 2023.

Rook

3.110 BBS indices, which are drawn from sightings during transect walks and not from nest counts, suggest that a notable decrease has occurred subsequently, affecting all countries within the UK, particularly Wales and Scotland. The BBS map of change in relative density between 1994-96 and 2007-09 indicates that there had been increases during that period in Northern Ireland and in lowland regions of England and Wales but decreases in many upland areas and in eastern coastal areas of

Scotland. There has been little change in breeding productivity since the 1960s but a decrease in brood size is now becoming evident. The rook is on the Amber-list because the species is threatened in Europe.

3.111 Rook is a very common resident in Lincolnshire with three figure counts recorded at several sites.

3.112 The maximum count of 266 rooks was recorded during the WBS on Transect 3 in December 2022; over 100 were present on all visits to Transect 3.

Shelduck

3.113 UK winter shelduck population rose during the 1960s and 1970s, alongside the rise in breeding numbers, but then decreased from the mid-1990s, although a slight upturn has occurred in the last five years (WeBS: Frost *et al*., 2020). The species has shown a 23% decrease in the UK wintering population contributing to its inclusion on the Amber-list.

3.114 Shelduck is a common resident and winter visitor in Lincolnshire.

3.115 Shelduck was only recorded on one occasion with two on Transect 1 in March 2023.

Snipe

3.116 Snipe was monitored by the CBC mainly in lowland England, where numbers have fallen rapidly since the 1970s as farmland has been drained (Gibbons *et al*. 1993, Siriwardena *et al*., 2000a). The CBC index fell from the early 1970s until 1984, when the number of occupied plots became too small for further monitoring (Marchant *et al*. 1990), similarly there has been a 37% decrease in the UK wintering population hence its inclusion on the Amber-list.

3.117 Snipe is a fairly common winter visitor in Lincolnshire with double figure counts recorded at several sites.

3.118 The maximum count of eight snipe was recorded during the WBS on Transect 3 in February 2023.

Song thrush

3.119 CBC/BBS showed a steep decline in song thrush abundance that began in the mid-1970s. Short-term increases beginning around 2012 mean that the long-term UK decline is now classed as moderate rather than steep, but the population remains substantially lower than in the late 1960s. The UK breeding population has shown a 49% decrease between 1967 and 2020.

3.120 Song thrush is a common resident in Lincolnshire.

3.121 The maximum count of two song thrushes was recorded during the WBS on Transects 2 and 3 in February.

Sparrowhawk

3.122 Between the 1970s and the mid 1990s, the CBC charted a steep increase in this species. Many former haunts especially in the Midlands and east of England were reoccupied between the first two atlas periods (Gibbons *et al*., 1993). The population stabilised from the mid-1990s, though BBS figures suggest a moderate decline has occurred in England over the last ten years. The UK breeding population has shown a 25% decrease (1995–2020), meeting the criteria for Amber Listing.

3.123 Sparrowhawk is a common resident in Lincolnshire.

3.124 The maximum count of two sparrowhawks was recorded during the WBS on Transect 2 in December 2022 and January 2023.

Stock dove

3.125 Following release from the lethal and sublethal effects of the organochlorine seed-dressings used in the 1950s and early 1960s, stock dove populations have increased very substantially (O'Connor and Mead 1984). Numbers appeared to level off in the

early 1980s, but the trend has been generally upward since the 1990s except for a sharp drop in numbers early in the current century. The species is Amber Listed due to its international importance in the UK as a breeding species.

3.126 Stock dove is a common resident in Lincolnshire with three double counts recorded at several sites.

3.127 The maximum count of 26 stock doves was recorded during the WBS on Transect 1 in January 2023.

Whooper swan

3.128 The whooper swan is predominantly a winter visitor to the UK with wintering numbers increasing in line with increases in the Icelandic breeding population (Brides *et al*., 2021). The general pattern of winter distribution of the whooper swan remains consistent with the 1981–84 Winter Atlas, with the largest numbers of occupied squares in more northerly areas of both Britain and Ireland. The species is Amber Listed because it is a localised winter visitor.

3.129 Whooper swan is a fairly common winter visitor in Lincolnshire with three figure counts recorded at several sites.

3.130 The maximum count of 82 whooper swans was recorded during the WBS on Transect 1 in October 2022.

Woodpigeon

3.131 The CBC/BBS trend for this species is of a steady, steep increase since at least the mid-1970s. This has only recently started to level off, with BBS showing a very shallow but statistically significant decline in England over the most recent five year period. Since 1995, BBS has recorded significantly upward trends in the UK, and in England and Northern Ireland separately, but stability in Scotland and Wales. The BBS map of change in relative density between 1994-96 and 2007-09 indicates that increase has been very widespread, with decreases only in parts of northeastern

Scotland. Breeding success was increasing strongly during the 1970s and 1980s but is currently stable or in shallow decline. The UK supports an internationally important breeding population of woodpigeon, hence its inclusion on the Amber-list.

3.132 Woodpigeon is an abundant resident and winter visitor in Lincolnshire with three figure counts recorded at several sites.

3.133 The maximum count of 1,254 woodpigeons was recorded during the WBS on Transect 3 in February 2023.

Wren

3.134 The wren's current UK population estimate is the highest for any species and, on the latest figures, one in eight of our breeding birds is a Wren (APEP4). Numbers can be depleted in hard winters, but the species shows a rapid recovery. The UK supports an internationally important breeding population of wren, hence its inclusion on the Amber-list.

3.135 Wren is an abundant resident in Lincolnshire.

3.136 The maximum count of six wrens was recorded during the WBS on Transect 3 in October 2022.

4 Discussion And Conclusions

OVERVIEW

4.1 The wintering bird assemblage recorded during surveys comprised mostly common and widespread species, typical of the habitats present and in densities consistent with published information sources.

4.2 The presence of a number of notable species suggest that the Study Area is considered to be of **local** importance using the criteria stated in Table 2.3. The species recorded are generally typical of the habitats on site that provides roosting and feeding opportunities for a variety of wintering passerine species.

4.3 Wintering species listed as qualifying features for the Nene Washes SPA/ Ramsar, which lies 15km away, may, on occasion, occur within the Study Area. Of these, teal was recorded twice with a peak count of 12; however, given the low numbers recorded, distance from the Nene Washes, the few occasions on which they were recorded and limited extent of suitable habitat, it is unlikely to provide a significant resource for teal or other species associated with the SPA. The Study Area is, therefore, not considered to be functionally linked to the SPA / Ramsar site for these species and no likely significant effects would be anticipated as a result of impacts on these birds within the Study Area for the purposes of Habitat Regulations Assessment (HRA).

4.4 Given the low number of features on the site that are relevant to the IIWS, it is unlikely that any significant impacts would arise from the development within the Study Area.

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Appendix 1: Site Maps

Figure 1: Scheme, Study Area and Breeding Bird Transects

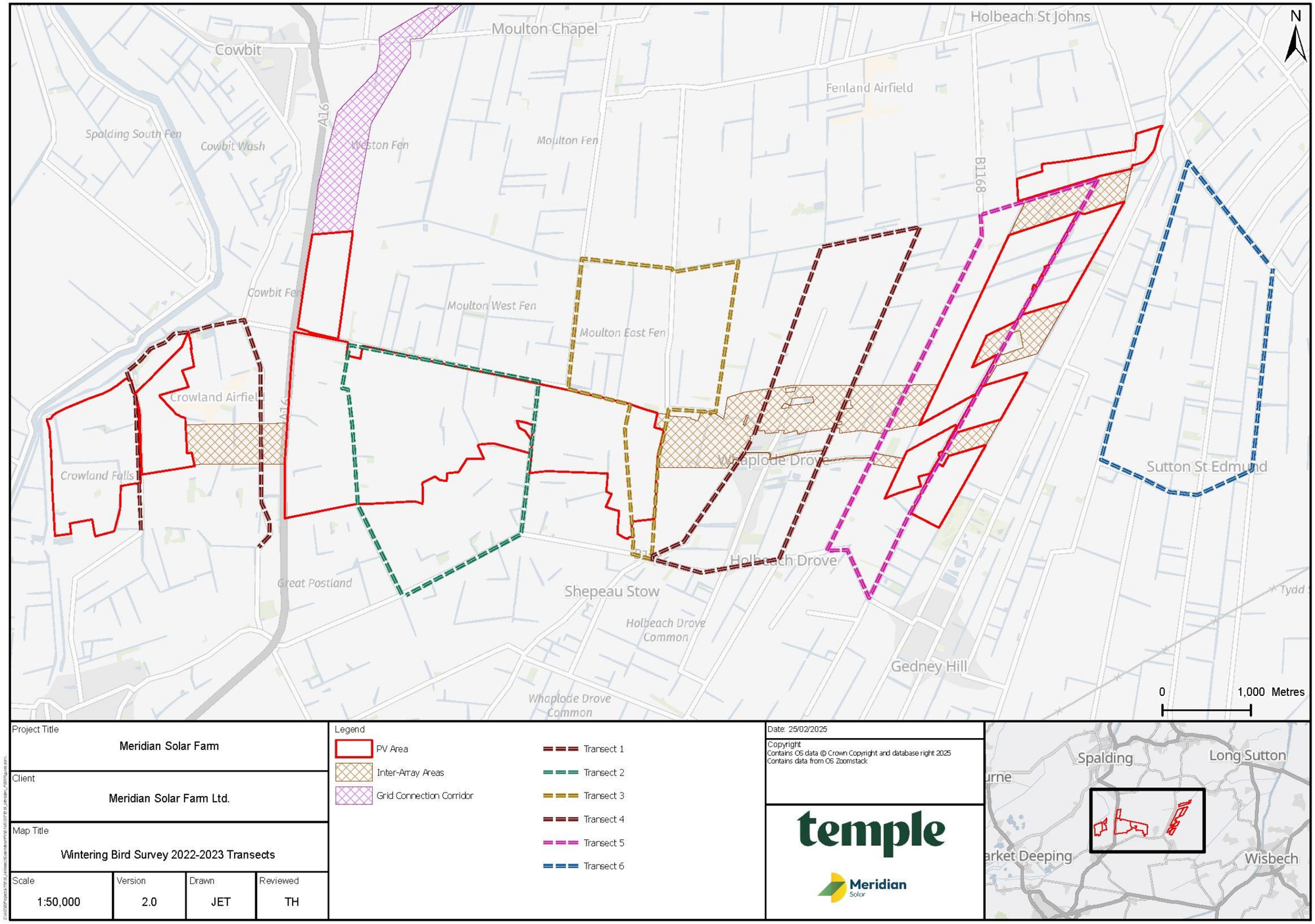
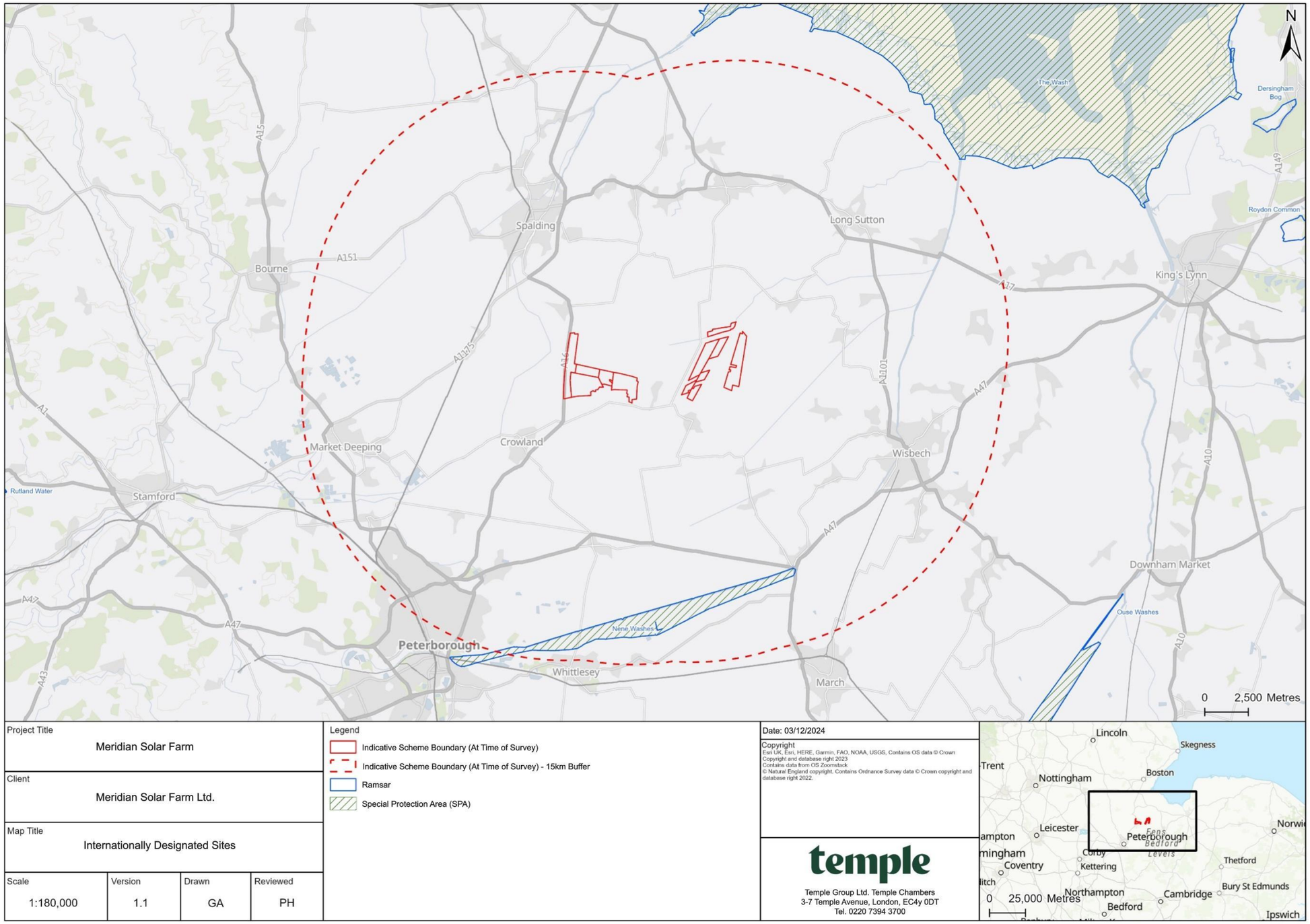


Figure 2: Internationally Designated Sites with 15km of the Study Area



Appendix 2: Designated Sites Citations

EC Directive 79/409 on the conservation of wild birds: Special Protection Area

Nene Washes (Cambridgeshire)

The Nene Washes is an area of seasonally flooding grassland and grazing marsh in the lower reaches of the River Nene, Cambridgeshire. The boundaries of the site follows those of the Nene Washes (Whittlesey) SSSI.

The site qualifies under Article 4.1 of the EC Birds Directive by regularly supporting, in winter, an internationally important wintering population of Bewick's swan *Cygnus columbarius bewickii* (1,300 individuals: over 7% of the north-west European population wintering population: average of peak counts for the five year period 1987/88 to 1991/92).

Nene Washes qualifies also under Article 4.2 by supporting, in summer, in recent years, nationally important breeding populations of regularly occurring migratory species: 25 pairs of gadwall *Anas strepera* (5% of British): five pairs of garganey *Anas querquedula (10%* of British), 36 pairs of shoveler *A. clypeata* (3% of British), and 16 pairs of black-tailed godwits *Limosa limosa* (30% of British), as well as several other rare birds.

The site further qualifies under Article 4.2 by supporting, in winter, nationally important wintering populations of five migratory species (average peak counts for the most recent five year period for which data is available (1984/5 - 1985/86 and 1988/89 - 1990/91): 3,640 wigeon *Anas penelope* (over 1 % of the British wintering population): 980 teal *A. crecca* (1% of British), 95 gadwall *Anas strepera* (over 1% of British): 440 Pintail *Anas acuta* (over 1% of British) and 110 shoveler *Anas clypeata* (over 1% of British).

The Nene Washes is also of importance for a diverse assemblage of breeding birds of wet grasslands, including: redshank *Tringa totanus*, snipe *Gallinago gallinago*, lapwing *Vanellus vanellus*, mute swan *Cygnus olor*, sedge warbler *Acrocephalus shoenobaenus* and yellow wagtail *Motacilla flava.* The site has an important role in maintaining the range of several of these species which have been affected by changes in habitat elsewhere in Britain.

Also notable is an assemblage of wintering waterfowl including, in addition to species listed above, mute swan, whooper swan *C. cygnus*, mallard *Anas platyryhnchus,* pochard *Aythya ferina*, tufted duck *Aythya fuligula*, shelduck *Tadorna tadorna* and coot *Fulica atra.* A wide range of raptors occur through the year on the Nene Washes, including merlin *Falco columbarius*, hobby *F. subbuteo.* peregrine *F. peregrinus*, marsh harrier *Circus aeruginosus*, hen harrier *C. cyaneus*, sparrowhawk *Accipiter nisus*, short-eared owl *Asio flammeus*, long-eared owl *A. otus*, and barn owl *Tyto alba.*

During severe winter weather elsewhere, the Nene Washes can assume even greater national and international importance as wildfowl and waders from many other areas arrive, attracted by the relatively mild climate, compared with continental European areas, and the abundant food resources available. It can also assume greater importance at times on deep flooding on the nearby Ouse Washes when it holds displaced birds.

The continued international importance of this site is dependant on the maintenance of a winter flooding regime and a high, but controlled summer water table.

SPA Citation
DAS June 1992

Information Sheet on Ramsar Wetlands (RIS)

Categories approved by Recommendation 4.7 (1990), as amended by Resolution VIII.13 of the 8th Conference of the Contracting Parties (2002) and Resolutions IX.1 Annex B, IX.6, IX.21 and IX. 22 of the 9th Conference of the Contracting Parties (2005).

Notes for compilers:

1. The RIS should be completed in accordance with the attached *Explanatory Notes and Guidelines for completing the Information Sheet on Ramsar Wetlands*. Compilers are strongly advised to read this guidance before filling in the RIS.

2. Further information and guidance in support of Ramsar site designations are provided in the *Strategic Framework for the future development of the List of Wetlands of International Importance* (Ramsar Wise Use Handbook 7, 2nd edition, as amended by COP9 Resolution IX.1 Annex B). A 3rd edition of the Handbook, incorporating these amendments, is in preparation and will be available in 2006.

3. Once completed, the RIS (and accompanying map(s)) should be submitted to the Ramsar Secretariat. Compilers should provide an electronic (MS Word) copy of the RIS and, where possible, digital copies of all maps.

1. Name and address of the compiler of this form:

FOR OFFICE USE ONLY.

DD MM YY

Designation date | Site Reference Number

Joint Nature Conservation Committee
Monkstone House
City Road
Peterborough
Cambridgeshire PE1 1JY
UK
Telephone/Fax: +44 (0)1733 – 562 626 / +44 (0)1733 – 555 948
Email: RIS@JNCC.gov.uk

2. Date this sheet was completed/updated:
Designated: 05 March 1993

3. Country:
UK (England)

4. Name of the Ramsar site:
Nene Washes

5. Designation of new Ramsar site or update of existing site:

This RIS is for: Updated information on an existing Ramsar site

6. For RIS updates only, changes to the site since its designation or earlier update:

a) Site boundary and area:

** Important note: If the boundary and/or area of the designated site is being restricted/reduced, the Contracting Party should have followed the procedures established by the Conference of the Parties in the Annex to COP9 Resolution IX.6 and provided a report in line with paragraph 28 of that Annex, prior to the submission of an updated RIS.

b) Describe briefly any major changes to the ecological character of the Ramsar site, including in the application of the Criteria, since the previous RIS for the site:

7. Map of site included:

Refer to Annex III of the *Explanatory Notes and Guidelines*, for detailed guidance on provision of suitable maps, including digital maps.

a) A map of the site, with clearly delineated boundaries, is included as:

i) **hard copy** (required for inclusion of site in the Ramsar List): *yes* ✓ -or- *no* □;
ii) **an electronic format** (e.g. a JPEG or ArcView image) Yes
iii) **a GIS file providing geo-referenced site boundary vectors and attribute tables** *yes* ✓ -or- *no* □;

b) Describe briefly the type of boundary delineation applied:

e.g. the boundary is the same as an existing protected area (nature reserve, national park etc.), or follows a catchment boundary, or follows a geopolitical boundary such as a local government jurisdiction, follows physical boundaries such as roads, follows the shoreline of a waterbody, etc.

The site boundary is the same as, or falls within, an existing protected area.

For precise boundary details, please refer to paper map provided at designation

8. Geographical coordinates (latitude/longitude):

52 34 41 N 00 04 33 W

9. General location:

Include in which part of the country and which large administrative region(s), and the location of the nearest large town.

Nearest town/city: Peterborough

The site extends for 21 km east from Peterborough, in eastern England.

Administrative region: Cambridgeshire; City of Peterborough

10. Elevation (average and/or max. & min.) (metres): **11. Area** (hectares): 1517.49

Min. 1
Max. 6
Mean 2

12. General overview of the site:

Provide a short paragraph giving a summary description of the principal ecological characteristics and importance of the wetland.

This site is an extensive area of seasonally-flooding wet grassland (washland) of importance for national and international populations of breeding and wintering waders and wildfowl. During severe winter weather elsewhere, the site can attract waterfowl from other areas due to its relatively mild climate (compared with continental Europe) and abundant food resources available. The site is also notable for the diversity of plant and associated animal life within its network of dykes.

13. Ramsar Criteria:

Circle or underline each Criterion applied to the designation of the Ramsar site. See Annex II of the *Explanatory Notes and Guidelines* for the Criteria and guidelines for their application (adopted by Resolution VII.11).

2, 6

14. Justification for the application of each Criterion listed in 13 above:

Provide justification for each Criterion in turn, clearly identifying to which Criterion the justification applies (see Annex II for guidance on acceptable forms of justification).

Ramsar criterion 2

The site supports an important assemblage of nationally rare breeding birds. In addition, a wide range of raptors occur through the year. The site also supports several nationally scarce plants, and two vulnerable and two rare British Red Data Book invertebrate species have been recorded.

Ramsar criterion 6 – species/populations occurring at levels of international importance.

Qualifying Species/populations (as identified at designation):

Species with peak counts in winter:

Tundra swan , *Cygnus columbianus bewickii*, NW Europe	694 individuals, representing an average of 2.3% of the population (5 year peak mean 1998/9-2002/3)

Species/populations identified subsequent to designation for possible future consideration under criterion 6.

Species with peak counts in spring/autumn:

Black-tailed godwit , *Limosa limosa islandica*, Iceland/W Europe	482 individuals, representing an average of 1.3% of the population (5 year peak mean 1998/9-2002/3 - spring peak)

Species with peak counts in winter:

Northern pintail , *Anas acuta*, NW Europe	1848 individuals, representing an average of 3% of the population (5 year peak mean 1998/9-2002/3)

Contemporary data and information on waterbird trends at this site and their regional (sub-national) and national contexts can be found in the Wetland Bird Survey report, which is updated annually. See www.bto.org/survey/webs/webs-alerts-index.htm.

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15. Biogeography (required when Criteria 1 and/or 3 and /or certain applications of Criterion 2 are applied to the designation):

Name the relevant biogeographic region that includes the Ramsar site, and identify the biogeographic regionalisation system that has been applied.

a) biogeographic region:

Atlantic

b) biogeographic regionalisation scheme (include reference citation):

Council Directive 92/43/EEC

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16. Physical features of the site:

Describe, as appropriate, the geology, geomorphology; origins - natural or artificial; hydrology; soil type; water quality; water depth, water permanence; fluctuations in water level; tidal variations; downstream area; general climate, etc.

Soil & geology	acidic, basic, neutral, clay, alluvium, peat
Geomorphology and landscape	lowland, floodplain
Nutrient status	eutrophic
pH	circumneutral
Salinity	fresh
Soil	mainly organic
Water permanence	usually seasonal / intermittent

Summary of main climatic features	Annual averages (Cambridge, 1971–2000) (www.metoffice.com/climate/uk/averages/19712000/sites/cambridge.html) Max. daily temperature: 14.1° C Min. daily temperature: 6.1° C Days of air frost: 41.9 Rainfall: 553.5 mm Hrs. of sunshine: 1501.2

General description of the Physical Features:

The Nene Washes are an extensive area of seasonally-flooding wet grassland ('washland') lying along the River Nene.

17. Physical features of the catchment area:

Describe the surface area, general geology and geomorphological features, general soil types, general land use, and climate (including climate type).

The Nene Washes are an extensive area of seasonally-flooding wet grassland ('washland') lying along the River Nene.

18. Hydrological values:

Describe the functions and values of the wetland in groundwater recharge, flood control, sediment trapping, shoreline stabilization, etc.

Flood water storage / desynchronisation of flood peaks

19. Wetland types:

Human-made wetland, Inland wetland

Code	Name	% Area
4	Seasonally flooded agricultural land	100

20. General ecological features:

Provide further description, as appropriate, of the main habitats, vegetation types, plant and animal communities present in the Ramsar site, and the ecosystem services of the site and the benefits derived from them.

A mixture of largely arable land and agriculturally-improved, floristically-poor grassland. The latter being dominated by species such as *Elymus repens*, *Poa trivialis* and *Deschampsia cespitosa*. Areas of more structurally-diverse grassland exist containing a range of grasses, sedges and rushes. Species of frequent occurrence include *Eleocharis palustris*, *Glyceria fluitans*, *Glyceria maxima*, *Phalaris arundinacea*, *Alopecurus geniculatus* and *Juncus effusus*. A couple of small semi-natural grassland areas are also present. The washlands are used for the seasonal uptake of floodwaters and traditionally, cattle grazing in summer months. The mosaic of rough grassland and wet pasture provide a variety of habitats for breeding and feeding birds. Many of the ditches hold a rich flora and several nationally scarce plants including fringed water-lily *Nymphoides peltata*, hair-like pondweed *Potamogeton trichoides* and marsh dock *Rumex palustris*.

Ecosystem services

21. Noteworthy flora:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in **12**. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Nationally important species occurring on the site.

Higher Plants.
Nymphoides peltata, *Potamogeton trichoides*, *Rumex palustris*, *Potamogeton friesii*, *Alisma lanceolatum*, *Hordeum marinum*.

22. Noteworthy fauna:

Provide additional information on particular species and why they are noteworthy (expanding as necessary on information provided in **12**. Justification for the application of the Criteria) indicating, e.g. which species/communities are unique, rare, endangered or biogeographically important, etc., including count data. *Do not include here taxonomic lists of species present – these may be supplied as supplementary information to the RIS.*

Birds

Species currently occurring at levels of national importance:

Species with peak counts in winter:

Whooper swan , *Cygnus cygnus*, Iceland/UK/Ireland	80 individuals, representing an average of 1.3% of the GB population (5 year peak mean 1998/9-2002/3)
Eurasian wigeon , *Anas penelope*, NW Europe	9651 individuals, representing an average of 2.3% of the GB population (5 year peak mean 1998/9-2002/3)
Eurasian teal , *Anas crecca*, NW Europe	2015 individuals, representing an average of 1% of the GB population (5 year peak mean 1998/9-2002/3)
Northern shoveler , *Anas clypeata*, NW & C Europe	343 individuals, representing an average of 2.3% of the GB population (5 year peak mean 1998/9-2002/3)
Common pochard , *Aythya ferina*, NE & NW Europe	1795 individuals, representing an average of 3% of the GB population (5 year peak mean 1998/9-2002/3)
European golden plover , *Pluvialis apricaria apricaria*, P. a. altifrons Iceland & Faroes/E Atlantic	2949 individuals, representing an average of 1.1% of the GB population (5 year peak mean 1998/9-2002/3)
Ruff , *Philomachus pugnax*, Europe/W Africa	98 individuals, representing an average of 14% of the GB population (5 year peak mean 1998/9-2002/3)

Species Information

Nationally important species occurring on the site.

Invertebrates.
Valvata macrostoma, *Agabus undulatus*, *Libellula fulva*, *Anasimyia interpuncta*.

23. Social and cultural values:

Describe if the site has any general social and/or cultural values e.g. fisheries production, forestry, religious importance, archaeological sites, social relations with the wetland, etc. Distinguish between historical/archaeological/religious significance and current socio-economic values.

Aesthetic
Livestock grazing
Non-consumptive recreation
Sport hunting

b) Is the site considered of international importance for holding, in addition to relevant ecological values, examples of significant cultural values, whether material or non-material, linked to its origin, conservation and/or ecological functioning? No

If Yes, describe this importance under one or more of the following categories:

i) sites which provide a model of wetland wise use, demonstrating the application of traditional knowledge and methods of management and use that maintain the ecological character of the wetland:

ii) sites which have exceptional cultural traditions or records of former civilizations that have influenced the ecological character of the wetland:

iii) sites where the ecological character of the wetland depends on the interaction with local communities or indigenous peoples:

iv) sites where relevant non-material values such as sacred sites are present and their existence is strongly linked with the maintenance of the ecological character of the wetland:

24. Land tenure/ownership:

Ownership category	On-site	Off-site
Non-governmental organisation (NGO)	+	
Private	+	+
Private	+	+

25. Current land (including water) use:

Activity	On-site	Off-site
Nature conservation	+	
Recreation	+	
Permanent arable agriculture	+	+
Permanent pastoral agriculture	+	+
Hay meadows	+	
Flood control	+	
Transport route		+

26. Factors (past, present or potential) adversely affecting the site's ecological character, including changes in land (including water) use and development projects:

Explanation of reporting category:

1. *Those factors that are still operating, but it is unclear if they are under control, as there is a lag in showing the management or regulatory regime to be successful.*
2. *Those factors that are not currently being managed, or where the regulatory regime appears to have been ineffective so far.*

NA = Not Applicable because no factors have been reported.

Adverse Factor Category	Reporting Category	Description of the problem (Newly reported Factors only)	On-Site	Off-Site	Major Impact?
No factors reported	NA				

For category 2 factors only.

What measures have been taken / are planned / regulatory processes invoked, to mitigate the effect of these factors?
Is the site subject to adverse ecological change? NO

27. Conservation measures taken:

List national category and legal status of protected areas, including boundary relationships with the Ramsar site; management practices; whether an officially approved management plan exists and whether it is being implemented.

Conservation measure	On-site	Off-site
Site/ Area of Special Scientific Interest (SSSI/ASSI)	+	
Special Protection Area (SPA)	+	
Land owned by a non-governmental organisation for nature conservation	+	
Management agreement	+	
Site management statement/plan implemented	+	
Special Area of Conservation (SAC)	+	

b) Describe any other current management practices:

The management of Ramsar sites in the UK is determined by either a formal management plan or through other management planning processes, and is overseen by the relevant statutory conservation agency. Details of the precise management practises are given in these documents.

28. Conservation measures proposed but not yet implemented:

e.g. management plan in preparation; official proposal as a legally protected area, etc.

No information available

29. Current scientific research and facilities:

e.g. details of current research projects, including biodiversity monitoring; existence of a field research station, etc.

Fauna.

Numbers of migratory and wintering wildfowl and waders are monitored annually as part of the national Wetland Birds Survey (WeBS) organised by the British Trust for Ornithology, Wildfowl & Wetlands Trust, the Royal Society for the Protection of Birds and the Joint Nature Conservation Committee.

Annual breeding bird survey.

30. Current communications, education and public awareness (CEPA) activities related to or benefiting the site:

e.g. visitor centre, observation hides and nature trails, information booklets, facilities for school visits, etc.

Occasional guided walks are provided by RSPB warden.

31. Current recreation and tourism:

State if the wetland is used for recreation/tourism; indicate type(s) and their frequency/intensity.

Wildfowling and sport hunting annually from September to February.

32. Jurisdiction:

Include territorial, e.g. state/region, and functional/sectoral, e.g. Dept. of Agriculture/Dept. of Environment, etc.

Head, Natura 2000 and Ramsar Team, Department for Environment, Food and Rural Affairs, European Wildlife Division, Zone 1/07, Temple Quay House, 2 The Square, Temple Quay, Bristol, BS1 6EB

33. Management authority:

Provide the name and address of the local office(s) of the agency(ies) or organisation(s) directly responsible for managing the wetland. Wherever possible provide also the title and/or name of the person or persons in this office with responsibility for the wetland.

Site Designations Manager, English Nature, Sites and Surveillance Team, Northminster House, Northminster Road, Peterborough, PE1 1UA, UK

34. Bibliographical references:

Scientific/technical references only. If biogeographic regionalisation scheme applied (see **15** above), list full reference citation for the scheme.

Site-relevant references

Cranswick, PA, Waters, RJ, Musgrove, AJ & Pollitt, MS (1997) *The Wetland Bird Survey 1995–96: wildfowl and wader counts*. British Trust for Ornithology, Wildfowl and Wetlands Trust, Royal Society for the Protection of Birds & Joint Nature Conservation Committee, Slimbridge

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Stroud, DA, Chambers, D, Cook, S, Buxton, N, Fraser, B, Clement, P, Lewis, P, McLean, I, Baker, H & Whitehead, S (eds.) (2001) *The UK SPA network: its scope and content*. Joint Nature Conservation Committee, Peterborough (3 vols.) www.jncc.gov.uk/UKSPA/default.htm

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Telephone: **+41 22 999 0170** • Fax: **+41 22 999 0169** • email: **ramsar@ramsar.org**

Appendix 3 Conservation Assessment Criteria

Non-statutory conservation criteria

Birds of Conservation Concern

The UK's leading bird conservation organisations have worked together on the fifth quantitative review of the status of the birds that occur regularly here published in 2021, updating the last review in 2021 (Stanbury *et al.,* 2021). A total of 245 species have been assessed against a set of objective criteria to place each on one of three lists – green, amber and red – indicating an increasing level of conservation concern. There are 70 species on the Red-list, 103 on the Amber-list and 72 on the Green list. The Red-list has increased by three species since 2015. The Amber-list has increased by seven since 2015.

The UK's birds can be split into three categories of conservation importance - red, amber and green.

Red is the highest conservation priority, with species needing urgent action. Amber is the next most critical group, followed by Green.

Birds in the Red and Amber Lists will be subject to at least one of the relevant factors listed below.

Red list criteria

- Globally threatened;
- Historical population decline in UK during 1800–1995;
- Severe (at least 50%) decline in UK breeding population over last 25 years, or longer-term period (the entire period used for assessments since the first BoCC review, starting in 1969); and/or,
- Severe (at least 50%) contraction of UK breeding range over last 25 years, or the longer-term period.

Amber list criteria

- Species with unfavourable conservation status in Europe (SPEC = Species of European Conservation Concern);

- Historical population decline during 1800–1995, but recovering; population size has more than doubled over last 25 years;
- Moderate (25-49%) decline in UK breeding population over last 25 years, or the longer-term period;
- Moderate (25-49%) contraction of UK breeding range over last 25 years, or the longer-term period;
- Moderate (25-49%) decline in UK non-breeding population over last 25 years, or the longer-term period;
- Rare breeder; 1–300 breeding pairs in UK;
- Rare non-breeders; less than 900 individuals;
- Localised; at least 50% of UK breeding or non-breeding population in 10 or fewer sites, but not applied to rare breeders or non-breeders; and/or,
- Internationally important; at least 20% of European breeding or non-breeding population in UK (NW European and East Atlantic Flyway populations used for non-breeding wildfowl and waders respectively).

Green list

Species that occur regularly in the UK but do not qualify under any or the above criteria.

Appendix 4: Legislation and Planning Policy

Important Notice: This section contains details of legislation applicable in England and Wales only (i.e. not including Scotland, the Isle of Man, Northern Ireland, the Republic of Ireland or the Channel Islands) and is provided for general guidance only. While every effort has been made to represent the current (at the time of writing) situation with respect to the UK's position outside of the EU and to ensure accuracy throughout, this section should not be relied upon as a definitive statement of the law.

Over the past few years, three important bills have been published which are intended to shape how growing pressures on the environment post-Brexit (post-transition period) are tackled. Both the Agriculture Bill and Fisheries Bill gained Royal Assent in November 2020 and are now the Agriculture Act 2020 and Fisheries Act 2020 respectively; and, more recently, the Environment Bill was passed into law in November 2021, becoming the Environment Act 2021. *N.B. as environment policy is a devolved matter, most of this Act applies to England only.*

LEGISLATION AFFORDED TO SITES AND HABITATS

Habitats and sites can be protected directly through the Wildlife & Countryside Act 1981 (as amended), The Conservation of Habitats and Species Regulations 2017 (as amended) and the 'Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) through the notification, classification or designation of various protected sites as detailed below.

In addition, The Environment Act 2021 and the Water Framework Directive indirectly afford protection to non-designated habitats through the duties placed on public and private bodies to promote nature conservation and biodiversity, for example, the creation of Local Nature Recovery Strategies (LNRS) and associated Species Conservation and Protected Site strategies, and to reduce or avoid harmful activities. Many of these duties and targets form the basis for national and local planning policy and wider conservation strategies and are not covered in detail here.

STATUTORY SITE DESIGNATIONS: NATIONAL

Nationally important areas of special scientific interest, by reason of their flora, fauna, or geological or physiographical features, are notified by the countryside agencies as statutory **SSSI** under the National Parks and Access to the Countryside Act 1949 and latterly the Wildlife & Countryside Act 1981 (as amended). As well as underpinning other national designations (such as **National Nature Reserves** which are declared by the countryside agencies under the same legislation), the system also provides statutory protection for terrestrial and coastal sites which are important within a European context (formerly referred to as part of the Natura 2000 network and recently amended to the National Site Network in line with the UK's departure from the EU) and globally (such as Wetlands of International Importance) - see subsequent sections for details of these designations. Improved provisions for the protection and management of SSSI have been introduced by the Countryside and Rights of Way Act 2000.

The Wildlife & Countryside Act 1981 (as amended) also provides for the making of **Limestone Pavement Orders**, which prohibit the disturbance and removal of limestone from such designated areas, and the designation of **Marine Nature Reserves**, for which byelaws must be made to protect them.

STATUTORY SITE DESIGNATIONS: INTERNATIONAL

Special Protection Areas (SPAs), together with **SACs** form the basis of the **National Site Network** (until recently, these were part of the Natura 2000 network whilst the UK was part of the EU). SPAs are identified and classified by the Government under the EC Birds Directive (Council Directive 2009/147/EC (formerly 79/409/EEC)) on the Conservation of Wild Birds) via the mechanisms set out in the Habitats Regulations (as applicable at the time of classification).

SPAs are areas of the most important habitat for rare (listed on Annex I of the Directive) and migratory birds within the European Union. Protection afforded SPAs in terrestrial areas and territorial marine waters out to 12 nautical miles (nm) is given by The Conservation of Habitats & Species Regulations 2017 (as amended). The 'Conservation of

Offshore Marine Habitats and Species Regulations 2017 (as amended) provide a mechanism for the classification and protection of European Marine Sites or EMS (SPAs and SACs) in UK offshore waters (from 12-200 nm).

SACs are identified and designated under the EC Habitats Directive (Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora) via the mechanisms set out in the Habitats Regulations (as applicable at the time of designation). These are areas which have been identified as best representing the range and variety of habitats and (non-bird) species listed on Annexes I and II to the Directive within the European Union. SACs in terrestrial areas and territorial marine waters out to 12 nautical miles are protected under The Conservation of Habitats & Species Regulations 2017 (as amended). The 'Conservation of Offshore Marine Habitats and Species Regulations 2017 (as amended) provide a mechanism for the designation and protection of European marine sites or EMS (SACs and SPAs) in UK offshore waters (from 12-200 nm).

Ramsar sites are listed under the Convention on Wetlands of International Importance, agreed in Ramsar, Iran, in 1971. The Convention covers all aspects of wetland conservation and wise use, in particular recognizing wetlands as ecosystems that are globally important for biodiversity conservation. Wetlands can include areas of marsh, fen, peatland or water and may be natural or artificial, permanent or temporary. Wetlands may also incorporate riparian and coastal zones adjacent to the wetlands. Ramsar sites are underpinned through prior notification as SSSI and as such receive statutory protection under the Wildlife & Countryside Act 1981 (as amended) with further protection provided by the Countryside and Rights of Way (CRoW) Act 2000. Policy statements have been issued by the Government highlighting the special status of Ramsar sites. This effectively extends the level of protection to that afforded to sites in England and Wales which have been designated under the EC Birds and Habitats Directives as part of the Natura 2000 network and now the National Site Network (e.g. SACs and SPAs).

NATURAL ENVIRONMENT AND RURAL COMMUNITIES ACT 2006 (NERC)

The Natural Environment and Rural Communities (NERC) Act came into force on the 1 October 2006. Section 40 of the Act requires all public bodies to have regard to

biodiversity conservation when carrying out their functions. This is commonly referred to as the 'biodiversity duty'.

Section 41 of the Act (Section 42 in Wales) requires the Secretary of State to publish a list of habitats and species which are of 'principal importance for the conservation of biodiversity.' This list is intended to assist decision makers such as public bodies in implementing their duty under Section 40 of the Act. Under the Act, these habitats and species are regarded as a material consideration in determining planning applications. A developer must show that their protection has been adequately addressed within a development proposal.

PLANNING POLICY

The National Planning Policy Framework (NPPF) replaced Planning Policy Statement 9 in 2012 and emphasises the need for sustainable development. The NPPF specifies the need for protection of designated sites and priority habitats and priority species. An emphasis is also made for the need for ecological networks via preservation, restoration and re-creation (Ministry of Housing, Communities and Local Government, 2021). The protection and recovery of priority species (widely taken to mean (SPI under S41 of the NERC Act) is also listed as a requirement of planning policy. In determining planning application, planning authorities have a duty to conserve and enhance biodiversity by ensuring the following:

- Designated sites are protected from adverse harm;
- There is appropriate mitigation or compensation where significant harm cannot be avoided;
- Opportunities to incorporate biodiversity in and around developments are encouraged; and
- Planning permission is refused for development resulting in the loss or deterioration of irreplaceable habitats including aged or veteran trees and also ancient woodland.

REGIONAL AND LOCAL BAPS

The Lincolnshire Biodiversity Action Plan (BAP)[5] identifies 17 species as needing targeted action to secure their status. The Lincolnshire Greater Lincolnshire Nature Partnership, a partnership including 49 representatives, ensures the monitoring and implementation of the objectives associated with these plans.

[5] CHttpHandler.ashx (southkesteven.gov.uk)

Appendix 5: Bird Species List

English name	*Scientific Name*	BOCC5	S41	Sch 1	LBAP
Barn owl	*Tyto alba*			**Yes**	**Yes**
Blackbird	*Turdus merula*				
Black-headed gull	*Chroicocephalus ridibundus*	**Amber**			
Blue tit	*Cyanistes caeruleus*				
Brambling	*Fringilla montifringilla*			**Yes**	
Buzzard	*Buteo buteo*				
Carrion crow	*Corvus corone*				
Chaffinch	*Fringilla coelebs*				
Chiffchaff	*Phylloscopus collybita*				
Collared dove	*Streptopelia decaocto*				
Common gull	*Larus canus*	**Amber**			
Cormorant	*Phalacrocorax carbo*				
Corn bunting	*Emberiza calandra*	**Red**	**Yes**		
Crane	*Grus grus*	Amber			
Dunnock	*Prunella modularis*	**Amber**	**Yes**		**Yes**
Fieldfare	*Turdus pilaris*	**Red**		**Yes**	
Golden plover	*Pluvialis apricaria*				
Goldfinch	*Carduelis carduelis*				
Goosander	*Mergus merganser*				
Great spotted woodpecker	*Dendrocopos major*				
Great tit	*Parus major*				
Green woodpecker	*Picus viridis*				
Greenfinch	*Chloris chloris*	**Red**			
Grey heron	*Ardea cinerea*				
Grey partridge	*Perdix perdix*	**Red**	**Yes**		**Yes**
Herring gull	*Larus argentatus*	**Red**	**Yes**		
House sparrow	*Passer domesticus*	**Red**	**Yes**		
Jackdaw	*Coloeus monedula*				
Kestrel	*Falco tinnunculus*	**Amber**			
Kingfisher	*Alcedo atthis*			**Yes**	
Lapwing	*Vanellus vanellus*	**Red**	**Yes**		**Yes**
Lesser black-backed gull	*Larus fuscus*	**Amber**			

English name	*Scientific Name*	BOCC5	S41	Sch 1	LBAP
Linnet	*Linaria cannabina*	**Red**	**Yes**		**Yes**
Little egret	*Egretta garzetta*				
Little grebe	*Tachybaptus ruficollis*				
Long-tailed tit	*Aegithalos caudatus*				
Magpie	*Pica pica*				
Mallard	*Anas platyrhynchos*	**Amber**			
Marsh harrier	*Circus aeruginosus*	**Amber**		**Yes**	
Meadow pipit	*Anthus pratensis*	**Amber**			
Mistle thrush	*Turdus viscivorus*	**Red**			
Moorhen	*Gallinula chloropus*	**Amber**			
Mute swan	*Cygnus olor*				
Peregrine	*Falco peregrinus*			**Yes**	
Pheasant	*Phasianus colchicus*				
Pied wagtail	*Motacilla alba*				
Pink-footed goose	*Anser brachyrhynchus*	**Amber**			
Red kite	*Milvus milvus*			**Yes**	
Red-legged partridge	*Alectoris rufa*				
Redshank	*Tringa totanus*	**Amber**			**Yes**
Redwing	*Turdus iliacus*	**Amber**		**Yes**	
Reed bunting	*Emberiza schoeniclus*	**Amber**	**Yes**		**Yes**
Robin	*Erithacus rubecula*				
Rook	*Corvus frugilegus*	**Amber**			
Shelduck	*Tadorna tadorna*	**Amber**			
Skylark	*Alauda arvensis*	**Red**	**Yes**		**Yes**
Snipe	*Gallinago gallinago*	**Amber**			**Yes**
Song thrush	*Turdus philomelos*	**Amber**			**Yes**
Sparrowhawk	*Accipiter nisus*	**Amber**			
Starling	*Sturnus vulgaris*	**Red**	**Yes**		**Yes**
Stock dove	*Columba oenas*	**Amber**			
Stonechat	*Saxicola rubicola*				
Teal	*Anas crecca*	**Amber**			
Whooper swan	*Cygnus cygnus*	**Amber**		**Yes**	
Woodcock	*Scolopax rusticola*	**Red**			
Woodpigeon	*Columba palumbus*	**Amber**			

English name	*Scientific Name*	BOCC5	S41	Sch 1	LBAP
Wren	*Troglodytes troglodytes*	**Amber**			
Yellowhammer	*Emberiza citrinella*	**Red**	**Yes**		**Yes**

Appendix 6: Transect Results

Species	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	March 2023	Peak Count
barn owl							
T3						2	2
blackbird							
T1	1	11	5	5	5		11
T2		1	4	7	3	1	7
T3	3	3	5	6	2	2	6
T4	1		1		1		1
T5	1			3			3
T6	3	1	2			1	3
black-headed gull							
T1	1	37	9		269		269
T2	8		9			2	9
T3	25	129	4	155	41	106	155
T4	6		9	4	13	11	13
T5	7		3	4	9		9
T6	6	28	3	1	4	10	28
blue tit							
T1			2	1	1	1	2
T2			4	3		1	4
T3		3	3	1	2	2	3
T5						6	6
T6			2			3	3
brambling							
T2				8	1		8
T3				22			22
buzzard							
T1	5	3	2	4	2	3	5
T2	5	1	4	4	5	4	5
T3		3	2	2	6	2	6
T4		1	1				1
T5			2				2
T6			1				1
carrion crow							
T1	25	7	6	26	14	15	26
T2	17	16	50	7	14	14	50
T3	20	17	40	24	15	21	40
T4		19	3			10	19
T5						12	12
T6		12	6	8		12	12
chaffinch							
T1	36	1	2	1			36
T2		1	10	22	53	12	53
T3	16	4	1	1	7	2	16
T4		2					2

Species	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	March 2023	Peak Count
T6		3					3
chiffchaff							
T1						2	2
T2						1	1
T3						2	2
collared dove							
T2						1	1
T3		1	2		2	2	2
common gull							
T1	1					4	4
T2						1	1
T3	12	7		20	3	6	20
cormorant							
T1		1	1		1	3	3
T3	5	6	2			1	6
corn bunting							
T3	6		78				78
crane							
T1		4					4
dunnock							
T3				1	1		1
T4			1		2		2
T5			1		2	2	2
T6	4	1	2	1	1	2	4
fieldfare							
T1	7	162	25	11	30		162
T2	12		20	12	60		60
T3	36	41	1	56	41	101	101
T4		30	10	6			30
T5		43	20				43
T6		25	17				25
golden plover							
T1	50	33					50
T2				22		15	22
T3		150				80	150
goldfinch							
T1	7	7		2	7		7
T2	3				1	6	6
T3	4	6		32	6	4	32
T4		8					8
goosander							
T1				3		1	3
T3		2		2			2
great spotted woodpecker							
T1					1		1

Species	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	March 2023	Peak Count
great tit							
T1	1	4		5	2		5
T2	1	1	3	6	5	1	6
T3	3	3	3	5	3		5
T6			1			2	2
green woodpecker							
T1						2	2
T3			1				1
greenfinch							
T1	6					4	6
T2	3		6	12	5		12
T3	2				1	1	2
grey heron							
T1	1	2	1				2
T3	2	1			1		2
grey partridge							
T2			2				2
herring gull							
T1		2				6	6
T2	1			5	4	5	5
T3				2		15	15
T4		6		1	9	7	9
T5					8		8
T6				3	2	2	3
house sparrow							
T1					1		1
T3		10	19	7			19
jackdaw							
T1	26	12	21	108	93	132	132
T2	11	31	9	19	67	64	67
T3	10	18	96	159	30	35	159
T5	3						3
T6	9						9
kestrel							
T1	1	1	2	2	3	3	3
T2	3	2	2	6	2	3	2
T3	4	3	3	1	1	1	4
kingfisher							
T3	1						1
lapwing							
T1	500	250		34	150		500
T2	2	63	14		120	4	120
T3	1	45	18				45
T4		1					1
lesser black-backed gull							

Species	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	March 2023	Peak Count
T1		8		2		5	8
T2	9	1	6		5	3	9
T3	5	8		1		37	37
linnet							
T1	20	2	1	50	101	55	101
T2	8	1	62	170	3		170
T3	8	71	6	70	37		71
little egret							
T1			1			1	1
T3	1	5	1		2	1	5
little grebe							
T3		3					3
long-tailed tit							
T1				1		6	6
T2			18			2	18
T3	9	1			1		9
magpie							
T1		3	1	6		5	6
T2	1	1		3		3	3
T3	1				1	2	2
T5	3					4	4
mallard							
T1	22	17	6	7	8	29	29
T2		12		5	8	9	12
T3		20		26	32	22	32
T4							
T5						2	2
T6							
marsh harrier							
T1			1	1			1
meadow pipit							
T1		6	2	3		1	6
T2	14	24	8	2	1	2	24
T3	11	23	28	6	2	5	28
mistle thrush							
T2		1					1
T3		1				1	1
moorhen							
T1	3			1	2		3
T3		4	5	3			5
mute swan							
T1		40					40
T3	11	11		2	9		11
peregrine1							
T2	1						1

Species	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	March 2023	Peak Count
pheasant							
T1	3	11	5	8	11	18	18
T2	9	17	21	4	52	7	52
T3	17	6	16	7	9	5	17
T4	9	6	1	5	4	2	9
T5	3	2	4	2	3	6	6
T6	5	3		2	1	2	5
pied wagtail							
T1	1			1		1	1
T2		1				1	1
T3	2	1			1	2	2
pink-footed goose							
T1				26			26
red kite							
T1			2	1			2
T2			3				3
red-legged partridge							
T1				4	2		4
T2		15			2		15
T3		10	1		1		10
T4		8					8
T5		7	4		3		7
T6	7	6			2		7
redshank							
T1		6					6
T2	1						1
T3	2	8	1		1		8
redwing							
T1			5				5
T2			10	5	29		29
T3				1	6		6
T4		20	5	4			20
T5		5	6				6
T6		9	7				9
reed bunting							
T1	1	1				9	9
T2	3	2	5	45	45	15	45
T3		1	7	31	1	4	31
robin							
T1			2	2	5		5
T2	1	2	1	1	4		4
T3	2	2	4	2	2	1	4
T4			1		1		1
T6	2					2	2
rook							

Species	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	March 2023	Peak Count
T1						22	22
T2	107		47	35	34	9	107
T3	260	162	266	120	120	183	266
T4							
T5	10		8			27	27
T6	28	6	6	8		5	28
shelduck							
T1						2	2
skylark							
T1		2	55	32	16	8	55
T2	15	31	10	1	32	28	32
T3	12	22	3	9	21	17	22
snipe							
T1			3				3
T3					8		8
song thrush							
T1						1	1
T2					2		2
T3					2		2
T4		10					10
T6	2		2				2
sparrowhawk							
T1							
T2	1		2	2	1		2
T3			1				1
starling							
T1	43		45	109	24	1	109
T2	32	12	5		143	1	143
T3	185	58	50	143	6		185
T4			18				18
T5				23			23
T6				34			34
stock dove							
T1				26	19		26
T2				8			8
T3						20	20
stonechat							
T1			2				2
T2	2						2
T3			1	1			1
teal							
T2				12	2		12
whooper swan							
T1	82			19			82
T2	32			20			32

Species	Oct 2022	Nov 2022	Dec 2022	Jan 2023	Feb 2023	March 2023	Peak Count
T3	2				4		4
woodcock							
T2					4	1	4
woodpigeon							
T1	58	154	103	438	150	70	438
T2	346	192		353	302	406	406
T3	303	610	694	223	1254	304	1254
T4	9	24	8	1	18	13	24
T5	20	42	9	22	11	4	42
T6	18	16	14	6	9	18	18
wren							
T1	2	5	3	4	3	3	5
T2	2	1		1	3	3	3
T3	6	2		1		2	6
T4	1		1	1	3		3
T5	3		2		2	2	3
T6	2	1	1	3	1	1	3
yellowhammer							
T2	2				1		2
T3	1				13	1	13

Appendix 7: Survey Results Maps: Linnet and Skylark

Figure 1: Transect 1

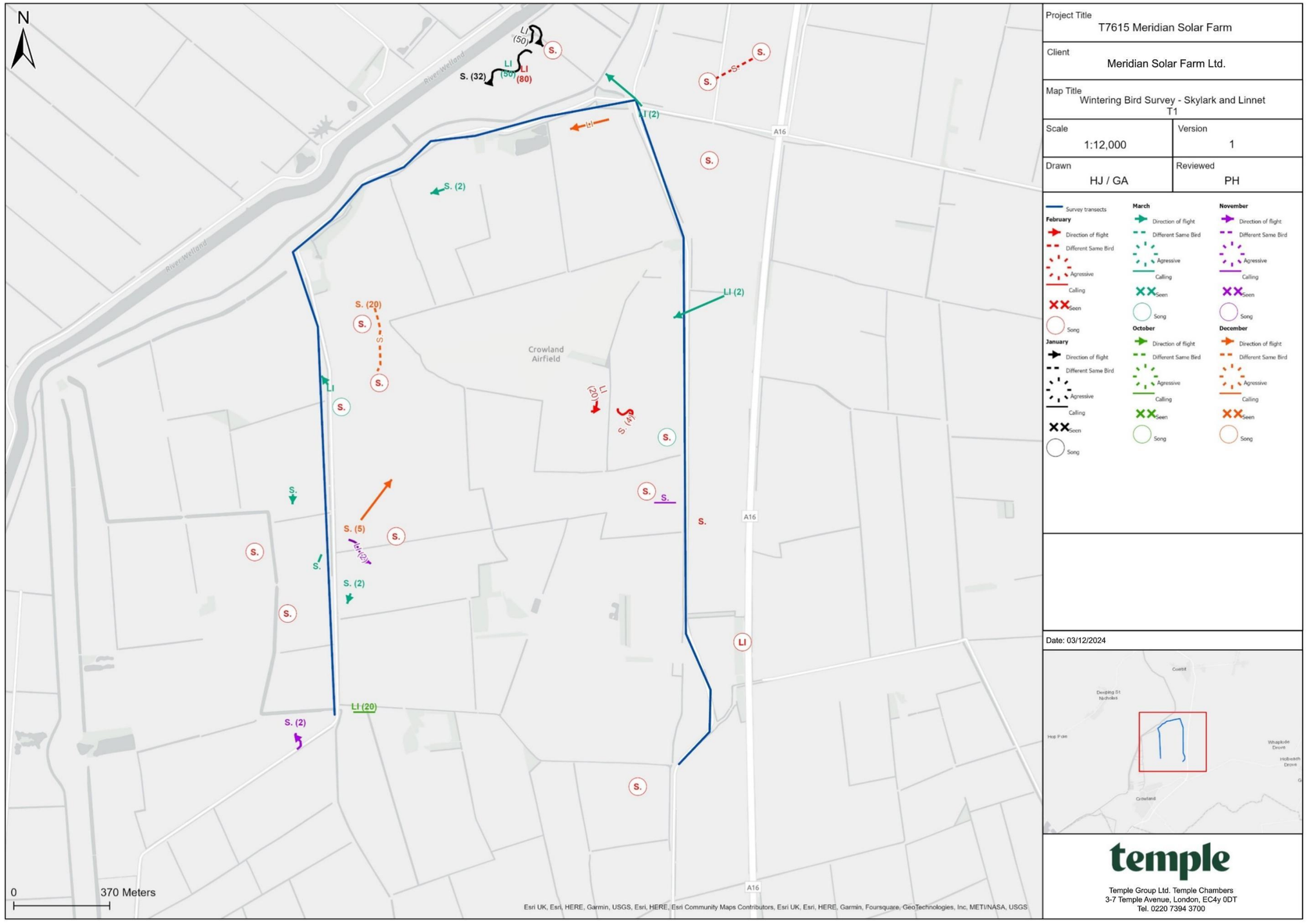


Figure 2: Transect 2

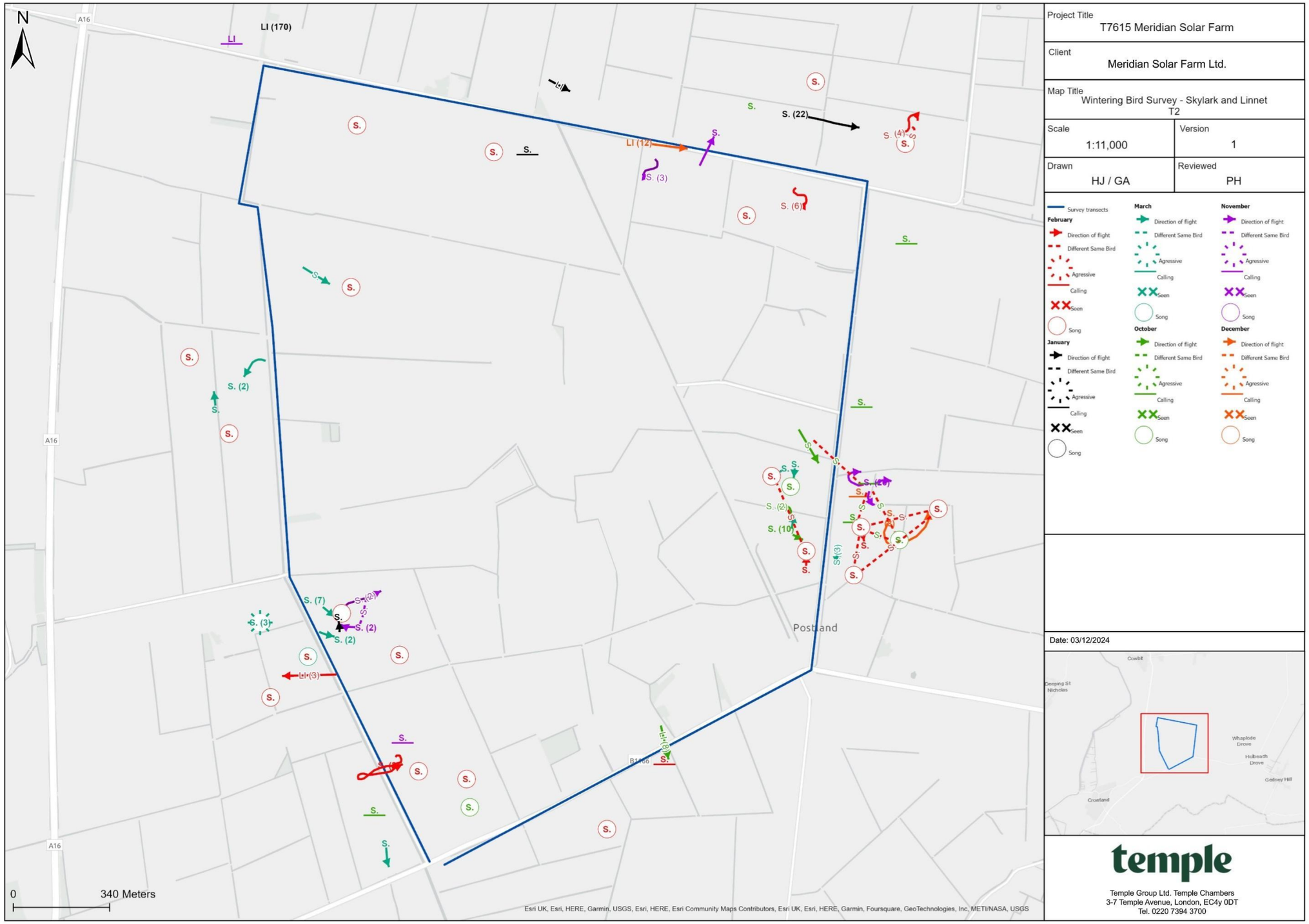
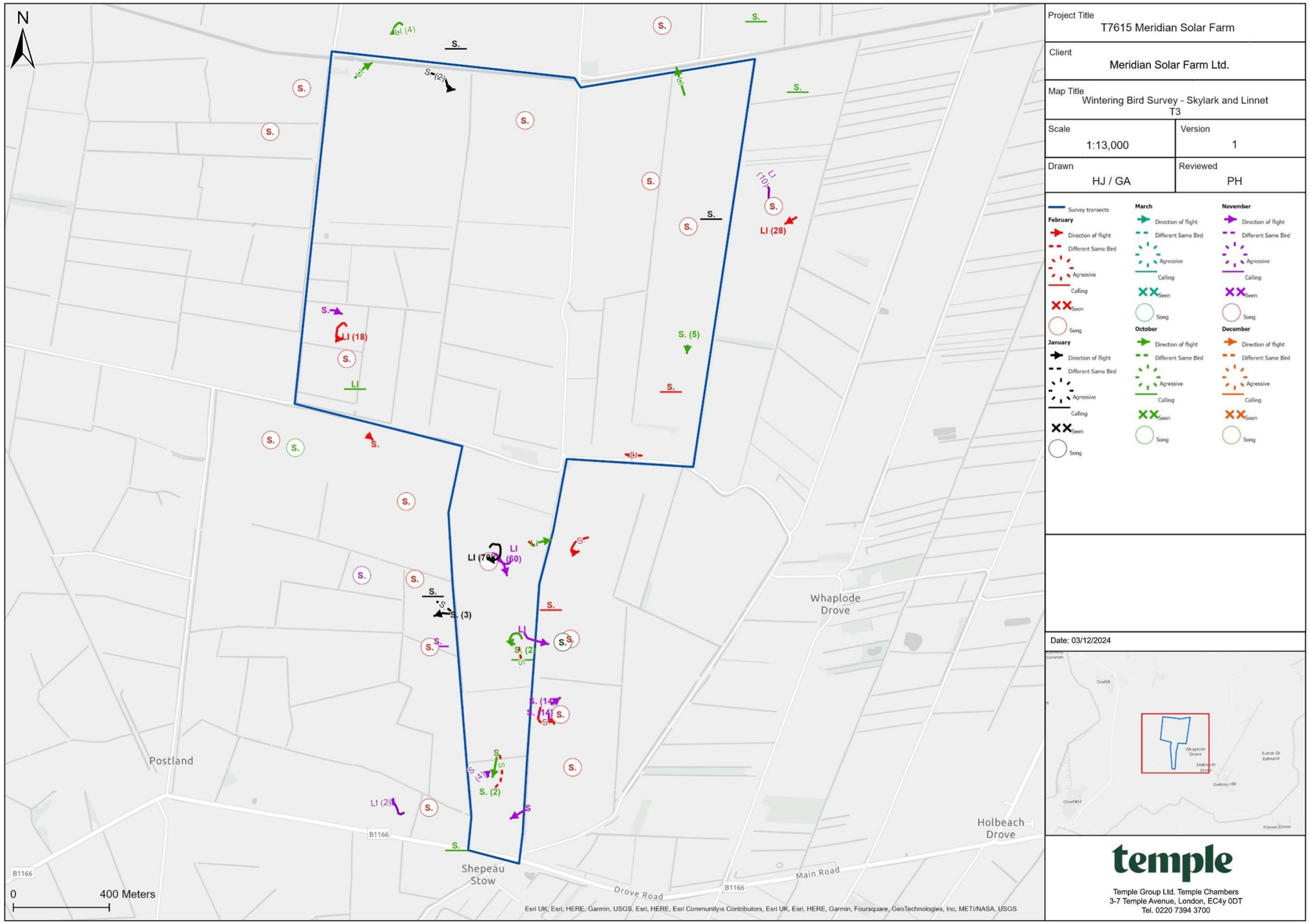


Figure 3: Transect 3



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